2024 CCR ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

MULTI-UNIT ASH POND SYSTEM

PETERSBURG GENERATING STATION

PREPARED FOR:
Mr. David Heger
Senior Counsel
AES US Services. LLC
One Monument Circle, Suite 701A
Indianapolis, IN 46204-2901

PREPARED BY:
Atlas Technical Consultants LLC
7988 Centerpoint Drive, Suite 100
Indianapolis, IN 46256

January 30, 2025

January 30, 2025 Atlas Project No. 170AES0003

Mr. David M. Heger
Senior Counsel
AES US Services, LLC
One Monument Circle, Suite 701A
Indianapolis, Indiana 46204-2901

Re: 2024 CCR Annual Groundwater Monitoring and Corrective Action Report
Indianapolis Power & Light Company d/b/a AES Indiana (AESI)
Petersburg Generating Station – Multi-Unit Ash Pond System
Petersburg, Indiana
Atlas Project No. 170AES0003

Dear Mr. Heger:

Atlas Technical Consultants LLC (Atlas) has prepared this 2024 CCR Annual Groundwater Monitoring and Corrective Action Report for the Ash Pond System at the AESI Petersburg Generating Station located outside Petersburg, Pike County, Indiana. This report has been prepared to comply with reporting requirements described in the United States Environmental Protection Agency's (USEPA) Coal Combustion Residuals (CCR) Rule § 257.90(e). This annual report documents the status of the groundwater monitoring and corrective action program for the ash pond system and includes information required by § 257.90(e)(1) through § 257.90(e)(6).

Federal CCR Rule § 257.90(e)(6) specifies the following:

A section at the beginning of the annual report that provides an overview of the current status of groundwater monitoring and corrective action programs for the CCR unit. At a minimum, the summary must specify all of the following: (i) At the start of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in § 257.94 or the assessment monitoring program in § 257.95; (ii) At the end of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in § 257.94 or the assessment monitoring program in § 257.95; (iii) If it was determined that there was a statistically significant increase over background for one or more constituents listed in appendix III to this part pursuant to § 257.94(e): (A) Identify those constituents listed in appendix III to this part and the names of the monitoring wells associated with such an increase; and (B) Provide the date when the assessment monitoring program was initiated for the CCR unit. (iv) If it was determined that there was a statistically significant level above the groundwater protection standard for one or more constituents listed in appendix IV to this part pursuant to § 257.95(g) include all of the following: (A) Identify those constituents listed in appendix IV to this part and the names of the monitoring wells associated with such an increase; (B) Provide the date when the assessment of corrective measures was initiated for the CCR unit; (C) Provide the date when the public meeting was held for the assessment of corrective measures for the CCR unit; and (D) Provide the date when the assessment of corrective measures was completed for the CCR unit. (v) Whether a

remedy was selected pursuant to § 257.97 during the current annual reporting period, and if so, the date of remedy selection; and (vi) Whether remedial activities were initiated or are ongoing pursuant to § 257.98 during the current annual reporting period.

Overview of 2024 Groundwater Monitoring and Corrective Action

For the duration of the 2024 reporting period, the CCR units at the Petersburg Generating Station – Ash Pond System were being monitored under the Assessment Monitoring Program defined in § 257.95. Pursuant to 40 CFR 257.94(e)(2), 257.94(e)(3) and 257.95(b), the facility had previously established an Assessment Monitoring Program in accordance with the requirements of § 257.95 on July 16, 2018. Therefore, evaluation of statistically significant increase over background for one or more constituents listed in Appendix III to this part pursuant to § 257.94(e) was not performed in 2024.

At the end of the 2024 reporting period, it was determined that the following Appendix IV constituents were present at statistically significant levels (SSLs) above the associated groundwater protection standards (GWPS) pursuant to § 257.95(g)[1]. The SSLs are as follows:

Cadmium	Cobalt	Molybdenum
AP-8[2]	AP-8[3]	AP-2A

The above listed SSLs are not new constituent SSLs and were previously identified. Therefore, no new SSL notification was required pursuant to § 257.94(e).

The assessment of corrective measures was initiated for the Petersburg Generating Station CCR regulated units on April 15, 2019 in response to SSLs of Appendix IV constituents exceeding GWPS. Pursuant to 40 CFR §257.96(a), a demonstration of need for a 60-day extension for the assessment of corrective measures was completed on July 12, 2019. The Corrective Measures Assessment (CMA) Report was completed and placed in the facility operating record on September 13, 2019 and subsequently amended on October 11, 2019. The nature and extent of CCR affected groundwater has been sufficiently characterized to support a CMA public meeting and subsequent selection of remedy. At an appropriate time, a public meeting will be held, a remedy will be selected pursuant to § 257.97, and implementation of the selected remedy will be initiated thereafter in accordance with § 257.98.

[1] SSLs provided are based on the May 2024 monitoring event as November 2024 sampling data was not finalized in 2024.

[2] An Alternate Source Demonstration (ASD) was successfully completed pursuant to § 257.95(g)(3)(ii) in October 2019 for total cadmium in monitoring well AP-8. The ASD report was provided as an attachment to the 2019 CCR Annual Groundwater Monitoring and Corrective Action Report dated January 30, 2020 for the AESI Petersburg Generating Station – Ash Pond System.

[3] An ASD was successfully completed pursuant to § 257.95(g)(3)(ii) in October 2019 for total cobalt in monitoring well AP-8. The ASD report was provided as an attachment to the 2019 CCR Annual Groundwater Monitoring and Corrective Action Report dated January 30, 2020 for the AESI Petersburg Generating Station – Ash Pond System.

Federal CCR Rule § 257.90(e) specifies the following:

> *For existing CCR landfills and existing CCR surface impoundments, no later than January 31, 2019, and annually thereafter, the owner or operator must prepare an annual groundwater monitoring and corrective action report. For new CCR landfills, new CCR surface impoundments, and all lateral expansions of CCR units, the owner or operator must prepare the initial annual groundwater monitoring and corrective action report no later than January 31 of the year following the calendar year a groundwater monitoring system has been established for such CCR unit as required by this subpart, and annually thereafter. For the preceding calendar year, the annual report must document the status of the groundwater monitoring and corrective action program for the CCR unit, summarize key actions completed, describe any problems encountered, discuss actions to resolve the problems, and project key activities for the upcoming year. For purposes of this section, the owner or operator has prepared the annual report when the report is placed in the facility's operating record as required by § 257.105(h)(1).*

The following key actions have been completed in 2024 to comply with 40 CFR 257.90-98:

- Efforts to determine the nature and extent (N&E) of the Appendix IV SSLs continued pursuant to § 257.95(g) including but not limited to the review of groundwater analytical results/data to improve the groundwater conceptual site model.

- November 2023 laboratory analytical reports were finalized and placed in the facility operating record pursuant to 40 CFR 257.95(d)(1).

- In the March 22, 2024, Indiana Department of Environmental Management (IDEM) review letter (VFC# 83614895) for the November 2023 Statistical Analysis of November 2023 Groundwater Quality Data – Addendum No. 1 for the conditionally converted RWS III Landfill (dated February 27, 2024 – VFC # 83603234), IDEM requested submittal of a surface water sampling plan to address exceedances of the groundwater protection standard (GWPS, 4.0 milligrams per liter (mg/L)) and surface water quality standard (SWQS, 7.7 mg/L) for total boron at multiple outermost downgradient monitoring wells.
- A Groundwater Nature and Extent Investigation Surface Water Sampling and Analysis Plan (Surface Water SAP, VFC# 83636046) dated May 6, 2024 was submitted to IDEM.
- Based on comments provided in IDEM's review letter (VFC# 83652183) dated June 13, 2024, a revised Surface Water SAP (VFC# 83659483) dated June 27, 2024, was submitted to IDEM. IDEM approved the revised Surface Water SAP in a letter (VFC# 83667777) dated July 12, 2024.
- Surface water samples were collected along the White River on August 19, 2024 in accordance with the SAP.

- A report dated October 18, 2024 (VFC# 83714709) that summarized the findings of the surface water sampling event was submitted to IDEM.

- AESI obtained access from off-site property owners (west of the White River);

- Performed environmental permit assessment to identify applicable permits necessary to conduct supplemental N&E work on offsite properties);

- Submitted a Letter of Authorization (LOA) to the Indiana Department of Natural Resources (IDNR) in July 2024 to conduct supplemental N&E work on offsite properties;

- Obtained LOA from IDNR in August 2024.

- Completed N&E investigation activities in October 2024.

- Collected groundwater samples from nested N&E monitoring wells during the May 2024 and November 2024 semi-annual sampling events to;

  - Define the horizontal and vertical extent of Appendix IV constituents along the White River;

  - Supplement and enhance the evaluation of the extent of groundwater impacts and assessment of corrective measures;

  - Inform what additional steps, if any, are necessary to fully delineate N&E of Appendix IV constituents; and

  - Support the selection of remedy.

- Collected the fourth, fifth, and sixth rounds of groundwater samples from the six (6) supplemental N&E monitoring wells (AP-9B, AP-9I, AP-10B, AP-10I, AP-11B, AP-11I) during February 2024, May 2024, and November 2024 sampling events.

- Semi-annual assessment monitoring sampling events were conducted in 2024 as required by § 257.95(b) and § 257.95(d)(1). Pursuant to 40 CFR 257.95(b), each Appendix IV constituent was sampled in 2024. Pursuant to 40 CFR 257.95(d)(1), semi-annual sampling of each Appendix III parameter and Appendix IV constituent detected in response to 40 CFR 257.95(b) was conducted in 2024. Specifically, each Appendix IV constituent was sampled during the spring event. If a constituent is not detected at the site during the spring event, it is not analyzed during the fall event. Each sampling event was performed consistent with 40 CFR 257.93(e). Subsequent SSL evaluation of the November 2023 and May 2024 data were performed within 90 days of completing the sampling and analysis pursuant to § 257.93(h)(2)[4].

- Semi-Annual Remedy Selection Progress Reports pursuant to § 257.97(a) for the period of September 22, 2023 through March 24, 2024, and for the period of March 25, 2024

[4] Sampling results for the November 2023 and May 2024 semi-annual assessment monitoring events are summarized in **Table 3** and **Table 6**, respectively. Please refer to Section § 257.90(e)(4) on Page 11 of this report regarding SSL evaluation results.

through September 18, 2024 were completed and placed in the facility's operating record and posted to AESI's CCR Website.

To report on the activities conducted during the prior calendar year and document compliance with the CCR Rule, the specific requirements listed in § 257.90(e)(1) through § 257.90(e)(5) are provided below in bold/italic type followed by a short narrative addressing how that specific requirement has been met.

At a minimum, the annual groundwater monitoring and corrective action report must contain the following information, to the extent available:

§ 257.90(e)(1) A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the CCR unit.

AESI operates the Petersburg Generating Station, located approximately four miles north of Petersburg, Indiana. It is located at 6925 North State Road 57, Petersburg, Indiana. A Site Location Map is provided as **Figure 1**. A map showing the location of each CCR management unit, associated upgradient and downgradient CCR monitoring wells, N&E monitoring equipment, and temporary monitoring wells installed between 2019 and 2023 is provided as **Figure 2**.

§ 257.90(e)(2) Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken;

No monitoring wells were installed or abandoned during the 2024 reporting period.

The location of the CCR monitoring well network, enhancement wells, and N&E wells are depicted on **Figure 2**.

§ 257.90(e)(3) In addition to all the monitoring data obtained under § 257.90 through §257.98, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs;

Table 1 provides a summary of the number of samples collected at each CCR monitoring well and N&E monitoring well, sampling dates, and designation of whether samples were required by the detection or assessment monitoring program.

Groundwater elevation data is provided in **Table 2**.

Semi-annual assessment and N&E monitoring (AP-9I, AP-9A, AP-10B, AP-10I, AP-10A, AP-11B, AP-11I, AP-11A, MW-19I, MW-19A, MW-20I, MW-20A, MW-21B, MW-21I, MW-21A, MW-25B, MW-25I, MW-25A, MW-26B, MW-26I, MW-26A, MW-27B, MW-28B, MW-28I, MW-28A, MW-29B, MW-29I, MW-29A, MW-36B, MW-36I, MW-36A, MW-37B, MW-37I, MW-37A, MW-38B, MW-38I, MW-38A, MW-39B, MW-39I, MW-39A, MW-40B, MW-40I, MW-40A, MW-41B, MW-41I, MW-41A,

MW-42B, MW-42I, MW-42A, MW-43B, MW-43I, MW-43A, MW-44B, MW-44I, MW-44A, MW-45B, MW-45I, MW-45A, MW-46B, MW-46I, MW-46A, MW-47B, MW-47I, and MW-47A) groundwater analytical results for the November 2023 sampling event are summarized in **Table 3**; these results were not finalized by the end of 2023 for inclusion in the associated 2023 Annual Report. Monitoring wells AP-9B, MW-19B, and MW-20B were dry during the sampling event.

To verify elevated arsenic concentrations identified in Monitoring well AP-2A during the November 2023 sampling event, the well was resampled in January 2024. The results are summarized in **Table 4**.

N&E monitoring results for the February 2024 sampling event (AP-9B, AP-9I, AP-10B, AP-10I, AP-11B, and AP-11I) are summarized in **Table 5**.

Semi-annual assessment and N&E monitoring (AP-9B, AP-9I, AP-9A, AP-10B, AP-10I, AP-10A, AP-11B, AP-11I, AP-11A, MW-19B, MW-19I, MW-19A, MW-20B, MW-20I, MW-21B, MW-21I, MW-21A, MW-25B, MW-25I, MW-25A, MW-26B, MW-26I, MW-26A, MW-27B, MW-28B, MW-28I, MW-28A, MW-29B, MW-29I, MW-29A, MW-36B, MW-36I, MW-36A, MW-37B, MW-37I, MW-37A, MW-38B, MW-38I, MW-38A, MW-39B, MW-39I, MW-39A, MW-40B, MW-40I, MW-40A, MW-41B, MW-41I, MW-41A, MW-42B, MW-42I, MW-42A, MW-43B, MW-43I, MW-43A, MW-44B, MW-44I, MW-44A, MW-45B, MW-45I, MW-45A, MW-46B, MW-46I, MW-46A, MW-47B, MW-47I, and MW-47A) groundwater analytical results for the May 2024 sampling event are summarized in **Table 6**. Monitoring well MW-20A became inaccessible due to flooded access paths and tree damage from storms and was unable to be sampled during the event.

Monitoring results for the August 2024 verification re-sampling event associated with the RWS III Landfill compliance wells MW-2R and MW-3 (that also serve as background wells for the ash pond system) are summarized in **Table 7**.

Monitoring results for the August 2024 surface water sampling event on the White River are summarized in **Table 8**.

Monitoring results for the September 2024 verification re-sampling event associated with MW-2R is summarized in **Table 9**.

Groundwater results for both the October 2024 off-site investigation and November 2024 combined semi-annual assessment monitoring and N&E sampling event were not finalized in 2024 and therefore are not included with this submittal.

Potentiometric surface maps for the November 2023 sampling event are provided as **Figure 3** and **Figure 4**. Potentiometric surface maps for the May 2024 sampling event are provided as **Figure 5** and **Figure 6**. Potentiometric surface maps for the November 2024 sampling event are provided as **Figure 7** and **Figure 8**. Flow rate vectors are depicted on the maps. Gauging summary tables and flow velocity calculations for each event are provided as supporting documentation in **Appendix A**. Laboratory certificates of analysis are provided in **Appendix B.**

Statistical Evaluation Procedures

The statistical evaluation procedures created for the Petersburg Generating Station ash pond system define the statistical tests to be used for this site's CCR groundwater detection monitoring system. The aforementioned evaluation methods specify statistical tests for the detection monitoring program (Appendix III parameters) and assessment monitoring program (Appendix IV parameters) described in 40 CFR 257. These evaluation methods were created to comply with the requirements of § 257.93(f).

This plan is based on the use of the commercial software DUMPStat[5] (Version 3.0). The DUMPStat program uses statistical tests, procedures, and testing sequences described in Statistical Methods for Groundwater Monitoring[6] (Gibbons et. al., 2009). The statistical methods for the Petersburg Generating Station Ash Pond CCR monitoring system are designed to be consistent with ASTM International Standard Guide for Developing Appropriate Statistical Approaches for Groundwater Detection Monitoring Programs *at Waste Disposal Facilities* (D6312-17) along with federal and state guidance, and are also consistent with Indiana's regulations addressing statistical evaluation of groundwater at solid waste landfills.

The CCR ash pond groundwater monitoring system at the PGS consists of seventeen (17) monitoring wells: three (3) upgradient monitoring wells MW-2R, MW-3, and MW-4C and fourteen (14) downgradient monitoring wells; AP-1R, AP-2A, AP-2BO, AP-3, AP-3A, AP-4A, AP-4B, AP-4I, AP-5, AP-5A, AP-6A, AP-6B, AP-7, and AP-8. Original monitoring wells MW-1, MW-2, and MW-3 were installed in 1986. Monitoring well MW-2 was replaced by monitoring well MW-2R in 2017. Monitoring well MW-4C was installed in 1992. With the exception of AP-1R and AP-2BO, the AP- series wells were installed between 2014 and 2015. Wells AP-1R and AP-2BO were installed in 2016 as replacements to original wells AP-1 and AP-2B, respectively. The wells were installed in accordance with the requirements of Federal CCR Rule § 257.91.

Statistical levels defined in this evaluation plan depend, in part, on the values defined for certain settings in DUMPStat. The Plan is based on making interwell comparisons for each well and each parameter. The background database contains results from September 2016 through the respective November 2023 and May 2024 semi-annual events for the upgradient monitoring wells, and from September 2016 through the respective November 2023 and May 2024 semi-annual events for the downgradient wells. The minimum background sample size was set to eight (8). Under this plan, if a detection monitoring result in a compliance well exceeds a statistical limit, a statistically significant increase, or SSI, will be declared.

Semi-annual assessment monitoring sampling events were conducted in 2024 as required by § 257.95(b) and § 257.95(d)(1). Pursuant to 40 CFR 257.95(b), each Appendix IV constituent was sampled in 2024. Pursuant to 40 CFR 257.95(d)(1), semi-annual sampling of each Appendix III parameter and Appendix IV constituent detected in response to 40 CFR 257.95(b) was conducted in 2024. Each sampling event was performed consistent with 40 CFR 257.93(e). Subsequent SSL

[5] DUMPStat Version 3.0 was written by Robert D. Gibbons and is distributed and supported by Discerning Systems Inc.

[6] Gibbons, R.D., Bhaumik D. K., Aryal S., 2009, Statistical Methods for Groundwater Monitoring, Second Edition, John Wiley & Sons, Inc. New York, 374 pages.

evaluation of the November 2023 and May 2024 data were performed within 90 days of completing the sampling and analysis pursuant to § 257.93(h)(2).

1.1 Background Data

Pursuant to 257.94(b), the monitoring well network has been sampled to establish a minimum eight background data sets prior to completion of initial statistical analyses. Groundwater samples were analysed for the Appendix III parameters: boron (total), calcium (total), chloride, fluoride, pH, sulfate, and total dissolved solids (TDS); and for the Appendix IV parameters: antimony (total), arsenic (total), barium (total), beryllium (total), cadmium (total), chromium (total), cobalt (total), fluoride, lead (total), lithium (total), mercury (total), molybdenum (total), selenium (total), thallium (total), and total radium.

Available historical data were used to calculate the background for the system.

Included in this attachment are summaries of the historical data for the statistically evaluated parameters for the PGS ash ponds. Historical data from groundwater sampling events were imported into the DUMPStat database. **Table 1** in **Appendix C** contains groundwater quality data collected from the background monitoring wells MW-2R, MW-3, and MW-4C. Prediction limits based on groundwater quality reported from the background monitoring wells were calculated for each parameter and are presented in **Appendix C, Table 5**.

1.2 Defined Statistical Tests - Interwell Statistical Comparisons

While Appendix III detection monitoring continues during the completion of the Appendix IV assessment monitoring program, detection monitoring statistics were not completed in 2024, as the facility has entered into statistical evaluation of assessment monitoring parameters.

Appendix IV assessment monitoring parameters are statistically evaluated using the appropriate upgradient versus downgradient statistical test also known as an interwell statistical comparison. To assign the appropriate upgradient versus downgradient statistical test, DUMPStat first checks the parameter concentration to determine the detection frequencies (**Attachment C, Table C-3**). It then applies the Shapiro-Wilk Test of Normality for Multiple Groups to determine if the data for each parameter are normally or lognormally distributed, or if a nonparametric prediction limit must be used (**Appendix C, Table C-4**). The statistics are then calculated and the prediction limits established (**Appendix C, Table C-5**). DUMPStat screens the background data using Dixon's test to remove the outliers. The results of the Dixon's test are listed in **Appendix C, Table C-6**. The parameters that exceed statistical limits in the downgradient monitoring wells, along with the associated historical data for those parameters, are listed in **Appendix C, Table C-7**. A statistical power curve is also included.

Among the background measurements, if the constituent fits normal/lognormal distribution, the parametric prediction limit is calculated; if the constituent does not fit normal/lognormal distribution, the non-parametric prediction limit is calculated.

As will be explained in a subsequent section, calculated prediction limits are used in the development of GWPSs for each Appendix IV constituent.

1.3 False Positive Rates and Statistical Power

Included in this attachment is the power curve calculated by DUMPStat at the site for this interwell monitoring plan. As indicated in the US EPA Unified Guidance[7] document, as a general guide, when background is approximately normal in distribution, a statistical test should be able to detect a 3-standard deviation increase at least 55-60% of the time, and a 4-standard deviation increase with at least 80-85% probability. The calculated statistical power curve indicates general compliance with this guidance; the facility's statistical program has the annual power to detect 3- and 4-standard deviation increases above the true background mean. It is expected that the power curves will also improve as additional background data are added over time.

1.4 Interwell Statistics Comparisons

Future groundwater quality results at monitoring wells AP-1R, AP-2A, AP-2BO, AP-3, AP-3A, AP-4A, AP-4B, AP-4I, AP-5, AP-5A, AP-6A, AP-6B, AP-7, and AP-8 will be statistically compared to results from Monitoring Wells MW-2R, MW-3, and MW-4C.

1.5 Background Sample Size

The number of background samples for Appendix IV parameters is listed in the "N" column of **Appendix C, Table 5.** The minimum background sample size is eight.

1.6 Appendix IV Assessment Monitoring – Statistical Procedures to Determine GWPS Exceedances

In accordance with 257.95(a), as SSIs have previously been identified for one or more Appendix III constituents at one or more downgradient wells, an Appendix IV assessment monitoring program has been established. Prediction limits are calculated for each Appendix IV parameter. A groundwater protection standard (GWPS) for each Appendix IV parameter will also be established. The GWPS will be the larger of the background prediction limit, the regulatory standard (maximum contaminant level, MCL), or the USEPA Screening Level[8] for those Appendix IV constituents (cobalt, lithium, molybdenum) that do not have a defined MCL.

Appendix IV parameters are evaluated by calculating the lower confidence limit (LCL) on the mean of the last four reported concentrations for each Appendix IV parameter in each downgradient (compliance) well to the GWPS. This approach is discussed in technical literature (Gibbons and Coleman, 2001, Equation 19.5, p. 231)[9] and the US EPA Unified Guidance (2009). The 95% LCL of the mean of the last four measurements for each Appendix IV constituent will be calculated as follows:

[7] Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities Unified Guidance, March 2009, EPA 530-R-09-007.

[8] USEPA Amendments to the National Minimum Criteria (Phase One, Part One), Disposal of Coal Combustion Residuals from Electric Utilities; effective August 29, 2018 (page 36444).

[9] Gibbons, R.D., and Coleman, D.E., 2001. Statistical Methods for Detection and Quantification of Environmental Contamination, John Wiley & Sons, 384 pp.

$$LCL = \bar{x} - ts/\sqrt{m}$$

LCL = lower confidence limit for mean;

t = one-tailed 100(1-α) percentage point of Students *t*-distribution on m-1 degrees of freedom;

m = number of sample measurements;

$s/\sqrt{m}$ = standard error of the mean; and

$\bar{x}$ = sample mean of m measurements.

The procedure for evaluating LCLs to the GWPS to identify if an exceedance exists is as follows.

A. LCL EVALUATION OF FOUR MOST RECENT DATA RESULTS (TYPICALLY THE MOST RECENT TWO YEARS OF DATA)

Procedurally, the first step in the analysis compares the LCL to the GWPS based on the four most recent results. During this initial step, the associated mean of the four data points is also compared to the GWPS. LCL exceedances will be identified. See step B for additional description.

For non-detect data, LCL calculations utilize 1/2 the median non-detect (ND) reporting limit (RL) from the well's cumulative non-detect sample results. If RL levels changed over time, the current calculated LCL value may be larger than the most recent four ND results. In order to remove the effect of early, elevated non-detect reporting limits for cobalt and fluoride on the calculated prediction limit, these data points were removed from background prediction limit calculations beginning with the May 2024 dataset, allowing a lower, more robust prediction limit to be calculated.

B. MEAN VS. LCL QUANTITATIVE SCREENING EVALUATION

If a condition is identified where the *mean* exceeds the GWPS but the associated *LCL* does not, a concern is that, due either to the small sample size, an elevated standard deviation due to elevated sample result variability, the determination of no LCL GWPS exceedance may represent a "false negative" condition. For these isolated situations, an additional iteration of a larger dataset (typically N=8) is completed to determine if disagreement between the mean and LCL relative to the GWPS continues to exist. Prior to conducting the test, trend analysis was performed to verify stationarity of the LCL data period. The longest data range of the most recent 5 to 8 samples that was technically appropriate to evaluate (no statistically significant trends) was utilized. If this condition could not be met, the LCL was not evaluated further.

Both the mean and LCL in this iteration are calculated based on the 8 most recent results (or alternate N=_ population). During the additional iteration, if both the mean and calculated LCL are determined to be above the GWPS, a preliminary exceedance may be considered valid. Conversely, if they are both below the GWPS, an exceedance is not declared. If a conflict is still present, the data would be evaluated in Step C.

C. QUALITATIVE VISUAL SCREENING EVALUATION

To better ensure that Steps A and B do not overlook a potential exceedance that exists if an even larger dataset were considered, Atlas will visually evaluate the confidence limit graphs and time series plots for these potential situations. If a dataset that meets stationarity is identified, an appropriate expanded dataset for that constituent/well pair will be evaluated for an LCL exceedance. Conflicts that aren't resolved in Step B are also carried over to Step C evaluation.

Appendix III detection monitoring will continue during the completion of the Appendix IV assessment monitoring program.

§ 257.90(e)(4) A narrative discussion of any transition between monitoring programs (e.g., the date and circumstances for transitioning from detection monitoring to assessment monitoring in addition to identifying the constituent(s) detected at a statistically significant increase over background levels);

AESI Petersburg operated under the assessment monitoring program in accordance with §257.95 during 2024. No transition between monitoring programs was conducted in 2024.

During 2024, statistical evaluations of the November 2023 and May 2024 analytical data were performed in order to determine whether there was a SSL of a new Appendix IV The evaluations were completed in April 2024 and September 2024, respectively. Based on the evaluations, it was determined that the Appendix IV constituents that exceeded the GWPS include cadmium, cobalt, and molybdenum; however, these are the same constituent SSLs previously identified. Since there were no new Appendix IV constituents identified, an additional notification was not triggered pursuant to 40 CFR 257.95(g). SSLs and associated wells are summarized on Page 2.
§ 257.90(e)(5) Other information required to be included in the annual report as specified in § 257.90 through § 257.98.

Table 10A and **Table 10B** summarize the groundwater protection standards established in accordance with § 257.95(d)(2) and § 257.95(h) associated with the November 2023 and May 2024 semi-annual assessment monitoring events, respectively.

Projected key activities for the upcoming year include the following:

- Assessment monitoring sampling events in accordance with § 257.95 and consistent with § 257.90(e).
- Finalize November 2024 analytical data and complete statistical evaluation of November 2024 analytical data to determine whether there is an SSL above GWPS for Appendix IV constituents in accordance with § 257.95(g) and 257.93(h). Perform SSL evaluations of final May 2025 assessment monitoring analytical data.
- Incorporate supplemental groundwater data into the groundwater flow and solute transport model and provide additional data to support the groundwater conceptual site model (CSM).

- Finalize off-site investigation data and prepare an off-site N&E investigation report summarizing the October 2024 investigation activities.

- Prepare an N&E Report which will provide a comprehensive summary of data evaluation and the groundwater CSM.

- Begin preparing estimated quantity of Appendix IV material released.

- Continue to perform an engineering review of the potential CMA remedial alternatives. For these reviews, emphasis will be placed on integrating recent analytical results, identifying and evaluating applicability of emerging technologies and their potential applicability to the CMA and selection of remedy process.

- Begin to develop an updated Corrective Measure Assessment to account for the supplemental information collected since 2019 which is sourced from additional monitoring data, groundwater N&E investigations, CSM development, geochemical and site-specific investigations, groundwater modeling updates, and potential corrective measures evaluations.

- Potentially conduct a public meeting to discuss the results of the corrective measures assessment at least 30 days prior to the selection of remedy pursuant to § 257.96(e).

- Prepare semi-annual report(s) describing progress in selecting and designing the remedy pursuant to § 257.97(a).

We appreciate the opportunity to assist with AESI's CCR Rule groundwater monitoring program at Petersburg Station's Ash Pond System. Please contact either of the undersigned at 317.849.4990 if you have any questions regarding this report.

Respectfully submitted,
Atlas Technical Consultants LLC

Mark E. Breting

Mark E. Breting, L.P.G.
Senior Project Geologist

Robert T. Duncan

Robert T. Duncan, L.P.G.
Principal Geologist

Copies: Ms. Pilar Cuadra, AES US Services, LLC
Mr. Nicholas Williams, AES US Services, LLC

Figures

Figure 1: Site Location Map
Figure 2: Groundwater Monitoring System – CCR Network Wells and N&E Wells
Figure 3: Potentiometric Surface Map – Shallow Zone - November 1, 2023
Figure 4: Potentiometric Surface Map – Deep Zone - November 1, 2023
Figure 5: Potentiometric Surface Map – Shallow Zone – April 30, 2024
Figure 6: Potentiometric Surface Map – Deep Zone - April 30, 2024
Figure 7: Potentiometric Surface Map – Shallow Zone – November 1, 2024
Figure 8: Potentiometric Surface Map – Deep Zone – November 1, 2024

C:\USERS\MILES.SHARPLESS\ONEATLAS\DIGITAL SERVICES - FILE SERVER\2023\1 OTHER OFFICES\INDIANA\AES\PETERSBURG\170LF01113\170AES0003-SITE LOCATION.DWG, FIG1

LEGEND:

- AES INDIANA PROPERTY BOUNDARY
- APPROXIMATE LIMITS OF REGULATED CCR SURFACE IMPOUNDMENT
- APPROXIMATE LIMITS OF NON - REGULATED CCR SURFACE IMPOUNDMENT
- RESTRICTED WASTE SITE (RWS) TYPE III LANDFILL BOUNDARY

NOTE: ALL LOCATIONS ARE APPROXIMATE
7.5 MINUTE (1:24,000) USGS QUADRANGLE MAPS
1980 SANDY HOOK, IN
1980 MONROE CITY, IN

ASH POND C
ASH POND C
ASH POND A
ASH POND A
ASH POND D
RWS TYPE III AREA
PETERSBURG GENERATING STATION
EAST FORK OF WHITE RIVER
DAVIESS COUNTY
KNOX COUNTY
White River
Pond Creek
Jackson Pond
Jackson Pond
Lick Creek
Lick Creek
Mud Creek
Mud Creek
East Fork White River
Rogers
Arda
Alford
W 575 S
SOUTHFORK RD
CO RD 300 W
S STATE RD 57
CO RD 250
CO RD 700 S
CO RD 1200 S
HOUCHIN RD
POND CREEK RD
CO RD 1000 E
CO RD 1250 S
SNOWBALL RD
CO RD 300 W
E CO RD 725 N
N CO RD 350 E
E CARDONBALE
E CO RD 650 N
650 N
N CO RD 200 E
E CO RD 600 N
E DOANE LN
N CO RD 275 E
E LAKE MINNIS DR
E CO RD 550 N
N STATE HWY 57
MAIN ST
E MAIN ST
N RODOLPH LN
S HILL DR
S LAKEVIEW DR
S 127TH ST
69
57

Figure: 1	Scale: 1" = 2,000'	Drn. By: MS / Ckd. By: MB	Date: 01/20/2025
Project Number: 170AES0003			

SITE LOCATION MAP

AES INDIANA PETERSBURG GENERATING STATION
ASH POND SYSTEM
PETERSBURG, INDIANA

ATLAS

LEGEND:

- AP-1 — CCR MONITORING WELL (Well Identification)
- MW-1 — EXISTING NATURE AND EXTENT MONITORING WELL (Well Identification)
- PZ-2A — EXISTING NATURE AND EXTENT PIEZOMETER (Well Identification)
- SC-2 — SURFACE WATER SAMPLE (Sample Identification)
- AES INDIANA PROPERTY BOUNDARY
- APPROXIMATE LIMITS OF CCR SURFACE IMPOUNDMENT

SC-2 SB-2
MW-47A MW-47I MW-47B
MW-46A MW-46I MW-46B
MW-45A MW-45I MW-45B
SC-1 SB-1
AP-11A AP-11I AP-11B
MW-36A MW-36I MW-36B
MW-25A MW-25I MW-25B
MW-37A MW-37I MW-37B
AP-6A AP-6B
AP-7
MW-38B MW-38I MW-38B
AP-5 AP-5A
ASH POND C
MW-39A MW-39I MW-39B
MW-29A MW-29I MW-29B
AP-8
AP-4A AP-4I AP-4B
MW-40A MW-40I MW-40B
ASH POND B
MW-41A MW-41I MW-41B
MW-20B MW-20I MW-20A
MW-19A MW-19I MW-19B
AP-10A AP-10I AP-10B
AP-3 AP-3A
PZ-2B PZ-2I PZ-2A
PZ-1B PZ-1I PZ-1A
ASH POND A'
MW-28A MW-28I MW-28B
MW-26A MW-26I MW-26B
AP-2B0
MW-4C
SB-3 SC-3
MW-42A MW-42I MW-42B
AP-9A AP-9I AP-9B
AP-2A
ASH POND A
MW-21A MW-21I MW-21B
MW-3
MW-43A MW-43I MW-43B
AP-1R
MW-44A MW-44I MW-44B
ASH POND D
MW-27B
MW-2R

N

0 500 1,000

SCALE: 1" = 1,000'

GROUNDWATER MONITORING SYSTEM
CCR NETWORK WELLS AND N AND E WELLS

AES INDIANA PETERSBURG GENERATING STATION
ASH POND SYSTEM
PETERSBURG, INDIANA

Project Number:	170AES0003
Date:	01/20/2025
Drn. By:	MS
Ckd. By:	MB
Scale:	AS SHOWN
Figure:	2

C:\USERS\MILES.SHARPLESS\ONEATLAS\DIGITAL SERVICES - FILE SERVER\2023\1 OTHER OFFICES\INDIANA\AES\PETERSBURG\170LF01113\170AES0003-AP WELLS.DWG, FIG2

C:\USERS\MILES.SHARPLESS\ONEATLAS\DIGITAL SERVICES - FILE SERVER\2024\CAD DEPARTMENT\AES INDIANA\PETERSBURG\170LF01504\170LF01504-POT SHALLOW.DWG, FIG2

LEGEND:

- AP-1 — CCR MONITORING WELL (Well Identification)
- MW-1 — EXISTING NATURE AND EXTENT MONITORING WELL (Well Identification)
- AP-11A — EXISTING NATURE AND EXTENT PIEZOMETER (Well Identification)
- AES INDIANA PROPERTY BOUNDARY
- APPROXIMATE LIMITS OF CCR SURFACE IMPOUNDMENT
- 403 — GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED) (ft)
- GROUNDWATER FLOW DIRECTION

CONTOUR INTERVALS = 1.0ft.
FR = FLOW RATE (FT/DAY)

MW-46B 403.26 MW-46I MW-46A
MW-47B 403.15 MW-47I MW-47A
MW-45B 403.49 MW-45I MW-45A
MW-36B 403.09 MW-36I MW-36A
MW-25B 403.02 MW-25I MW-25A
AP-11B 403.61 AP-11I AP-11A
AP-6A AP-6B DRY TO PUMP
MW-37B 402.82 MW-37I MW-37A
AP-7 420.48
AP-5A AP-5 402.78
MW-38B 402.99 MW-38I MW-38A
FR1: 3.4
ASH POND C
MW-39B 402.49 MW-39I MW-39A
MW-29B 403.19 MW-29I MW-29A
403.0
ASH POND B
AP-8 435.26
MW-40B 403.00 MW-40I MW-40A
MW-41B 402.61 MW-41I MW-41A
AP-4B DRY TO PUMP AP-4I AP-4A
MW-20B DRY MW-201 MW-20A
MW-19B DRY MW-19I MW-19A
AP3A AP-3 DRY
ASH POND A'
AP-10B 403.25 AP-10I AP-10A
PZ-2B 402.54 PZ-2I PZ-2A
PZ-1B 403.42 PZ-1I PZ-1A
MW-28B 402.75 MW-28I MW-28A
AP-9B 403.00 AP-9I AP-9A
MW-26B 402.45 MW-26I MW-26A
AP-2B0 403.07
AP-2A
ASH POND A
MW-4C 448.06
MW-42B 402.45 MW-42I MW-42A
MW-43B 402.33 MW-43I MW-43A
MW-21B 402.87 MW-21I MW-21A
FR2: 2.0
MW-3 440.13
AP-1R 404.18
MW-44B 402.38 MW-44I MW-44A
ASH POND D
MW-27B 402.22
MW-2R 435.60

410 420 430 440

N

0 200 400 600
SCALE: 1" = 600'

Figure: 3

Scale: AS SHOWN
Drn. By: BM
Ckd. By: MB
Date: 02/23/2024
Project Number: 170LF01504

GROUNDWATER ELEVATION POTENTIOMETRIC SURFACE MAP (SHALLOW ZONE)
NOVEMBER 1, 2023
AES INDIANA PETERSBURG GENERATING STATION
ASH POND SYSTEM
PETERSBURG, INDIANA

ATLAS

C:\USERS\MILES.SHARPLESS\ONEATLAS\DIGITAL SERVICES - FILE SERVER\2024\CAD DEPARTMENT\AES INDIANA\PETERSBURG\170LF01504\170LF01504-POT DEEP.DWG, FIG3

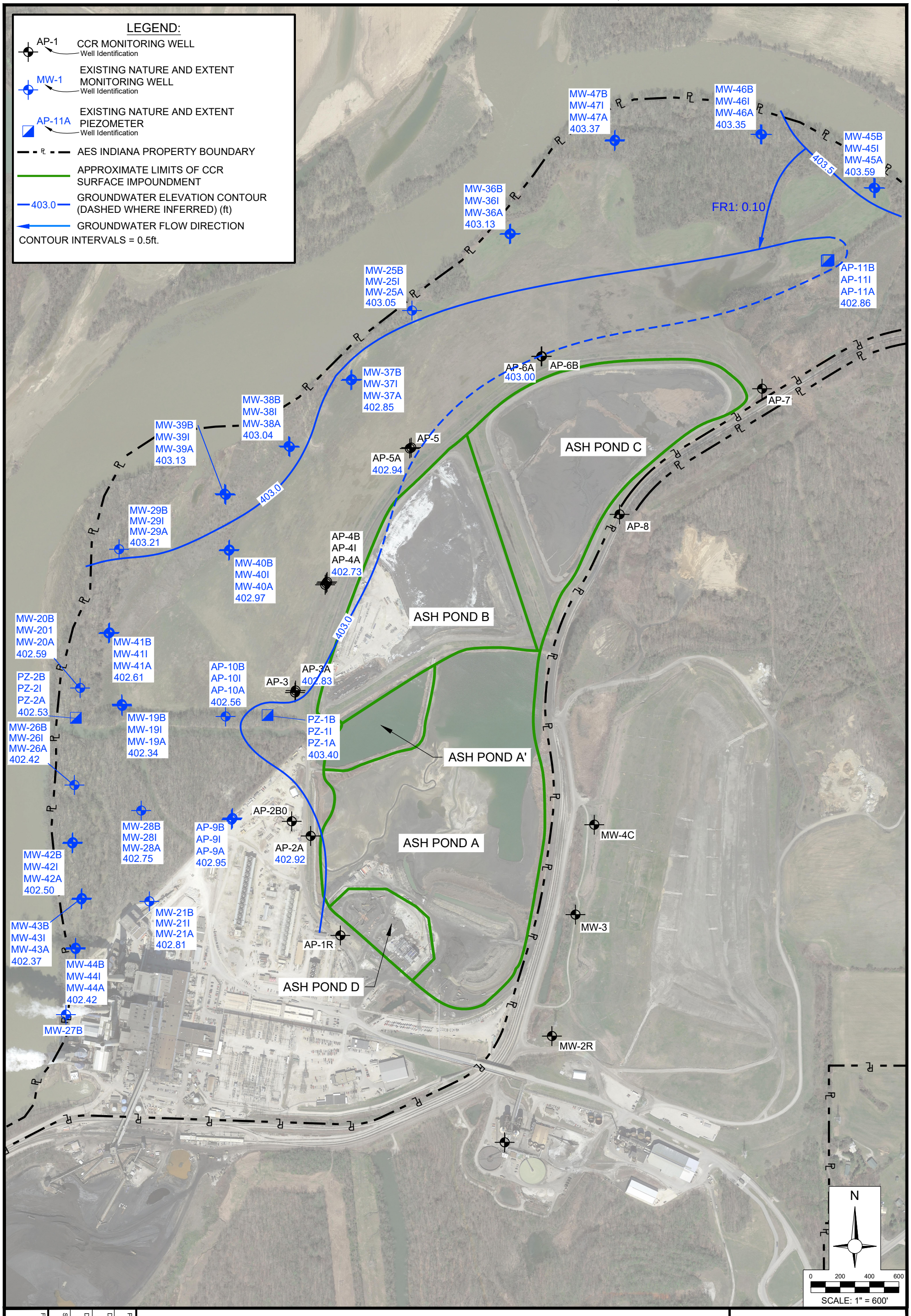


Figure: 4

Scale: AS SHOWN

Drn. By: MS

Ckd. By: MB

Date: 02/23/2024

Project Number: 170LF01504

GROUNDWATER ELEVATION POTENTIOMETRIC SURFACE MAP (DEEP ZONE)
NOVEMBER 1, 2023

AES INDIANA PETERSBURG GENERATING STATION
ASH POND SYSTEM
PETERSBURG, INDIANA

ATLAS

C:\USERS\JACK.GOSE\ONEATLAS\DIGITAL SERVICES - FILE SERVER\2024\CAD DEPARTMENT\AES INDIANA\PETERSBURG\170LF01504\170LF01504-POT SHALLOW 4.24.DWG, FIG2

LEGEND:

- AP-1 — CCR MONITORING WELL (Well Identification)
- MW-1 — EXISTING NATURE AND EXTENT MONITORING WELL (Well Identification)
- AP-11A — EXISTING NATURE AND EXTENT PIEZOMETER (Well Identification)
- AES INDIANA PROPERTY BOUNDARY
- APPROXIMATE LIMITS OF CCR SURFACE IMPOUNDMENT
- 403 — GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED) (ft)
- GROUNDWATER FLOW DIRECTION

CONTOUR INTERVALS = 1.0ft.
FR = FLOW RATE (FT/DAY)

MW-46B 411.21 MW-46I MW-46A
MW-47B 411.22 MW-47I MW-47A
MW-45B 411.58 MW-45I MW-45A
MW-36B 411.07 MW-36I MW-36A
MW-25B 410.64 MW-25I MW-25A
AP-11B 412.83 AP-11I AP-11A
AP-6A AP-6B 412.10
MW-37B 410.59 MW-37I MW-37A
411.0
412.0
FR1: 2.2
AP-7 424.56
AP-5A AP-5 411.36
MW-38B 411.03 MW-38I MW-38A
ASH POND C
MW-39B 410.86 MW-39I MW-39A
ASH POND B
AP-8 437.97
420.0
430.0
440.0
MW-29B 411.47 MW-29I MW-29A
MW-40B 411.99 MW-40I MW-40A
MW-41B 411.09 MW-41I MW-41A
AP-4B 411.66 AP-4I AP-4A
MW-20B 410.50 MW-20I MW-20A
MW-19B 410.56 MW-19I MW-19A
AP-10B 411.42 AP-10I AP-10A
AP3A AP-3 412.20
ASH POND A'
PZ-2B 410.29 PZ-2I PZ-2A
PZ-1B 411.61 PZ-1I PZ-1A
MW-26B 410.01 MW-26I MW-26A
MW-28B 410.43 MW-28I MW-28A
AP-2B0 411.11
AP-9B 410.98 AP-9I AP-9A
AP-2A
ASH POND A
MW-4C 448.46
FR2: 1.4
MW-42B 410.03 MW-42I MW-42A
MW-43B 409.96 MW-43I MW-43A
MW-21B 410.77 MW-21I MW-21A
AP-1R 412.33
MW-3 440.48
MW-44B 409.91 MW-44I MW-44A
ASH POND D
MW-27B 409.68
MW-2R 440.12

N

0 200 400 600

SCALE: 1" = 600'

Figure:	5
Scale:	AS SHOWN
Drn. By:	BM
Ckd. By:	MB
Date:	09/03/2024
Project Number:	170LF01504

GROUNDWATER ELEVATION POTENTIOMETRIC SURFACE MAP (SHALLOW ZONE)
APRIL 30, 2024

AES INDIANA PETERSBURG GENERATING STATION
ASH POND SYSTEM
PETERSBURG, INDIANA

ATLAS

C:\USERS\JACK.GOSE\ONEATLAS\DIGITAL SERVICES - FILE SERVER\2024\CAD DEPARTMENT\AES INDIANA\PETERSBURG\170LF01504\170LF01504-POT DEEP 4.24.DWG, FIG3

LEGEND:

- AP-1 — CCR MONITORING WELL (Well Identification)
- MW-1 — EXISTING NATURE AND EXTENT MONITORING WELL (Well Identification)
- AP-11A — EXISTING NATURE AND EXTENT PIEZOMETER (Well Identification)
- AES INDIANA PROPERTY BOUNDARY
- APPROXIMATE LIMITS OF CCR SURFACE IMPOUNDMENT
- 403.0 — GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED) (ft)
- GROUNDWATER FLOW DIRECTION

CONTOUR INTERVALS = 1ft.
FR = FLOW RATE (FT/DAY)

MW-47B
MW-47I
MW-47A
411.34

MW-46B
MW-46I
MW-46A
411.27

MW-45B
MW-45I
MW-45A
411.67

MW-36B
MW-36I
MW-36A
411.13

MW-25B
MW-25I
MW-25A
410.75

MW-37B
MW-37I
MW-37A
410.61

AP-11B
AP-11I
AP-11A
412.06

412.0

AP-6B

AP-6A
411.99

FR1: 0.18

411.0

AP-7

MW-38B
MW-38I
MW-38A
411.04

MW-39B
MW-39I
MW-39A
411.63

AP-5

AP-5A
411.46

ASH POND C

MW-29B
MW-29I
MW-29A
411.46

AP-8

AP-4B
AP-4I
AP-4A
411.62

MW-40B
MW-40I
MW-40A
411.95

ASH POND B

MW-20B
MW-20I
MW-20A
410.50

MW-41B
MW-41I
MW-41A
410.92

411.0

AP-3A
411.33

AP-3

PZ-2B
PZ-2I
PZ-2A
410.26

MW-19B
MW-19I
MW-19A
410.34

AP-10B
AP-10I
AP-10A
410.63

PZ-1B
PZ-1I
PZ-1A
411.70

MW-26B
MW-26I
MW-26A
409.96

ASH POND A'

AP-2B0

MW-28B
MW-28I
MW-28A
410.41

AP-9B
AP-9I
AP-9A
410.92

AP-2A
410.90

MW-4C

ASH POND A

MW-42B
MW-42I
MW-42A
410.06

410.0

FR2: 0.15

MW-21B
MW-21I
MW-21A
410.67

MW-43B
MW-43I
MW-43A
409.98

MW-3

AP-1R

MW-44B
MW-44I
MW-44A
409.95

ASH POND D

MW-27B

MW-2R

N

0 200 400 600

SCALE: 1" = 600'

Figure: 6

Scale: AS SHOWN

Drn. By: MS

Ckd. By: MB

Date: 08/28/2024

Project Number: 170LF01504

GROUNDWATER ELEVATION POTENTIOMETRIC SURFACE MAP (DEEP ZONE)
APRIL 30, 2024

AES INDIANA PETERSBURG GENERATING STATION
ASH POND SYSTEM
PETERSBURG, INDIANA

ATLAS

C:\USERS\MILES.SHARPLESS\ONEATLAS\DIGITAL SERVICES - FILE SERVER\2024\CAD DEPARTMENT\AES INDIANA\PETERSBURG\170LF01504\170AES0003-POT SHALLOW 11.24.DWG, FIG2

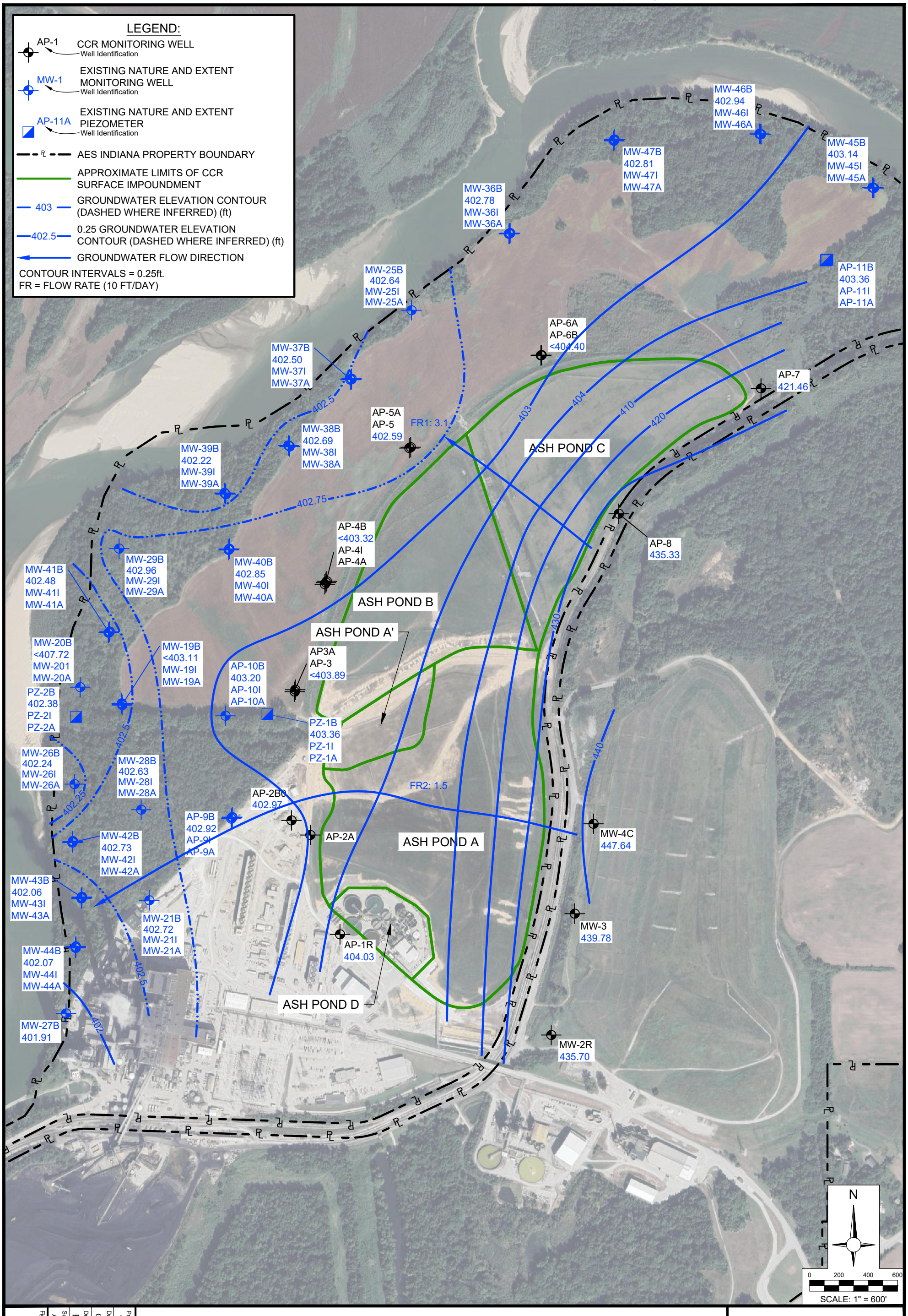


Figure: 7	Scale: AS SHOWN	Drn. By: BM / Ckd. By: MB	Date: 01/21/2025	Project Number: 170LF01504

GROUNDWATER ELEVATION POTENTIOMETRIC SURFACE MAP (SHALLOW ZONE) NOVEMBER 1, 2024

AES INDIANA PETERSBURG GENERATING STATION
ASH POND SYSTEM
PETERSBURG, INDIANA

ATLAS

C:\USERS\MILES.SHARPLESS\ONEATLAS\DIGITAL SERVICES - FILE SERVER\2024\CAD DEPARTMENT\AES INDIANA\PETERSBURG\170LF01504\170AES0003-POT DEEP 11.24.DWG, FIG3

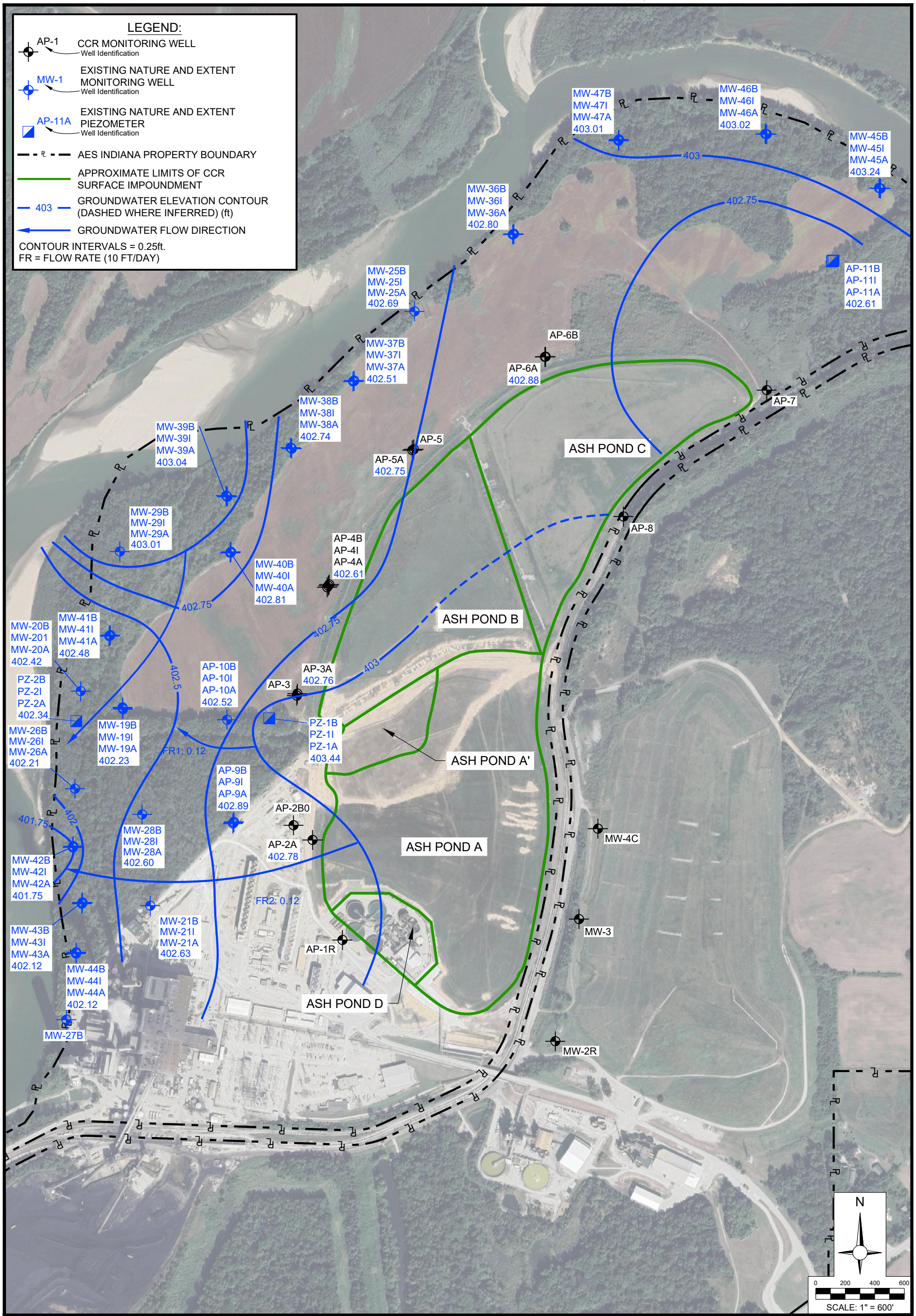


Figure: 8

Project Number: 170LF01504

Date: 01/22/2025

Drn. By: MS

Ckd. By: MB

Scale: AS SHOWN

GROUNDWATER ELEVATION POTENTIOMETRIC SURFACE MAP (DEEP ZONE)
NOVEMBER 1, 2024

AES INDIANA PETERSBURG GENERATING STATION
ASH POND SYSTEM
PETERSBURG, INDIANA

ATLAS

Tables

Table 1:	Well Sampling Summary
Table 2:	Groundwater Elevation Data
Table 3:	Summary of Monitoring Results – November 2023
Table 4:	Summary of Monitoring Results – January 2024
Table 5:	Summary of Monitoring Results – February 2024
Table 6:	Summary of Monitoring Results – May 2024
Table 7:	Summary of Monitoring Results – August 2024
Table 8:	Surface Water Sampling Results – August 2024
Table 9:	Summary of Monitoring Results – September 2024
Table 10A:	Groundwater Protection Standards Summary – November 2023
Table 10B:	Groundwater Protection Standards Summary – May-June 2024

Table 1
Well Sampling Summary
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Identification	Date Installed	Upgradient/Background, Downgradient, or Nature & Extent	Number of Samples	Sample Date	Detection or Assessment Monitoring Program
MW-2R	MW-2 - 1986 MW-2R - 2/1/2017	Downgradient	4	5/2/2024 8/13/2024 9/17/2024 11/7/2024	Assessment
MW-3	1986	Downgradient	3	5/12/2024 8/13/2024 11/11/2024	Assessment
MW-4C	9/29/1992	Downgradient	2	5/12/2024 11/10/2024	Assessment
AP-1R	4/5/2016	Downgradient	2	5/5/2024 11/6/2024	Assessment
AP-2BO	4/5/2016	Downgradient	2	5/7/2024 11/6/2024	Assessment
AP-2A	6/11/2014	Downgradient	3	1/25/2024 5/7/2024 11/6/2024	Assessment
AP-3	6/9/2014	Downgradient	2	5/5/2024 11/4/2024	Assessment
AP-3A	5/13/2015	Downgradient	2	5/6/2024 11/4/2024	Assessment
AP-4B	6/17/2014	Downgradient	2	5/8/2024 11/5/2024	Assessment
AP-4I	6/16/2014	Downgradient	2	5/6/2024 11/5/2024	Assessment
AP-4A	6/16/2014	Downgradient	2	5/6/2024 11/5/2024	Assessment
AP-5	6/17/2014	Downgradient	2	5/8/2024 11/5/2024	Assessment
AP-5A	5/12/2015	Downgradient	2	5/8/2024 11/5/2024	Assessment
AP-6B	6/18/2014	Downgradient	2	5/12/2024 11/7/2024	Assessment
AP-6A	6/17/2014	Downgradient	2	5/8/2024 11/7/2024	Assessment
AP-7	6/10/2014	Downgradient	2	5/9/2024 11/6/2024	Assessment
AP-8	6/10/2014	Downgradient	2	5/9/2024 11/6/2024	Assessment
AP-9B	10/24/2022	Nature & Extent	3	2/15/2024 5/7/2024 11/6/2024	Assessment
AP-9I	10/24/2022	Nature & Extent	3	2/15/2024 5/7/2024 11/6/2024	Assessment
AP-9A	5/30/2019	Nature & Extent	2	5/8/2024 11/6/2024	Assessment
AP-10B	9/7/2022	Nature & Extent	3	2/13/2024 5/10/2024 11/12/2024	Assessment
AP-10I	9/7/2022	Nature & Extent	3	2/13/2024 5/9/2024 11/12/2024	Assessment
AP-10A	8/2/2019	Nature & Extent	2	5/9/2024 11/12/2024	Assessment

Table 1
Well Sampling Summary
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Identification	Date Installed	Upgradient/Background, Downgradient, or Nature & Extent	Number of Samples	Sample Date	Detection or Assessment Monitoring Program
AP-11B	9/9/2022	Nature & Extent	3	2/14/2024 5/20/2024 11/4/2024	Assessment
AP-11I	9/9/2022	Nature & Extent	3	2/14/2024 5/13/2024 11/4/2024	Assessment
AP-11A	7/30/2019	Nature & Extent	2	5/13/2024 11/5/2024	Assessment
MW-19B	8/1/2019	Nature & Extent	2	5/8/2024 11/13/2024	Assessment
MW-19I	8/1/2019	Nature & Extent	2	5/8/2024 11/13/2024	Assessment
MW-19A	8/1/2019	Nature & Extent	2	5/8/2024 11/13/2024	Assessment
MW-20B	4/21/2020	Nature & Extent	1	5/24/2024	Assessment
MW-20I	4/21/2020	Nature & Extent	2	5/24/2024 11/11/2024	Assessment
MW-20A	4/22/2020	Nature & Extent	1	11/11/2024	Assessment
MW-21B	4/21/2020	Nature & Extent	2	5/9/2024 11/14/2024	Assessment
MW-21I	4/21/2020	Nature & Extent	2	5/9/2024 11/14/2024	Assessment
MW-21A	4/22/2020	Nature & Extent	2	5/9/2024 11/14/2024	Assessment
MW-25B	8/24/2021	Nature & Extent	2	5/20/2024 11/13/2024	Assessment
MW-25I	8/24/2021	Nature & Extent	2	5/21/2024 11/12/2024	Assessment
MW-25A	8/23/2021	Nature & Extent	2	5/20/2024 11/13/2024	Assessment
MW-26B	8/26/2021	Nature & Extent	2	6/11/2024 11/19/2024	Assessment
MW-26I	8/26/2021	Nature & Extent	2	6/10/2024 11/19/2024	Assessment
MW-26A	8/26/2021	Nature & Extent	2	6/10/2024 11/18/2024	Assessment
MW-27B	8/31/2021	Nature & Extent	2	6/11/2024 11/20/2024	Assessment
MW-28B	8/25/2021	Nature & Extent	2	6/11/2024 11/18/2024	Assessment
MW-28I	8/25/2021	Nature & Extent	2	6/12/2024 11/18/2024	Assessment
MW-28A	8/25/2021	Nature & Extent	2	6/11/2024 11/19/2024	Assessment
MW-29B	8/20/2021	Nature & Extent	2	5/10/2024 11/12/2024	Assessment
MW-29I	8/19/2021	Nature & Extent	2	5/10/2024 11/13/2024	Assessment
MW-29A	8/19/2021	Nature & Extent	2	5/10/2024 11/13/2024	Assessment
MW-36B	8/19/2022	Nature & Extent	2	5/23/2024 11/11/2024	Assessment
MW-36I	8/19/2022	Nature & Extent	2	5/23/2024 11/12/2024	Assessment

Table 1
Well Sampling Summary
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Identification	Date Installed	Upgradient/Background, Downgradient, or Nature & Extent	Number of Samples	Sample Date	Detection or Assessment Monitoring Program
MW-36A	8/18/2022	Nature & Extent	2	5/23/2024 11/12/2024	Assessment
MW-37B	8/22/2022	Nature & Extent	2	5/13/2024 11/12/2024	Assessment
MW-37I	8/22/2022	Nature & Extent	2	5/13/2024 11/12/2024	Assessment
MW-37A	8/22/2022	Nature & Extent	2	5/13/2024 11/12/2024	Assessment
MW-38B	10/19/2022	Nature & Extent	2	5/15/2024 11/13/2024	Assessment
MW-38I	10/19/2022	Nature & Extent	2	5/15/2024 11/13/2024	Assessment
MW-38A	10/18/2022	Nature & Extent	2	5/15/2024 11/12/2024	Assessment
MW-39B	10/20/2022	Nature & Extent	2	5/15/2024 11/13/2024	Assessment
MW-39I	10/20/2022	Nature & Extent	2	5/15/2024 11/13/2024	Assessment
MW-39A	10/19/2022	Nature & Extent	2	5/15/2024 11/13/2024	Assessment
MW-40B	8/24/2022	Nature & Extent	2	5/14/2024 11/14/2024	Assessment
MW-40I	8/23/2022	Nature & Extent	2	5/13/2024 11/14/2024	Assessment
MW-40A	8/23/2022	Nature & Extent	2	5/14/2024 11/14/2024	Assessment
MW-41B	10/20/2022	Nature & Extent	2	5/2/2024 11/11/2024	Assessment
MW-41I	10/20/2022	Nature & Extent	2	5/2/2024 11/11/2024	Assessment
MW-41A	10/19/2022	Nature & Extent	2	5/2/2024 11/11/2024	Assessment
MW-42A	8/31/2022	Nature & Extent	2	6/7/2024 11/19/2024	Assessment
MW-42B	8/31/2022	Nature & Extent	2	6/7/2024 11/18/2024	Assessment
MW-42I	8/31/2022	Nature & Extent	2	6/7/2024 11/19/2024	Assessment
MW-43B	8/30/2022	Nature & Extent	2	6/6/2024 11/20/2024	Assessment
MW-43I	8/30/2022	Nature & Extent	2	6/6/2024 11/19/2024	Assessment
MW-43A	8/30/2022	Nature & Extent	2	6/6/2024 11/20/2024	Assessment
MW-44B	8/25/2022	Nature & Extent	2	6/5/2024 11/19/2024	Assessment
MW-44I	8/25/2022	Nature & Extent	2	6/5/2024 11/20/2024	Assessment
MW-44A	8/25/2022	Nature & Extent	2	6/5/2024 11/20/2024	Assessment
MW-45B	9/14/2022	Nature & Extent	2	5/21/2024 11/5/2024	Assessment
MW-45I	9/14/2022	Nature & Extent	2	5/21/2024 11/5/2024	Assessment

Table 1
Well Sampling Summary
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Identification	Date Installed	Upgradient/Background, Downgradient, or Nature & Extent	Number of Samples	Sample Date	Detection or Assessment Monitoring Program
MW-45A	9/13/2022	Nature & Extent	2	5/20/2024 11/5/2024	Assessment
MW-46B	10/6/2022	Nature & Extent	2	5/21/2024 11/11/2024	Assessment
MW-46I	10/6/2022	Nature & Extent	2	5/22/2024 11/8/2024	Assessment
MW-46A	10/5/2022	Nature & Extent	2	5/22/2024 11/8/2024	Assessment
MW-47B	10/17/2022	Nature & Extent	2	5/22/2024 11/8/2024	Assessment
MW-47I	10/17/2022	Nature & Extent	2	5/22/2024 11/8/2024	Assessment
MW-47A	10/14/2022	Nature & Extent	2	5/22/2024 11/11/2024	Assessment

Notes
MW-20A was inaccessible in May 2024.
MW-20B was dry in November 2024.

Table 2
Groundwater Elevation Data
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Monitoring Well/Piezometer Location	Gauging Date	TOC Elevation (ft-MSL)	Depth to Water (ft)	Water Elevation (ft-MSL)
AP-1R	4/30/2024	443.08	30.75	412.33
	11/1/2024		39.05	404.03
AP-2BO	4/30/2024	436.86	25.75	411.11
	11/1/2024		33.89	402.97
AP-2A	1/25/2024	437.87	32.98	404.89
	4/30/2024		26.97	410.90
	11/1/2024		35.09	402.78
AP-3	4/30/2024	421.59	9.39	412.20
	11/1/2024		dry to pump (17.70)	<403.89
AP-3A	4/30/2024	421.56	10.23	411.33
	11/1/2024		18.80	402.76
AP-4B	4/30/2024	421.72	10.06	411.66
	11/1/2024		dry to pump (18.40)	<403.32
AP-4I	4/30/2024	421.82	10.15	411.67
	11/1/2024		19.15	402.67
AP-4A	4/30/2024	421.69	10.07	411.62
	11/1/2024		19.08	402.61
AP-5	4/30/2024	422.01	10.65	411.36
	11/1/2024		19.42	402.59
AP-5A	4/30/2024	422.52	11.06	411.46
	11/1/2024		19.77	402.75
AP-6B	4/30/2024	424.40	12.30	412.10
	11/1/2024		dry to pump (20.0)	<404.40
AP-6A	4/30/2024	424.33	12.34	411.99
	11/1/2024		21.45	402.88
AP-7	4/30/2024	434.62	10.06	424.56
	11/1/2024		13.16	421.46
AP-8	4/30/2024	444.2	6.23	437.97
	11/1/2024		8.87	435.33
AP-9B	2/15/2024	437.24	28.89	408.35
	4/30/2024		26.26	410.98
	11/1/2024		34.32	402.92
AP-9I	2/15/2024	437.54	28.58	408.66
	4/30/2024		25.96	411.58
	11/1/2024		34.00	403.54
AP-9A	4/30/2024	436.83	25.91	410.92
	11/1/2024		33.94	402.89
AP-10B	2/13/2024	422.24	12.96	409.28
	4/30/2024		10.82	411.42
	11/1/2024		19.04	403.20

Table 2
Groundwater Elevation Data
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Monitoring Well/Piezometer Location	Gauging Date	TOC Elevation (ft-MSL)	Depth to Water (ft)	Water Elevation (ft-MSL)
AP-10I	2/13/2024	422.25	13.05	409.20
	4/30/2024		10.94	411.31
	11/1/2024		19.12	403.13
AP-10A	4/30/2024	422.41	11.78	410.63
	11/1/2024		19.89	402.52
AP-11B	2/14/2024	425.35	16.23	409.12
	4/30/2024		12.52	412.83
	11/1/2024		21.99	403.36
AP-11I	2/14/2024	425.48	16.39	409.09
	4/30/2024		12.66	412.82
	11/1/2024		22.15	403.33
AP-11A	4/30/2024	424.64	12.58	412.06
	11/1/2024		22.03	402.61
MW-2R	4/30/2024	455.00	14.88	440.12
	8/13/2024		18.55	436.45
	9/17/2024		19.35	435.65
	11/1/2024		19.30	435.70
MW-3	4/30/2024	450.71	10.23	440.48
	8/13/2024		11.15	439.56
	11/1/2024		10.93	439.78
MW-4C	4/30/2024	454.44	5.98	448.46
	11/1/2024		6.80	447.64
MW-19B	4/30/2024	421.51	10.95	410.56
	11/1/2024		dry to pump (18.40)	<403.11
MW-19I	4/30/2024	421.28	10.94	410.34
	11/1/2024		19.08	402.20
MW-19A	4/30/2024	421.41	11.07	410.34
	11/1/2024		19.18	402.23
MW-20A	4/30/2024	424.23	13.73	410.50
	11/1/2024		21.81	402.42
MW-20I	4/30/2024	424.00	13.49	410.51
	11/1/2024		21.57	402.43
MW-20B	4/30/2024	423.97	13.47	410.50
	11/1/2024		dry to pump (16.25)	<407.72
MW-21B	4/30/2024	437.24	26.47	410.77
	11/1/2024		34.52	402.72
MW-21I	4/30/2024	437.33	26.58	410.75
	11/1/2024		34.61	402.72
MW-21A	4/30/2024	437.09	26.42	410.67
	11/1/2024		34.46	402.63

Table 2
Groundwater Elevation Data
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Monitoring Well/Piezometer Location	Gauging Date	TOC Elevation (ft-MSL)	Depth to Water (ft)	Water Elevation (ft-MSL)
MW-25B	4/30/2024	427.43	16.79	410.64
	11/1/2024		24.79	402.64
MW-25I	4/30/2024	427.43	16.69	410.74
	11/1/2024		24.75	402.68
MW-25A	4/30/2024	427.59	16.84	410.75
	11/1/2024		24.90	402.69
MW-26B	4/30/2024	423.13	13.12	410.01
	11/1/2024		20.89	402.24
MW-26I	4/30/2024	423.25	13.25	410.00
	11/1/2024		20.99	402.26
MW-26A	4/30/2024	423.03	13.07	409.96
	11/1/2024		20.82	402.21
MW-27B	4/30/2024	420.46	10.78	409.68
	11/1/2024		18.55	401.91
MW-28B	4/30/2024	424.43	14.00	410.43
	11/1/2024		21.80	402.63
MW-28I	4/30/2024	424.26	14.02	410.24
	11/1/2024		21.83	402.43
MW-28A	4/30/2024	424.68	14.27	410.41
	11/1/2024		22.08	402.60
MW-29B	4/30/2024	428.17	16.70	411.47
	11/1/2024		25.21	402.96
MW-29I	4/30/2024	427.78	16.33	411.45
	11/1/2024		24.81	402.97
MW-29A	4/30/2024	427.13	15.67	411.46
	11/1/2024		24.12	403.01
MW-36B	4/30/2024	427.25	16.18	411.07
	11/1/2024		24.47	402.78
MW-36I	4/30/2024	427.20	16.08	411.12
	11/1/2024		24.40	402.80
MW-36A	4/30/2024	426.94	15.81	411.13
	11/1/2024		24.14	402.80
MW-37B	4/30/2024	423.49	12.90	410.59
	11/1/2024		20.99	402.50
MW-37I	4/30/2024	423.64	13.00	410.64
	11/1/2024		21.10	402.54
MW-37A	4/30/2024	423.56	12.95	410.61
	11/1/2024		21.05	402.51
MW-38B	4/30/2024	425.34	14.31	411.03
	11/1/2024		22.65	402.69

Table 2
Groundwater Elevation Data
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Monitoring Well/Piezometer Location	Gauging Date	TOC Elevation (ft-MSL)	Depth to Water (ft)	Water Elevation (ft-MSL)
MW-38I	4/30/2024	425.13	14.11	411.02
	11/1/2024		22.44	402.69
MW-38A	4/30/2024	425.20	14.16	411.04
	11/1/2024		22.46	402.74
MW-39B	4/30/2024	426.58	15.72	410.86
	11/1/2024		24.36	402.22
MW-39I	4/30/2024	426.81	15.53	411.28
	11/1/2024		24.15	402.66
MW-39A	4/30/2024	426.94	15.31	411.63
	11/1/2024		23.90	403.04
MW-40B	4/30/2024	423.69	11.70	411.99
	11/1/2024		20.84	402.85
MW-40I	4/30/2024	423.73	11.75	411.98
	11/1/2024		20.89	402.84
MW-40A	4/30/2024	423.62	11.67	411.95
	11/1/2024		20.81	402.81
MW-41B	4/30/2024	425.31	14.22	411.09
	11/1/2024		22.83	402.48
MW-41I	4/30/2024	425.66	14.69	410.97
	11/1/2024		23.16	402.50
MW-41A	4/30/2024	425.82	14.90	410.92
	11/1/2024		23.34	402.48
MW-42B	4/30/2024	422.18	12.15	410.03
	11/1/2024		19.45	402.73
MW-42I	4/30/2024	421.88	11.76	410.12
	11/1/2024		19.56	402.32
MW-42A	4/30/2024	421.71	11.65	410.06
	11/1/2024		19.96	401.75
MW-43B	4/30/2024	419.84	9.88	409.96
	11/1/2024		17.78	402.06
MW-43I	4/30/2024	419.96	9.94	410.02
	11/1/2024		17.84	402.12
MW-43A	4/30/2024	419.88	9.90	409.98
	11/1/2024		17.76	402.12
MW-44B	4/30/2024	418.79	8.88	409.91
	11/1/2024		16.72	402.07
MW-44I	4/30/2024	418.08	8.17	409.91
	11/1/2024		16.02	402.06
MW-44A	4/30/2024	418.22	8.27	409.95
	11/1/2024		16.10	402.12

Table 2
Groundwater Elevation Data
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Monitoring Well/Piezometer Location	Gauging Date	TOC Elevation (ft-MSL)	Depth to Water (ft)	Water Elevation (ft-MSL)
MW-45B	4/30/2024	428.34	16.84	411.50
	11/1/2024		25.20	403.14
MW-45I	4/30/2024	428.58	17.12	411.46
	11/1/2024		25.46	403.12
MW-45A	4/30/2024	428.37	16.70	411.67
	11/1/2024		25.13	403.24
MW-46B	4/30/2024	424.75	13.54	411.21
	11/1/2024		21.81	402.94
MW-46I	4/30/2024	424.71	13.47	411.24
	11/1/2024		21.75	402.96
MW-46A	4/30/2024	424.52	13.25	411.27
	11/1/2024		21.50	403.02
MW-47B	4/30/2024	427.31	16.09	411.22
	11/1/2024		24.50	402.81
MW-47I	4/30/2024	427.54	16.33	411.21
	11/1/2024		24.64	402.90
MW-47A	4/30/2024	427.5	16.16	411.34
	11/1/2024		24.49	403.01
PZ-1B	4/30/2024	422.54	10.93	411.61
	11/1/2024		19.18	403.36
PZ-1A	4/30/2024	423.63	11.93	411.70
	11/1/2024		20.19	403.44
PZ-2B	4/30/2024	423.5	13.21	410.29
	11/1/2024		21.12	402.38
PZ-2I	4/30/2024	423.02	12.75	410.27
PZ-2A	4/30/2024	422.55	12.29	410.26
	11/1/2024		20.21	402.34

Notes:
TOC = Top of Casing
ft-MSL = feet above Mean Sea Level
NA = Not available

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	AP-1R (Field Reading)	AP-1R (P2R4)	AP-1R (P3R4)	AP-2A (Field Reading)
Sample Date		11/6/2023	11/6/2023	11/6/2023	11/7/2023
Pace Lab ID		0	50358898001	50358885001	0
Static Water Elevation		404.18	#N/A	#N/A	402.92
Field Parameters					
Temperature, Field	°C	19.01	#N/A	#N/A	17.79
Dissolved Oxygen, Field	mg/L	0.23	#N/A	#N/A	0.33
Conductivity, Field	uS/cm	1691.06	#N/A	#N/A	2219.28
ORP, Field	mV	-118.33	#N/A	#N/A	-153.78
pH, Field	S.U.	6.99	#N/A	#N/A	7.71
Turbidity, Field	NTU	574.80	#N/A	#N/A	695.28
Appendix III Constituents					
Boron, Total	ug/L	#N/A	10600	#N/A	#N/A
Calcium, Total	ug/L	#N/A	422000	#N/A	#N/A
Chloride	mg/L	#N/A	132	#N/A	#N/A
Fluoride	mg/L	#N/A	<0.1	#N/A	#N/A
Sulfate	mg/L	#N/A	892	#N/A	#N/A
Total Dissolved Solids	mg/L	#N/A	1870	1870	#N/A
pH at 25 Degrees C	Std. Units	#N/A	7.3	#N/A	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	#N/A	1.8	#N/A	#N/A
Barium, Total	ug/L	#N/A	68.4	#N/A	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	#N/A	<2	#N/A	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	#N/A	<1	#N/A	#N/A
Lead, Total	ug/L	#N/A	<10	#N/A	#N/A
Lithium, Total	ug/L	#N/A	<20	#N/A	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	#N/A	<10	#N/A	#N/A
Molybdenum, Dissolved	ug/L	#N/A	#N/A	10.9	#N/A
Radium-226	pCi/L	#N/A	<-0.291	#N/A	#N/A
Radium-228	pCi/L	#N/A	0.93	#N/A	#N/A
Selenium, Total	ug/L	#N/A	<1	#N/A	#N/A
Thallium, Total	ug/L	#N/A	<1	#N/A	#N/A
Total Radium	pCi/L	#N/A	0.93	#N/A	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	#N/A	#N/A	310	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	#N/A	#N/A	310	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	#N/A	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	#N/A	#N/A	<10	#N/A
Aluminum, Total	ug/L	#N/A	#N/A	177	#N/A
Boron, Dissolved	ug/L	#N/A	#N/A	10600	#N/A
Bromide	mg/L	#N/A	#N/A	6.2	#N/A
Dissolved Organic Carbon	mg/L	#N/A	#N/A	3.5	#N/A
Iron, Total	ug/L	#N/A	#N/A	12600	#N/A
Iron, Ferrous	mg/L	#N/A	#N/A	1.1	#N/A
Iron, Dissolved	ug/L	#N/A	#N/A	12100	#N/A
Magnesium, Total	ug/L	#N/A	#N/A	65000	#N/A
Magnesium, Dissolved	ug/L	#N/A	#N/A	61300	#N/A
Manganese, Total	ug/L	#N/A	#N/A	8980	#N/A
Manganese, Dissolved	ug/L	#N/A	#N/A	8720	#N/A
Nitrogen, Nitrate	mg/L	#N/A	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	#N/A	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	#N/A	#N/A	2.5	#N/A
Potassium, Total	ug/L	#N/A	#N/A	1460	#N/A
Potassium, Dissolved	ug/L	#N/A	#N/A	1480	#N/A
Silica, Total	ug/L	#N/A	#N/A	24500	#N/A
Sodium, Total	ug/L	#N/A	#N/A	57100	#N/A
Sulfide	mg/L	#N/A	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	#N/A	#N/A	2.9	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	AP-2A (P2R4)	AP-2A (P3R4)	AP-2BO (Field Reading)	AP-2BO (P2R4)
Sample Date		11/7/2023	11/7/2023	11/7/2023	11/7/2023
Pace Lab ID		50359026002	50359042002	0	50359026001
Static Water Elevation		#N/A	#N/A	403.07	#N/A
Field Parameters					
Temperature, Field	°C	#N/A	#N/A	17.23	#N/A
Dissolved Oxygen, Field	mg/L	#N/A	#N/A	0.17	#N/A
Conductivity, Field	uS/cm	#N/A	#N/A	1902.32	#N/A
ORP, Field	mV	#N/A	#N/A	-9.51	#N/A
pH, Field	S.U.	#N/A	#N/A	7.04	#N/A
Turbidity, Field	NTU	#N/A	#N/A	0.43	#N/A
Appendix III Constituents					
Boron, Total	ug/L	21600	#N/A	#N/A	17300
Calcium, Total	ug/L	690000	#N/A	#N/A	570000
Chloride	mg/L	184	#N/A	#N/A	93.3
Fluoride	mg/L	0.13	#N/A	#N/A	<0.1
Sulfate	mg/L	1570	#N/A	#N/A	1250
Total Dissolved Solids	mg/L	2720	2870	#N/A	2190
pH at 25 Degrees C	Std. Units	7	#N/A	#N/A	7.4
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	1580	#N/A	#N/A	3.4
Barium, Total	ug/L	54	#N/A	#N/A	22.8
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	#N/A	<2
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	#N/A	#N/A	3
Lead, Total	ug/L	<10	#N/A	#N/A	<10
Lithium, Total	ug/L	69.6	#N/A	#N/A	<20
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	779	#N/A	#N/A	454
Molybdenum, Dissolved	ug/L	#N/A	808	#N/A	#N/A
Radium-226	pCi/L	0.884	#N/A	#N/A	1.04
Radium-228	pCi/L	1.76	#N/A	#N/A	0.539
Selenium, Total	ug/L	2	#N/A	#N/A	<1
Thallium, Total	ug/L	<1	#N/A	#N/A	<1
Total Radium	pCi/L	2.64	#N/A	#N/A	1.58
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	#N/A	54.2	#N/A	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	#N/A	54.2	#N/A	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	#N/A	<10	#N/A	#N/A
Aluminum, Dissolved	ug/L	#N/A	<10	#N/A	#N/A
Aluminum, Total	ug/L	#N/A	<10	#N/A	#N/A
Boron, Dissolved	ug/L	#N/A	21800	#N/A	#N/A
Bromide	mg/L	#N/A	10.3	#N/A	#N/A
Dissolved Organic Carbon	mg/L	#N/A	5.6	#N/A	#N/A
Iron, Total	ug/L	#N/A	4370	#N/A	#N/A
Iron, Ferrous	mg/L	#N/A	0.67	#N/A	#N/A
Iron, Dissolved	ug/L	#N/A	4370	#N/A	#N/A
Magnesium, Total	ug/L	#N/A	9790	#N/A	#N/A
Magnesium, Dissolved	ug/L	#N/A	9660	#N/A	#N/A
Manganese, Total	ug/L	#N/A	1050	#N/A	#N/A
Manganese, Dissolved	ug/L	#N/A	1060	#N/A	#N/A
Nitrogen, Nitrate	mg/L	#N/A	<0.1	#N/A	#N/A
Nitrogen, Nitrite	mg/L	#N/A	<0.1	#N/A	#N/A
Phosphate as P04	mg/L	#N/A	2.4	#N/A	#N/A
Potassium, Total	ug/L	#N/A	44700	#N/A	#N/A
Potassium, Dissolved	ug/L	#N/A	46400	#N/A	#N/A
Silica, Total	ug/L	#N/A	8800	#N/A	#N/A
Sodium, Total	ug/L	#N/A	43800	#N/A	#N/A
Sulfide	mg/L	#N/A	0.12	#N/A	#N/A
Total Organic Carbon	mg/L	#N/A	4.3	#N/A	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	AP-2BO (P3R4)	AP-3 (Field Reading)	AP-3 (P2R4)	AP-3 (P3R4)
Sample Date		11/7/2023	11/15/2023	11/15/2023	11/15/2023
Pace Lab ID		50359042001	0	50359842003	50359836003
Static Water Elevation		#N/A	#VALUE!	#N/A	#N/A
Field Parameters					
Temperature, Field	°C	#N/A	17.55	#N/A	#N/A
Dissolved Oxygen, Field	mg/L	#N/A	4.26	#N/A	#N/A
Conductivity, Field	uS/cm	#N/A	839.60	#N/A	#N/A
ORP, Field	mV	#N/A	80.85	#N/A	#N/A
pH, Field	S.U.	#N/A	5.66	#N/A	#N/A
Turbidity, Field	NTU	#N/A	0.18	#N/A	#N/A
Appendix III Constituents					
Boron, Total	ug/L	#N/A	#N/A	1800	#N/A
Calcium, Total	ug/L	#N/A	#N/A	168000	#N/A
Chloride	mg/L	#N/A	#N/A	14.8	#N/A
Fluoride	mg/L	#N/A	#N/A	<0.1	#N/A
Sulfate	mg/L	#N/A	#N/A	165	#N/A
Total Dissolved Solids	mg/L	2270	#N/A	682	688
pH at 25 Degrees C	Std. Units	#N/A	#N/A	7.4	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	#N/A	#N/A	<1	#N/A
Barium, Total	ug/L	#N/A	#N/A	34	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	#N/A	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	#N/A	#N/A	<1	#N/A
Lead, Total	ug/L	#N/A	#N/A	<10	#N/A
Lithium, Total	ug/L	#N/A	#N/A	<20	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	#N/A	#N/A	<10	#N/A
Molybdenum, Dissolved	ug/L	480	#N/A	#N/A	<10
Radium-226	pCi/L	#N/A	#N/A	<0.206	#N/A
Radium-228	pCi/L	#N/A	#N/A	0.859	#N/A
Selenium, Total	ug/L	#N/A	#N/A	3.1	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	#N/A	#N/A	1.07	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	171	#N/A	#N/A	380
Alkalinity,Bicarbonate (CaCO3)	mg/L	171	#N/A	#N/A	380
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	#N/A	<10
Aluminum, Dissolved	ug/L	<10	#N/A	#N/A	<10
Aluminum, Total	ug/L	<10	#N/A	#N/A	<10
Boron, Dissolved	ug/L	17400	#N/A	#N/A	1810
Bromide	mg/L	3.3	#N/A	#N/A	0.2
Dissolved Organic Carbon	mg/L	4	#N/A	#N/A	2.6
Iron, Total	ug/L	220	#N/A	#N/A	<100
Iron, Ferrous	mg/L	<0.2	#N/A	#N/A	<0.2
Iron, Dissolved	ug/L	172	#N/A	#N/A	<100
Magnesium, Total	ug/L	28800	#N/A	#N/A	39200
Magnesium, Dissolved	ug/L	28000	#N/A	#N/A	37500
Manganese, Total	ug/L	2100	#N/A	#N/A	63.3
Manganese, Dissolved	ug/L	2520	#N/A	#N/A	53.5
Nitrogen, Nitrate	mg/L	<0.1	#N/A	#N/A	8.8
Nitrogen, Nitrite	mg/L	<0.1	#N/A	#N/A	<0.5
Phosphate as P04	mg/L	0.17	#N/A	#N/A	<0.15
Potassium, Total	ug/L	9870	#N/A	#N/A	1890
Potassium, Dissolved	ug/L	10300	#N/A	#N/A	1860
Silica, Total	ug/L	12800	#N/A	#N/A	15100
Sodium, Total	ug/L	31300	#N/A	#N/A	11700
Sulfide	mg/L	<0.1	#N/A	#N/A	<0.1
Total Organic Carbon	mg/L	3.2	#N/A	#N/A	2

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	AP-3A (Field Reading)	AP-3A (P2R4)	AP-3A (P3R4)	AP-4A (Field Reading)
Sample Date		11/7/2023	11/7/2023	11/7/2023	11/9/2023
Pace Lab ID		0	50359026003	50359042003	0
Static Water Elevation		402.83	#N/A	#N/A	402.73
Field Parameters					
Temperature, Field	°C	17.72	#N/A	#N/A	17.01
Dissolved Oxygen, Field	mg/L	0.17	#N/A	#N/A	0.21
Conductivity, Field	uS/cm	2249.12	#N/A	#N/A	2221.03
ORP, Field	mV	-119.01	#N/A	#N/A	-90.38
pH, Field	S.U.	7.32	#N/A	#N/A	7.11
Turbidity, Field	NTU	7.59	#N/A	#N/A	5.52
Appendix III Constituents					
Boron, Total	ug/L	#N/A	28200	#N/A	#N/A
Calcium, Total	ug/L	#N/A	699000	#N/A	#N/A
Chloride	mg/L	#N/A	196	#N/A	#N/A
Fluoride	mg/L	#N/A	<0.1	#N/A	#N/A
Sulfate	mg/L	#N/A	1580	#N/A	#N/A
Total Dissolved Solids	mg/L	#N/A	2870	2820	#N/A
pH at 25 Degrees C	Std. Units	#N/A	6.7	#N/A	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	#N/A	1.9	#N/A	#N/A
Barium, Total	ug/L	#N/A	33.3	#N/A	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	#N/A	<2	#N/A	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	#N/A	<1	#N/A	#N/A
Lead, Total	ug/L	#N/A	<10	#N/A	#N/A
Lithium, Total	ug/L	#N/A	<20	#N/A	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	#N/A	543	#N/A	#N/A
Molybdenum, Dissolved	ug/L	#N/A	#N/A	562	#N/A
Radium-226	pCi/L	#N/A	0.55	#N/A	#N/A
Radium-228	pCi/L	#N/A	0.626	#N/A	#N/A
Selenium, Total	ug/L	#N/A	<1	#N/A	#N/A
Thallium, Total	ug/L	#N/A	<1	#N/A	#N/A
Total Radium	pCi/L	#N/A	1.18	#N/A	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	#N/A	#N/A	64.2	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	#N/A	#N/A	64.2	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	#N/A	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	#N/A	#N/A	<10	#N/A
Aluminum, Total	ug/L	#N/A	#N/A	27.3	#N/A
Boron, Dissolved	ug/L	#N/A	#N/A	28200	#N/A
Bromide	mg/L	#N/A	#N/A	9.8	#N/A
Dissolved Organic Carbon	mg/L	#N/A	#N/A	4.9	#N/A
Iron, Total	ug/L	#N/A	#N/A	8000	#N/A
Iron, Ferrous	mg/L	#N/A	#N/A	3	#N/A
Iron, Dissolved	ug/L	#N/A	#N/A	7680	#N/A
Magnesium, Total	ug/L	#N/A	#N/A	32000	#N/A
Magnesium, Dissolved	ug/L	#N/A	#N/A	31200	#N/A
Manganese, Total	ug/L	#N/A	#N/A	2730	#N/A
Manganese, Dissolved	ug/L	#N/A	#N/A	2770	#N/A
Nitrogen, Nitrate	mg/L	#N/A	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	#N/A	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	#N/A	#N/A	0.2	#N/A
Potassium, Total	ug/L	#N/A	#N/A	16400	#N/A
Potassium, Dissolved	ug/L	#N/A	#N/A	16500	#N/A
Silica, Total	ug/L	#N/A	#N/A	12700	#N/A
Sodium, Total	ug/L	#N/A	#N/A	50700	#N/A
Sulfide	mg/L	#N/A	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	#N/A	#N/A	2.5	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	AP-4A (P2R4)	AP-4A (P3R4)	AP-4B (Field Reading)	AP-4B (P2R4)
Sample Date		11/9/2023	11/9/2023	11/15/2023	11/15/2023
Pace Lab ID		50359387001	50359369001	0	50359842002
Static Water Elevation		#N/A	#N/A	#VALUE!	#N/A
Field Parameters					
Temperature, Field	°C	#N/A	#N/A	18.27	#N/A
Dissolved Oxygen, Field	mg/L	#N/A	#N/A	2.47	#N/A
Conductivity, Field	uS/cm	#N/A	#N/A	914.55	#N/A
ORP, Field	mV	#N/A	#N/A	71.44	#N/A
pH, Field	S.U.	#N/A	#N/A	5.61	#N/A
Turbidity, Field	NTU	#N/A	#N/A	0.89	#N/A
Appendix III Constituents					
Boron, Total	ug/L	24600	#N/A	#N/A	420
Calcium, Total	ug/L	650000	#N/A	#N/A	181000
Chloride	mg/L	166	#N/A	#N/A	17.1
Fluoride	mg/L	<0.1	#N/A	#N/A	<0.1
Sulfate	mg/L	1960	#N/A	#N/A	129
Total Dissolved Solids	mg/L	2900	2830	#N/A	727
pH at 25 Degrees C	Std. Units	6.9	#N/A	#N/A	7.6
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	<1	#N/A	#N/A	<1
Barium, Total	ug/L	28.4	#N/A	#N/A	105
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	#N/A	<2
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	#N/A	#N/A	<1
Lead, Total	ug/L	<10	#N/A	#N/A	<10
Lithium, Total	ug/L	40.3	#N/A	#N/A	<20
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	252	#N/A	#N/A	<10
Molybdenum, Dissolved	ug/L	#N/A	246	#N/A	#N/A
Radium-226	pCi/L	<0.218	#N/A	#N/A	<0
Radium-228	pCi/L	0.367	#N/A	#N/A	<0.256
Selenium, Total	ug/L	<1	#N/A	#N/A	14
Thallium, Total	ug/L	<1	#N/A	#N/A	#N/A
Total Radium	pCi/L	<0.585	#N/A	#N/A	<0.256
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	#N/A	124	#N/A	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	#N/A	124	#N/A	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	#N/A	<10	#N/A	#N/A
Aluminum, Dissolved	ug/L	#N/A	<10	#N/A	#N/A
Aluminum, Total	ug/L	#N/A	<10	#N/A	#N/A
Boron, Dissolved	ug/L	#N/A	24100	#N/A	#N/A
Bromide	mg/L	#N/A	7.7	#N/A	#N/A
Dissolved Organic Carbon	mg/L	#N/A	4.3	#N/A	#N/A
Iron, Total	ug/L	#N/A	7880	#N/A	#N/A
Iron, Ferrous	mg/L	#N/A	5.3	#N/A	#N/A
Iron, Dissolved	ug/L	#N/A	7930	#N/A	#N/A
Magnesium, Total	ug/L	#N/A	79300	#N/A	#N/A
Magnesium, Dissolved	ug/L	#N/A	79400	#N/A	#N/A
Manganese, Total	ug/L	#N/A	3270	#N/A	#N/A
Manganese, Dissolved	ug/L	#N/A	3390	#N/A	#N/A
Nitrogen, Nitrate	mg/L	#N/A	<0.1	#N/A	#N/A
Nitrogen, Nitrite	mg/L	#N/A	<0.1	#N/A	#N/A
Phosphate as P04	mg/L	#N/A	0.15	#N/A	#N/A
Potassium, Total	ug/L	#N/A	17000	#N/A	#N/A
Potassium, Dissolved	ug/L	#N/A	17900	#N/A	#N/A
Silica, Total	ug/L	#N/A	11800	#N/A	#N/A
Sodium, Total	ug/L	#N/A	50700	#N/A	#N/A
Sulfide	mg/L	#N/A	0.03	#N/A	#N/A
Total Organic Carbon	mg/L	#N/A	2	#N/A	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	AP-4B (P3R4)	AP-4I (Field Reading)	AP-4I (P2R4)	AP-4I (P3R4)
Sample Date		11/15/2023	11/9/2023	11/9/2023	11/9/2023
Pace Lab ID		50359836002	0	50359387003	50359369003
Static Water Elevation		#N/A	402.78	#N/A	#N/A
Field Parameters					
Temperature, Field	°C	#N/A	16.83	#N/A	#N/A
Dissolved Oxygen, Field	mg/L	#N/A	0.16	#N/A	#N/A
Conductivity, Field	uS/cm	#N/A	1984.64	#N/A	#N/A
ORP, Field	mV	#N/A	-35.39	#N/A	#N/A
pH, Field	S.U.	#N/A	7.05	#N/A	#N/A
Turbidity, Field	NTU	#N/A	136.56	#N/A	#N/A
Appendix III Constituents					
Boron, Total	ug/L	#N/A	#N/A	9650	#N/A
Calcium, Total	ug/L	#N/A	#N/A	642000	#N/A
Chloride	mg/L	#N/A	#N/A	90	#N/A
Fluoride	mg/L	#N/A	#N/A	0.16	#N/A
Sulfate	mg/L	#N/A	#N/A	1620	#N/A
Total Dissolved Solids	mg/L	750	#N/A	2710	2700
pH at 25 Degrees C	Std. Units	#N/A	#N/A	7	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	#N/A	#N/A	<1	#N/A
Barium, Total	ug/L	#N/A	#N/A	22.4	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	#N/A	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	#N/A	#N/A	3	#N/A
Lead, Total	ug/L	#N/A	#N/A	<10	#N/A
Lithium, Total	ug/L	#N/A	#N/A	<20	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	#N/A	#N/A	78.1	#N/A
Molybdenum, Dissolved	ug/L	<10	#N/A	#N/A	74.9
Radium-226	pCi/L	#N/A	#N/A	0.533	#N/A
Radium-228	pCi/L	#N/A	#N/A	<0.152	#N/A
Selenium, Total	ug/L	#N/A	#N/A	<1	#N/A
Thallium, Total	ug/L	#N/A	#N/A	<1	#N/A
Total Radium	pCi/L	#N/A	#N/A	0.685	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	447	#N/A	#N/A	194
Alkalinity,Bicarbonate (CaCO3)	mg/L	447	#N/A	#N/A	194
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	#N/A	<10
Aluminum, Dissolved	ug/L	<10	#N/A	#N/A	<10
Aluminum, Total	ug/L	14	#N/A	#N/A	<10
Boron, Dissolved	ug/L	428	#N/A	#N/A	9700
Bromide	mg/L	0.15	#N/A	#N/A	1.1
Dissolved Organic Carbon	mg/L	3.9	#N/A	#N/A	3.4
Iron, Total	ug/L	<100	#N/A	#N/A	817
Iron, Ferrous	mg/L	<0.2	#N/A	#N/A	0.65
Iron, Dissolved	ug/L	<100	#N/A	#N/A	723
Magnesium, Total	ug/L	42900	#N/A	#N/A	61400
Magnesium, Dissolved	ug/L	43200	#N/A	#N/A	61200
Manganese, Total	ug/L	7.2	#N/A	#N/A	5280
Manganese, Dissolved	ug/L	10.2	#N/A	#N/A	5250
Nitrogen, Nitrate	mg/L	14	#N/A	#N/A	<0.1
Nitrogen, Nitrite	mg/L	<2.5	#N/A	#N/A	<0.1
Phosphate as P04	mg/L	<0.15	#N/A	#N/A	<0.15
Potassium, Total	ug/L	<1000	#N/A	#N/A	5950
Potassium, Dissolved	ug/L	<1000	#N/A	#N/A	6200
Silica, Total	ug/L	13700	#N/A	#N/A	12600
Sodium, Total	ug/L	6650	#N/A	#N/A	27700
Sulfide	mg/L	<0.1	#N/A	#N/A	<0.1
Total Organic Carbon	mg/L	2.3	#N/A	#N/A	1.4

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	AP-5 (Field Reading)	AP-5 (P2R4)	AP-5 (P3R4)	AP-5A (Field Reading)
Sample Date		11/9/2023	11/9/2023	11/9/2023	11/12/2023
Pace Lab ID		0	50359387004	50359369004	0
Static Water Elevation		402.78	#N/A	#N/A	402.94
Field Parameters					
Temperature, Field	°C	16.79	#N/A	#N/A	15.39
Dissolved Oxygen, Field	mg/L	0.39	#N/A	#N/A	0.30
Conductivity, Field	uS/cm	1330.09	#N/A	#N/A	2116.78
ORP, Field	mV	48.41	#N/A	#N/A	-145.06
pH, Field	S.U.	7.03	#N/A	#N/A	7.45
Turbidity, Field	NTU	1209.78	#N/A	#N/A	22.04
Appendix III Constituents					
Boron, Total	ug/L	#N/A	5500	#N/A	#N/A
Calcium, Total	ug/L	#N/A	380000	#N/A	#N/A
Chloride	mg/L	#N/A	31.6	32.4	#N/A
Fluoride	mg/L	#N/A	<0.1	#N/A	#N/A
Sulfate	mg/L	#N/A	773	775	#N/A
Total Dissolved Solids	mg/L	#N/A	1620	1600	#N/A
pH at 25 Degrees C	Std. Units	#N/A	7.1	#N/A	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	#N/A	<1	#N/A	#N/A
Barium, Total	ug/L	#N/A	42.9	#N/A	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	#N/A	<2	#N/A	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	#N/A	<1	#N/A	#N/A
Lead, Total	ug/L	#N/A	<10	#N/A	#N/A
Lithium, Total	ug/L	#N/A	<20	#N/A	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	#N/A	65.6	#N/A	#N/A
Molybdenum, Dissolved	ug/L	#N/A	#N/A	64.8	#N/A
Radium-226	pCi/L	#N/A	<0.16	#N/A	#N/A
Radium-228	pCi/L	#N/A	0.683	#N/A	#N/A
Selenium, Total	ug/L	#N/A	2	#N/A	#N/A
Thallium, Total	ug/L	#N/A	<1	#N/A	#N/A
Total Radium	pCi/L	#N/A	0.843	#N/A	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	#N/A	#N/A	267	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	#N/A	#N/A	267	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	#N/A	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	#N/A	#N/A	<10	#N/A
Aluminum, Total	ug/L	#N/A	#N/A	<10	#N/A
Boron, Dissolved	ug/L	#N/A	#N/A	5560	#N/A
Bromide	mg/L	#N/A	#N/A	0.29	#N/A
Dissolved Organic Carbon	mg/L	#N/A	#N/A	1.8	#N/A
Iron, Total	ug/L	#N/A	#N/A	<100	#N/A
Iron, Ferrous	mg/L	#N/A	#N/A	<0.2	#N/A
Iron, Dissolved	ug/L	#N/A	#N/A	<100	#N/A
Magnesium, Total	ug/L	#N/A	#N/A	40800	#N/A
Magnesium, Dissolved	ug/L	#N/A	#N/A	40400	#N/A
Manganese, Total	ug/L	#N/A	#N/A	1600	#N/A
Manganese, Dissolved	ug/L	#N/A	#N/A	1580	#N/A
Nitrogen, Nitrate	mg/L	#N/A	#N/A	4.3	#N/A
Nitrogen, Nitrite	mg/L	#N/A	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	#N/A	#N/A	<0.15	#N/A
Potassium, Total	ug/L	#N/A	#N/A	8910	#N/A
Potassium, Dissolved	ug/L	#N/A	#N/A	9360	#N/A
Silica, Total	ug/L	#N/A	#N/A	13200	#N/A
Sodium, Total	ug/L	#N/A	#N/A	23600	#N/A
Sulfide	mg/L	#N/A	#N/A	0.14	#N/A
Total Organic Carbon	mg/L	#N/A	#N/A	<1	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	AP-5A (P2R4)	AP-5A (P3R4)	AP-6A (Field Reading)	AP-6A (P2R4)
Sample Date		11/12/2023	11/12/2023	11/12/2023	11/12/2023
Pace Lab ID		50359561001	50359550001	0	50359561002
Static Water Elevation		#N/A	#N/A	#VALUE!	#N/A
Field Parameters					
Temperature, Field	°C	#N/A	#N/A	14.29	#N/A
Dissolved Oxygen, Field	mg/L	#N/A	#N/A	0.20	#N/A
Conductivity, Field	uS/cm	#N/A	#N/A	1368.56	#N/A
ORP, Field	mV	#N/A	#N/A	-142.32	#N/A
pH, Field	S.U.	#N/A	#N/A	7.31	#N/A
Turbidity, Field	NTU	#N/A	#N/A	252.40	#N/A
Appendix III Constituents					
Boron, Total	ug/L	9690	#N/A	#N/A	4270
Calcium, Total	ug/L	631000	#N/A	#N/A	313000
Chloride	mg/L	53	#N/A	#N/A	23.9
Fluoride	mg/L	<0.1	#N/A	#N/A	<0.1
Sulfate	mg/L	1770	#N/A	#N/A	707
Total Dissolved Solids	mg/L	2520	2600	#N/A	1420
pH at 25 Degrees C	Std. Units	6.8	#N/A	#N/A	6.9
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	<1	#N/A	#N/A	<1
Barium, Total	ug/L	24.5	#N/A	#N/A	23.1
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	#N/A	<2
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	#N/A	#N/A	<1
Lead, Total	ug/L	<10	#N/A	#N/A	<10
Lithium, Total	ug/L	<20	#N/A	#N/A	<20
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	310	#N/A	#N/A	<10
Molybdenum, Dissolved	ug/L	#N/A	306	#N/A	#N/A
Radium-226	pCi/L	<0	#N/A	#N/A	<0.435
Radium-228	pCi/L	<0.129	#N/A	#N/A	0.369
Selenium, Total	ug/L	<1	#N/A	#N/A	<1
Thallium, Total	ug/L	<1	#N/A	#N/A	<1
Total Radium	pCi/L	<0.129	#N/A	#N/A	<0.804
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	#N/A	91.4	#N/A	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	#N/A	91.4	#N/A	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	#N/A	<10	#N/A	#N/A
Aluminum, Dissolved	ug/L	#N/A	<10	#N/A	#N/A
Aluminum, Total	ug/L	#N/A	25.6	#N/A	#N/A
Boron, Dissolved	ug/L	#N/A	9800	#N/A	#N/A
Bromide	mg/L	#N/A	0.4	#N/A	#N/A
Dissolved Organic Carbon	mg/L	#N/A	2.4	#N/A	#N/A
Iron, Total	ug/L	#N/A	11200	#N/A	#N/A
Iron, Ferrous	mg/L	#N/A	7.6	#N/A	#N/A
Iron, Dissolved	ug/L	#N/A	11800	#N/A	#N/A
Magnesium, Total	ug/L	#N/A	48700	#N/A	#N/A
Magnesium, Dissolved	ug/L	#N/A	49700	#N/A	#N/A
Manganese, Total	ug/L	#N/A	1920	#N/A	#N/A
Manganese, Dissolved	ug/L	#N/A	1940	#N/A	#N/A
Nitrogen, Nitrate	mg/L	#N/A	<0.1	#N/A	#N/A
Nitrogen, Nitrite	mg/L	#N/A	<0.1	#N/A	#N/A
Phosphate as P04	mg/L	#N/A	0.39	#N/A	#N/A
Potassium, Total	ug/L	#N/A	3620	#N/A	#N/A
Potassium, Dissolved	ug/L	#N/A	3710	#N/A	#N/A
Silica, Total	ug/L	#N/A	13600	#N/A	#N/A
Sodium, Total	ug/L	#N/A	54700	#N/A	#N/A
Sulfide	mg/L	#N/A	<0.1	#N/A	#N/A
Total Organic Carbon	mg/L	#N/A	1.7	#N/A	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	AP-6A (P3R4)	AP-6B (Field Reading)	AP-6B (P2R4)	AP-6B (P3R4)
Sample Date		11/12/2023	11/15/2023	11/15/2023	11/15/2023
Pace Lab ID		50359550002	0	50359842001	50359836001
Static Water Elevation		#N/A	403.07	#N/A	#N/A
Field Parameters					
Temperature, Field	°C	#N/A	15.15	#N/A	#N/A
Dissolved Oxygen, Field	mg/L	#N/A	5.80	#N/A	#N/A
Conductivity, Field	uS/cm	#N/A	827.41	#N/A	#N/A
ORP, Field	mV	#N/A	62.46	#N/A	#N/A
pH, Field	S.U.	#N/A	5.86	#N/A	#N/A
Turbidity, Field	NTU	#N/A	0.31	#N/A	#N/A
Appendix III Constituents					
Boron, Total	ug/L	#N/A	#N/A	665	#N/A
Calcium, Total	ug/L	#N/A	#N/A	185000	#N/A
Chloride	mg/L	#N/A	#N/A	6.7	#N/A
Fluoride	mg/L	#N/A	#N/A	<0.1	#N/A
Sulfate	mg/L	#N/A	#N/A	280	#N/A
Total Dissolved Solids	mg/L	1470	#N/A	741	760
pH at 25 Degrees C	Std. Units	#N/A	#N/A	7.8	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	#N/A	#N/A	<1	#N/A
Barium, Total	ug/L	#N/A	#N/A	26.4	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	#N/A	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	#N/A	#N/A	<1	#N/A
Lead, Total	ug/L	#N/A	#N/A	<10	#N/A
Lithium, Total	ug/L	#N/A	#N/A	<20	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	#N/A	#N/A	<10	#N/A
Molybdenum, Dissolved	ug/L	<10	#N/A	#N/A	<10
Radium-226	pCi/L	#N/A	#N/A	0.555	#N/A
Radium-228	pCi/L	#N/A	#N/A	0.752	#N/A
Selenium, Total	ug/L	#N/A	#N/A	6	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	#N/A	#N/A	1.31	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	336	#N/A	#N/A	298
Alkalinity,Bicarbonate (CaCO3)	mg/L	336	#N/A	#N/A	298
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	#N/A	<10
Aluminum, Dissolved	ug/L	<10	#N/A	#N/A	<10
Aluminum, Total	ug/L	<10	#N/A	#N/A	13.9
Boron, Dissolved	ug/L	4230	#N/A	#N/A	629
Bromide	mg/L	0.31	#N/A	#N/A	<0.05
Dissolved Organic Carbon	mg/L	4.2	#N/A	#N/A	3.1
Iron, Total	ug/L	10300	#N/A	#N/A	<100
Iron, Ferrous	mg/L	4.2	#N/A	#N/A	<0.2
Iron, Dissolved	ug/L	10600	#N/A	#N/A	<100
Magnesium, Total	ug/L	76900	#N/A	#N/A	36900
Magnesium, Dissolved	ug/L	76900	#N/A	#N/A	34400
Manganese, Total	ug/L	1010	#N/A	#N/A	1.5
Manganese, Dissolved	ug/L	1010	#N/A	#N/A	<1
Nitrogen, Nitrate	mg/L	<0.1	#N/A	#N/A	2.2
Nitrogen, Nitrite	mg/L	<0.1	#N/A	#N/A	<0.1
Phosphate as P04	mg/L	0.38	#N/A	#N/A	0.26
Potassium, Total	ug/L	2310	#N/A	#N/A	<1000
Potassium, Dissolved	ug/L	2090	#N/A	#N/A	<1000
Silica, Total	ug/L	12600	#N/A	#N/A	13300
Sodium, Total	ug/L	14800	#N/A	#N/A	7630
Sulfide	mg/L	<0.1	#N/A	#N/A	<0.1
Total Organic Carbon	mg/L	1.4	#N/A	#N/A	1.6

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	AP-7 (Field Reading)	AP-7 (P2R4)	AP-7 (P3R4)	AP-8 (Field Reading)
Sample Date		11/12/2023	11/12/2023	11/12/2023	11/12/2023
Pace Lab ID		0	50359561003	50359550003	0
Static Water Elevation		420.48	#N/A	#N/A	435.26
Field Parameters					
Temperature, Field	°C	15.25	#N/A	#N/A	16.52
Dissolved Oxygen, Field	mg/L	0.18	#N/A	#N/A	0.16
Conductivity, Field	uS/cm	1115.10	#N/A	#N/A	1180.90
ORP, Field	mV	-267.23	#N/A	#N/A	-94.36
pH, Field	S.U.	6.91	#N/A	#N/A	5.67
Turbidity, Field	NTU	4.08	#N/A	#N/A	0.48
Appendix III Constituents					
Boron, Total	ug/L	#N/A	202	#N/A	#N/A
Calcium, Total	ug/L	#N/A	217000	#N/A	#N/A
Chloride	mg/L	#N/A	4.7	#N/A	#N/A
Fluoride	mg/L	#N/A	0.13	#N/A	#N/A
Sulfate	mg/L	#N/A	328	#N/A	#N/A
Total Dissolved Solids	mg/L	#N/A	916	866	#N/A
pH at 25 Degrees C	Std. Units	#N/A	6.7	#N/A	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	#N/A	<1	#N/A	#N/A
Barium, Total	ug/L	#N/A	84.8	#N/A	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	#N/A	<2	#N/A	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	#N/A	<1	#N/A	#N/A
Lead, Total	ug/L	#N/A	<10	#N/A	#N/A
Lithium, Total	ug/L	#N/A	<20	#N/A	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	#N/A	<10	#N/A	#N/A
Molybdenum, Dissolved	ug/L	#N/A	#N/A	<10	#N/A
Radium-226	pCi/L	#N/A	<0.373	#N/A	#N/A
Radium-228	pCi/L	#N/A	1.42	#N/A	#N/A
Selenium, Total	ug/L	#N/A	<1	#N/A	#N/A
Thallium, Total	ug/L	#N/A	<1	#N/A	#N/A
Total Radium	pCi/L	#N/A	1.79	#N/A	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	#N/A	#N/A	498	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	#N/A	#N/A	498	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	#N/A	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	#N/A	#N/A	<10	#N/A
Aluminum, Total	ug/L	#N/A	#N/A	16.9	#N/A
Boron, Dissolved	ug/L	#N/A	#N/A	218	#N/A
Bromide	mg/L	#N/A	#N/A	0.068	#N/A
Dissolved Organic Carbon	mg/L	#N/A	#N/A	5.2	#N/A
Iron, Total	ug/L	#N/A	#N/A	20300	#N/A
Iron, Ferrous	mg/L	#N/A	#N/A	15.4	#N/A
Iron, Dissolved	ug/L	#N/A	#N/A	21700	#N/A
Magnesium, Total	ug/L	#N/A	#N/A	66900	#N/A
Magnesium, Dissolved	ug/L	#N/A	#N/A	70500	#N/A
Manganese, Total	ug/L	#N/A	#N/A	1560	#N/A
Manganese, Dissolved	ug/L	#N/A	#N/A	1540	#N/A
Nitrogen, Nitrate	mg/L	#N/A	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	#N/A	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	#N/A	#N/A	0.82	#N/A
Potassium, Total	ug/L	#N/A	#N/A	2570	#N/A
Potassium, Dissolved	ug/L	#N/A	#N/A	2440	#N/A
Silica, Total	ug/L	#N/A	#N/A	26100	#N/A
Sodium, Total	ug/L	#N/A	#N/A	10700	#N/A
Sulfide	mg/L	#N/A	#N/A	1.5	#N/A
Total Organic Carbon	mg/L	#N/A	#N/A	2.4	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	AP-8 (P2R4)	AP-8 (P3R4)	AP-9B (Field Reading)	AP-9I (Field Reading)
Sample Date		11/12/2023	11/12/2023	11/1/2023	11/1/2023
Pace Lab ID		50359561004	50359550004	0	0
Static Water Elevation		#N/A	#N/A	403	403.34
Field Parameters					
Temperature, Field	°C	#N/A	#N/A	#N/A	19.93
Dissolved Oxygen, Field	mg/L	#N/A	#N/A	#N/A	0.19
Conductivity, Field	uS/cm	#N/A	#N/A	#N/A	2367.73
ORP, Field	mV	#N/A	#N/A	#N/A	-147.77
pH, Field	S.U.	#N/A	#N/A	#N/A	7.09
Turbidity, Field	NTU	#N/A	#N/A	#N/A	8.13
Appendix III Constituents					
Boron, Total	ug/L	839	#N/A	#N/A	#N/A
Calcium, Total	ug/L	155000	#N/A	#N/A	#N/A
Chloride	mg/L	19	#N/A	#N/A	#N/A
Fluoride	mg/L	0.73	#N/A	#N/A	#N/A
Sulfate	mg/L	763	#N/A	#N/A	#N/A
Total Dissolved Solids	mg/L	1240	1250	#N/A	#N/A
pH at 25 Degrees C	Std. Units	6	#N/A	#N/A	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	6	#N/A	#N/A	#N/A
Barium, Total	ug/L	20.3	#N/A	#N/A	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	4	#N/A	#N/A	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	410	#N/A	#N/A	#N/A
Lead, Total	ug/L	<10	#N/A	#N/A	#N/A
Lithium, Total	ug/L	43.3	#N/A	#N/A	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	<10	#N/A	#N/A	#N/A
Molybdenum, Dissolved	ug/L	#N/A	<10	#N/A	#N/A
Radium-226	pCi/L	<0.259	#N/A	#N/A	#N/A
Radium-228	pCi/L	0.403	#N/A	#N/A	#N/A
Selenium, Total	ug/L	<1	#N/A	#N/A	#N/A
Thallium, Total	ug/L	<1	#N/A	#N/A	#N/A
Total Radium	pCi/L	<0.662	#N/A	#N/A	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	#N/A	50.6	#N/A	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	#N/A	50.6	#N/A	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	#N/A	<10	#N/A	#N/A
Aluminum, Dissolved	ug/L	#N/A	792	#N/A	#N/A
Aluminum, Total	ug/L	#N/A	929	#N/A	#N/A
Boron, Dissolved	ug/L	#N/A	857	#N/A	#N/A
Bromide	mg/L	#N/A	0.21	#N/A	#N/A
Dissolved Organic Carbon	mg/L	#N/A	6.6	#N/A	#N/A
Iron, Total	ug/L	#N/A	142000	#N/A	#N/A
Iron, Ferrous	mg/L	#N/A	143	#N/A	#N/A
Iron, Dissolved	ug/L	#N/A	152000	#N/A	#N/A
Magnesium, Total	ug/L	#N/A	44800	#N/A	#N/A
Magnesium, Dissolved	ug/L	#N/A	43900	#N/A	#N/A
Manganese, Total	ug/L	#N/A	10900	#N/A	#N/A
Manganese, Dissolved	ug/L	#N/A	10900	#N/A	#N/A
Nitrogen, Nitrate	mg/L	#N/A	<0.5	#N/A	#N/A
Nitrogen, Nitrite	mg/L	#N/A	<0.5	#N/A	#N/A
Phosphate as P04	mg/L	#N/A	<0.15	#N/A	#N/A
Potassium, Total	ug/L	#N/A	5040	#N/A	#N/A
Potassium, Dissolved	ug/L	#N/A	4910	#N/A	#N/A
Silica, Total	ug/L	#N/A	41800	#N/A	#N/A
Sodium, Total	ug/L	#N/A	13300	#N/A	#N/A
Sulfide	mg/L	#N/A	<0.1	#N/A	#N/A
Total Organic Carbon	mg/L	#N/A	4.3	#N/A	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	AP-9I (P4R3)	AP-9A (Field Reading)	AP-9A (P4R3)	AP-10B (Field Reading)
Sample Date		11/7/2023	11/1/2023	11/7/2023	11/1/2023
Pace Lab ID		50359034001	0	50359034003	0
Static Water Elevation		#N/A	402.95	#N/A	403.25
Field Parameters					
Temperature, Field	°C	#N/A	19.14	#N/A	15.52
Dissolved Oxygen, Field	mg/L	#N/A	0.19	#N/A	4.92
Conductivity, Field	uS/cm	#N/A	1963.90	#N/A	509.89
ORP, Field	mV	#N/A	-106.60	#N/A	149.05
pH, Field	S.U.	#N/A	7.40	#N/A	6.26
Turbidity, Field	NTU	#N/A	3.46	#N/A	6.07
Appendix III Constituents					
Boron, Total	ug/L	23300	#N/A	34100	#N/A
Calcium, Total	ug/L	643000	#N/A	754000	#N/A
Chloride	mg/L	130	#N/A	208	#N/A
Fluoride	mg/L	0.25	#N/A	0.16	#N/A
Sulfate	mg/L	1450	#N/A	1590	#N/A
Total Dissolved Solids	mg/L	2690	#N/A	3000	#N/A
pH at 25 Degrees C	Std. Units	7.2	#N/A	7.3	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	7.7	#N/A	1.4	#N/A
Barium, Total	ug/L	28.5	#N/A	38.3	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	#N/A	<1	#N/A
Lead, Total	ug/L	<10	#N/A	<10	#N/A
Lithium, Total	ug/L	38.8	#N/A	<20	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	1580	#N/A	1430	#N/A
Molybdenum, Dissolved	ug/L	1560	#N/A	1420	#N/A
Radium-226	pCi/L	<-0.235	#N/A	<0.236	#N/A
Radium-228	pCi/L	0.794	#N/A	1.29	#N/A
Selenium, Total	ug/L	<1	#N/A	<1	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	<0.794	#N/A	1.53	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	50.2	#N/A	61.4	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	50.2	#N/A	61.4	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Aluminum, Total	ug/L	27.8	#N/A	12.5	#N/A
Boron, Dissolved	ug/L	22900	#N/A	33700	#N/A
Bromide	mg/L	6.5	#N/A	15.8	#N/A
Dissolved Organic Carbon	mg/L	2.9	#N/A	2.0	#N/A
Iron, Total	ug/L	4170	#N/A	5730	#N/A
Iron, Ferrous	mg/L	<0.2	#N/A	1.5	#N/A
Iron, Dissolved	ug/L	4070	#N/A	5740	#N/A
Magnesium, Total	ug/L	10800	#N/A	14300	#N/A
Magnesium, Dissolved	ug/L	11000	#N/A	14700	#N/A
Manganese, Total	ug/L	1840	#N/A	1540	#N/A
Manganese, Dissolved	ug/L	1830	#N/A	1530	#N/A
Nitrogen, Nitrate	mg/L	<0.1	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	<0.1	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	0.44	#N/A	0.48	#N/A
Potassium, Total	ug/L	31700	#N/A	33800	#N/A
Potassium, Dissolved	ug/L	30700	#N/A	32700	#N/A
Silica, Total	ug/L	9640	#N/A	14200	#N/A
Sodium, Total	ug/L	39700	#N/A	45800	#N/A
Sulfide	mg/L	<0.1	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	2	#N/A	4.1	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	AP-10B (P4R3)	AP-10I (Field Reading)	AP-10I (P4R3)	AP-10A (Field Reading)
Sample Date		11/14/2023	11/1/2023	11/14/2023	11/1/2023
Pace Lab ID		50359710001	0	50359710002	0
Static Water Elevation		#N/A	403.16	#N/A	402.56
Field Parameters					
Temperature, Field	°C	#N/A	15.39	#N/A	15.23
Dissolved Oxygen, Field	mg/L	#N/A	0.00	#N/A	0.00
Conductivity, Field	uS/cm	#N/A	1385.82	#N/A	2128.35
ORP, Field	mV	#N/A	-88.15	#N/A	-113.45
pH, Field	S.U.	#N/A	6.37	#N/A	6.87
Turbidity, Field	NTU	#N/A	9.97	#N/A	0.00
Appendix III Constituents					
Boron, Total	ug/L	788	#N/A	12100	#N/A
Calcium, Total	ug/L	104000	#N/A	342000	#N/A
Chloride	mg/L	5.6	#N/A	103	#N/A
Fluoride	mg/L	0.12	#N/A	0.14	#N/A
Sulfate	mg/L	44.2	#N/A	769	#N/A
Total Dissolved Solids	mg/L	410	#N/A	1500	#N/A
pH at 25 Degrees C	Std. Units	7.3	#N/A	7	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	<1	#N/A	<1	#N/A
Barium, Total	ug/L	77.3	#N/A	76.7	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	#N/A	<1	#N/A
Lead, Total	ug/L	<10	#N/A	<10	#N/A
Lithium, Total	ug/L	<20	#N/A	20.5	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	<10	#N/A	113	#N/A
Molybdenum, Dissolved	ug/L	<10	#N/A	110	#N/A
Radium-226	pCi/L	<0.122	#N/A	0.626	#N/A
Radium-228	pCi/L	0.849	#N/A	1.05	#N/A
Selenium, Total	ug/L	1.7	#N/A	<1	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	0.971	#N/A	1.68	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	332	#N/A	261	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	332	#N/A	261	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Aluminum, Total	ug/L	29.8	#N/A	48.9	#N/A
Boron, Dissolved	ug/L	778	#N/A	11700	#N/A
Bromide	mg/L	0.067	#N/A	2.5	#N/A
Dissolved Organic Carbon	mg/L	<1	#N/A	3.6	#N/A
Iron, Total	ug/L	145	#N/A	5670	#N/A
Iron, Ferrous	mg/L	<0.2	#N/A	1.8	#N/A
Iron, Dissolved	ug/L	<100	#N/A	5210	#N/A
Magnesium, Total	ug/L	27200	#N/A	47500	#N/A
Magnesium, Dissolved	ug/L	26500	#N/A	45300	#N/A
Manganese, Total	ug/L	3.7	#N/A	2800	#N/A
Manganese, Dissolved	ug/L	<1	#N/A	2860	#N/A
Nitrogen, Nitrate	mg/L	4.4	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	<0.1	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	<0.15	#N/A	0.42	#N/A
Potassium, Total	ug/L	1050	#N/A	9540	#N/A
Potassium, Dissolved	ug/L	1080	#N/A	9350	#N/A
Silica, Total	ug/L	11200	#N/A	13500	#N/A
Sodium, Total	ug/L	17700	#N/A	53400	#N/A
Sulfide	mg/L	<0.1	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	<1	#N/A	1.5	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	AP-10A (P4R3)	AP-11B (Field Reading)	AP-11B (P4R3)	AP-11I (Field Reading)
Sample Date		11/15/2023	11/1/2023	11/9/2023	11/1/2023
Pace Lab ID		50359839001	0	50359425007	0
Static Water Elevation		#N/A	403.61	#N/A	403.58
Field Parameters					
Temperature, Field	°C	#N/A	26.06	#N/A	25.35
Dissolved Oxygen, Field	mg/L	#N/A	0.00	#N/A	0.00
Conductivity, Field	uS/cm	#N/A	739.01	#N/A	852.20
ORP, Field	mV	#N/A	10.91	#N/A	-111.82
pH, Field	S.U.	#N/A	6.43	#N/A	6.64
Turbidity, Field	NTU	#N/A	7.59	#N/A	16.05
Appendix III Constituents					
Boron, Total	ug/L	27900	#N/A	861	#N/A
Calcium, Total	ug/L	649000	#N/A	160000	#N/A
Chloride	mg/L	163	#N/A	5	#N/A
Fluoride	mg/L	<0.1	#N/A	0.11	#N/A
Sulfate	mg/L	1650	#N/A	359	#N/A
Total Dissolved Solids	mg/L	2660	#N/A	794	#N/A
pH at 25 Degrees C	Std. Units	7.7	#N/A	7.5	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	<1	#N/A	<1	#N/A
Barium, Total	ug/L	30.2	#N/A	17.3	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	#N/A	1.1	#N/A
Lead, Total	ug/L	<10	#N/A	<10	#N/A
Lithium, Total	ug/L	<20	#N/A	<20	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	569	#N/A	<10	#N/A
Molybdenum, Dissolved	ug/L	554	#N/A	<10	#N/A
Radium-226	pCi/L	<0.118	#N/A	<0.184	#N/A
Radium-228	pCi/L	1.26	#N/A	0.779	#N/A
Selenium, Total	ug/L	<1	#N/A	<1	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	1.38	#N/A	0.963	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	164	#N/A	280	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	164	#N/A	280	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Aluminum, Total	ug/L	<10	#N/A	58	#N/A
Boron, Dissolved	ug/L	27100	#N/A	838	#N/A
Bromide	mg/L	4.1	#N/A	<0.05	#N/A
Dissolved Organic Carbon	mg/L	4.4	#N/A	2.3	#N/A
Iron, Total	ug/L	7940	#N/A	874	#N/A
Iron, Ferrous	mg/L	0.56	#N/A	0.3	#N/A
Iron, Dissolved	ug/L	7640	#N/A	764	#N/A
Magnesium, Total	ug/L	10400	#N/A	54100	#N/A
Magnesium, Dissolved	ug/L	10100	#N/A	52100	#N/A
Manganese, Total	ug/L	2540	#N/A	546	#N/A
Manganese, Dissolved	ug/L	2620	#N/A	597	#N/A
Nitrogen, Nitrate	mg/L	<0.1	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	<0.1	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	0.24	#N/A	0.25	#N/A
Potassium, Total	ug/L	15100	#N/A	<1000	#N/A
Potassium, Dissolved	ug/L	14800	#N/A	<1000	#N/A
Silica, Total	ug/L	11400	#N/A	19600	#N/A
Sodium, Total	ug/L	46100	#N/A	9950	#N/A
Sulfide	mg/L	<0.1	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	2.7	#N/A	1	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	AP-11I (P4R3)	AP-11A (Field Reading)	AP-11A (P4R3)	MW-2R (Field Reading)
Sample Date		11/9/2023	11/1/2023	11/9/2023	11/8/2023
Pace Lab ID		50359425006	0	50359425005	0
Static Water Elevation		#N/A	402.86	#N/A	435.6
Field Parameters					
Temperature, Field	°C	#N/A	24.88	#N/A	17.71
Dissolved Oxygen, Field	mg/L	#N/A	0.03	#N/A	0.64
Conductivity, Field	uS/cm	#N/A	1001.39	#N/A	2106.65
ORP, Field	mV	#N/A	-102.01	#N/A	-79.74
pH, Field	S.U.	#N/A	6.71	#N/A	6.96
Turbidity, Field	NTU	#N/A	6.86	#N/A	85.95
Appendix III Constituents					
Boron, Total	ug/L	1130	#N/A	607	#N/A
Calcium, Total	ug/L	181000	#N/A	223000	#N/A
Chloride	mg/L	8.2	#N/A	6.9	#N/A
Fluoride	mg/L	<0.1	#N/A	<0.1	#N/A
Sulfate	mg/L	368	#N/A	535	#N/A
Total Dissolved Solids	mg/L	872	#N/A	1120	#N/A
pH at 25 Degrees C	Std. Units	7.6	#N/A	7.6	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	1.7	#N/A	<1	#N/A
Barium, Total	ug/L	62.6	#N/A	29	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	#N/A	<1	#N/A
Lead, Total	ug/L	<10	#N/A	<10	#N/A
Lithium, Total	ug/L	<20	#N/A	21.8	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	<10	#N/A	<10	#N/A
Molybdenum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Radium-226	pCi/L	<-0.0795	#N/A	1.46	#N/A
Radium-228	pCi/L	<0.0917	#N/A	<-0.0711	#N/A
Selenium, Total	ug/L	<1	#N/A	<1	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	<0.0917	#N/A	1.46	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	311	#N/A	303	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	311	#N/A	303	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Aluminum, Total	ug/L	131	#N/A	35.8	#N/A
Boron, Dissolved	ug/L	1080	#N/A	583	#N/A
Bromide	mg/L	0.074	#N/A	0.067	#N/A
Dissolved Organic Carbon	mg/L	3.0	#N/A	2.8	#N/A
Iron, Total	ug/L	22300	#N/A	12900	#N/A
Iron, Ferrous	mg/L	5.7	#N/A	3	#N/A
Iron, Dissolved	ug/L	20800	#N/A	12000	#N/A
Magnesium, Total	ug/L	57300	#N/A	73500	#N/A
Magnesium, Dissolved	ug/L	53900	#N/A	69400	#N/A
Manganese, Total	ug/L	6150	#N/A	702	#N/A
Manganese, Dissolved	ug/L	5980	#N/A	694	#N/A
Nitrogen, Nitrate	mg/L	<0.1	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	<0.1	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	1.6	#N/A	1.3	#N/A
Potassium, Total	ug/L	<1000	#N/A	1480	#N/A
Potassium, Dissolved	ug/L	<1000	#N/A	1400	#N/A
Silica, Total	ug/L	29000	#N/A	28300	#N/A
Sodium, Total	ug/L	8520	#N/A	13400	#N/A
Sulfide	mg/L	<0.1	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	1.7	#N/A	1.2	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-2R (P1R1)	MW-2R (P2R1)	MW-2R (P3R1)	MW-3 (Field Reading)
Sample Date		11/8/2023	11/8/2023	11/8/2023	11/8/2023
Pace Lab ID		50359169005	50359170007	50359167005	0
Static Water Elevation		#N/A	#N/A	#N/A	440.13
Field Parameters					
Temperature, Field	°C	#N/A	#N/A	#N/A	17.20
Dissolved Oxygen, Field	mg/L	#N/A	#N/A	#N/A	0.22
Conductivity, Field	uS/cm	#N/A	#N/A	#N/A	1834.29
ORP, Field	mV	#N/A	#N/A	#N/A	-4.30
pH, Field	S.U.	#N/A	#N/A	#N/A	7.44
Turbidity, Field	NTU	#N/A	#N/A	#N/A	55.39
Appendix III Constituents					
Boron, Total	ug/L	1970	1900	#N/A	#N/A
Calcium, Total	ug/L	463000	460000	#N/A	#N/A
Chloride	mg/L	63.4	70.3	#N/A	#N/A
Fluoride	mg/L	<0.1	<0.1	#N/A	#N/A
Sulfate	mg/L	1390	1780	#N/A	#N/A
Total Dissolved Solids	mg/L	2450	2510	2440	#N/A
pH at 25 Degrees C	Std. Units	#N/A	7.4	#N/A	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	<1	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	11.8	7.5	#N/A	#N/A
Barium, Total	ug/L	51.8	45.2	#N/A	#N/A
Beryllium, Total	ug/L	<0.2	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	#N/A	#N/A
Chromium, Total	ug/L	<10	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	2.3	2.7	#N/A	#N/A
Lead, Total	ug/L	<10	<10	#N/A	#N/A
Lithium, Total	ug/L	718	638	#N/A	#N/A
Mercury	ug/L	<0.2	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	10.9	10.6	#N/A	#N/A
Molybdenum, Dissolved	ug/L	#N/A	#N/A	<10	#N/A
Radium-226	pCi/L	0.334	<0.0509	#N/A	#N/A
Radium-228	pCi/L	0.694	1.33	#N/A	#N/A
Selenium, Total	ug/L	<1	<1	#N/A	#N/A
Thallium, Total	ug/L	<1	<1	#N/A	#N/A
Total Radium	pCi/L	1.03	1.38	#N/A	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	#N/A	#N/A	170	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	#N/A	#N/A	170	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	#N/A	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	#N/A	#N/A	23.3	#N/A
Aluminum, Total	ug/L	#N/A	#N/A	5980	#N/A
Boron, Dissolved	ug/L	#N/A	#N/A	1990	#N/A
Bromide	mg/L	#N/A	#N/A	0.7	#N/A
Dissolved Organic Carbon	mg/L	#N/A	#N/A	4.6	#N/A
Iron, Total	ug/L	13000	#N/A	23200	#N/A
Iron, Ferrous	mg/L	#N/A	#N/A	<0.2	#N/A
Iron, Dissolved	ug/L	#N/A	#N/A	9890	#N/A
Magnesium, Total	ug/L	#N/A	#N/A	56100	#N/A
Magnesium, Dissolved	ug/L	#N/A	#N/A	60000	#N/A
Manganese, Total	ug/L	5480	#N/A	5550	#N/A
Manganese, Dissolved	ug/L	#N/A	#N/A	5840	#N/A
Nitrogen, Nitrate	mg/L	#N/A	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	#N/A	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	#N/A	#N/A	1.7	#N/A
Potassium, Total	ug/L	#N/A	#N/A	112000	#N/A
Potassium, Dissolved	ug/L	#N/A	#N/A	99600	#N/A
Silica, Total	ug/L	#N/A	#N/A	33700	#N/A
Sodium, Total	ug/L	#N/A	#N/A	88500	#N/A
Sulfide	mg/L	#N/A	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	#N/A	#N/A	<4	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-3 (P1R1)	MW-3 (P2R1)	MW-3 (P3R1)	MW-4C (Field Reading)
Sample Date		11/8/2023	11/8/2023	11/8/2023	11/8/2023
Pace Lab ID		50359169003	50359170005	50359167003	0
Static Water Elevation		#N/A	#N/A	#N/A	448.06
Field Parameters					
Temperature, Field	°C	#N/A	#N/A	#N/A	16.29
Dissolved Oxygen, Field	mg/L	#N/A	#N/A	#N/A	0.20
Conductivity, Field	uS/cm	#N/A	#N/A	#N/A	2200.58
ORP, Field	mV	#N/A	#N/A	#N/A	90.85
pH, Field	S.U.	#N/A	#N/A	#N/A	6.95
Turbidity, Field	NTU	#N/A	#N/A	#N/A	0.05
Appendix III Constituents					
Boron, Total	ug/L	756	758	#N/A	#N/A
Calcium, Total	ug/L	286000	286000	#N/A	#N/A
Chloride	mg/L	69.4	67.5	#N/A	#N/A
Fluoride	mg/L	<0.1	<0.1	#N/A	#N/A
Sulfate	mg/L	1010	1120	#N/A	#N/A
Total Dissolved Solids	mg/L	1860	1890	1910	#N/A
pH at 25 Degrees C	Std. Units	#N/A	7.2	#N/A	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	<1	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	63.1	59.3	#N/A	#N/A
Barium, Total	ug/L	61.7	59.1	#N/A	#N/A
Beryllium, Total	ug/L	<0.2	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	#N/A	#N/A
Chromium, Total	ug/L	<10	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	2.1	2.2	#N/A	#N/A
Lead, Total	ug/L	<10	<10	#N/A	#N/A
Lithium, Total	ug/L	1590	1640	#N/A	#N/A
Mercury	ug/L	<0.2	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	245	242	#N/A	#N/A
Molybdenum, Dissolved	ug/L	#N/A	#N/A	252	#N/A
Radium-226	pCi/L	1.96	1.25	#N/A	#N/A
Radium-228	pCi/L	0.457	0.855	#N/A	#N/A
Selenium, Total	ug/L	<1	<1	#N/A	#N/A
Thallium, Total	ug/L	<1	<1	#N/A	#N/A
Total Radium	pCi/L	2.42	2.11	#N/A	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	#N/A	#N/A	135	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	#N/A	#N/A	135	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	#N/A	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	#N/A	#N/A	<10	#N/A
Aluminum, Total	ug/L	#N/A	#N/A	<10	#N/A
Boron, Dissolved	ug/L	#N/A	#N/A	801	#N/A
Bromide	mg/L	#N/A	#N/A	0.69	#N/A
Dissolved Organic Carbon	mg/L	#N/A	#N/A	1.8	#N/A
Iron, Total	ug/L	<100	#N/A	<100	#N/A
Iron, Ferrous	mg/L	#N/A	#N/A	<0.2	#N/A
Iron, Dissolved	ug/L	#N/A	#N/A	<100	#N/A
Magnesium, Total	ug/L	#N/A	#N/A	15400	#N/A
Magnesium, Dissolved	ug/L	#N/A	#N/A	15800	#N/A
Manganese, Total	ug/L	1950	#N/A	2080	#N/A
Manganese, Dissolved	ug/L	#N/A	#N/A	2130	#N/A
Nitrogen, Nitrate	mg/L	#N/A	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	#N/A	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	#N/A	#N/A	0.29	#N/A
Potassium, Total	ug/L	#N/A	#N/A	206000	#N/A
Potassium, Dissolved	ug/L	#N/A	#N/A	237000	#N/A
Silica, Total	ug/L	#N/A	#N/A	13300	#N/A
Sodium, Total	ug/L	#N/A	#N/A	85900	#N/A
Sulfide	mg/L	#N/A	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	#N/A	#N/A	1.1	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-4C (P1R1)	MW-4C (P2R1)	MW-4C (P3R1)	MW-19B (Field Reading)
Sample Date		11/8/2023	11/8/2023	11/8/2023	11/1/2023
Pace Lab ID		50359169001	50359170001	50359167001	0
Static Water Elevation		#N/A	#N/A	#N/A	#VALUE!
Field Parameters					
Temperature, Field	°C	#N/A	#N/A	#N/A	#N/A
Dissolved Oxygen, Field	mg/L	#N/A	#N/A	#N/A	#N/A
Conductivity, Field	uS/cm	#N/A	#N/A	#N/A	#N/A
ORP, Field	mV	#N/A	#N/A	#N/A	#N/A
pH, Field	S.U.	#N/A	#N/A	#N/A	#N/A
Turbidity, Field	NTU	#N/A	#N/A	#N/A	#N/A
Appendix III Constituents					
Boron, Total	ug/L	3890	4010	#N/A	#N/A
Calcium, Total	ug/L	586000	593000	#N/A	#N/A
Chloride	mg/L	40.7	37.8	#N/A	#N/A
Fluoride	mg/L	0.18	0.16	#N/A	#N/A
Sulfate	mg/L	1430	1550	#N/A	#N/A
Total Dissolved Solids	mg/L	2630	2640	2650	#N/A
pH at 25 Degrees C	Std. Units	#N/A	7.1	#N/A	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	<1	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	<1	<1	#N/A	#N/A
Barium, Total	ug/L	29.8	28.6	#N/A	#N/A
Beryllium, Total	ug/L	<0.2	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	#N/A	#N/A
Chromium, Total	ug/L	<10	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	1	1.1	#N/A	#N/A
Lead, Total	ug/L	<10	<10	#N/A	#N/A
Lithium, Total	ug/L	331	351	#N/A	#N/A
Mercury	ug/L	<0.2	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	<10	<10	#N/A	#N/A
Molybdenum, Dissolved	ug/L	#N/A	#N/A	<10	#N/A
Radium-226	pCi/L	<-0.32	<0.0853	#N/A	#N/A
Radium-228	pCi/L	0.373	1.48	#N/A	#N/A
Selenium, Total	ug/L	<1	<1	#N/A	#N/A
Thallium, Total	ug/L	<1	<1	#N/A	#N/A
Total Radium	pCi/L	<0.373	1.57	#N/A	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	#N/A	#N/A	434	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	#N/A	#N/A	434	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	#N/A	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	#N/A	#N/A	<10	#N/A
Aluminum, Total	ug/L	#N/A	#N/A	<10	#N/A
Boron, Dissolved	ug/L	#N/A	#N/A	4370	#N/A
Bromide	mg/L	#N/A	#N/A	0.5	#N/A
Dissolved Organic Carbon	mg/L	#N/A	#N/A	4.4	#N/A
Iron, Total	ug/L	<100	#N/A	<100	#N/A
Iron, Ferrous	mg/L	#N/A	#N/A	<0.2	#N/A
Iron, Dissolved	ug/L	#N/A	#N/A	<100	#N/A
Magnesium, Total	ug/L	#N/A	#N/A	53100	#N/A
Magnesium, Dissolved	ug/L	#N/A	#N/A	53900	#N/A
Manganese, Total	ug/L	2190	#N/A	2460	#N/A
Manganese, Dissolved	ug/L	#N/A	#N/A	2490	#N/A
Nitrogen, Nitrate	mg/L	#N/A	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	#N/A	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	#N/A	#N/A	<0.15	#N/A
Potassium, Total	ug/L	#N/A	#N/A	60200	#N/A
Potassium, Dissolved	ug/L	#N/A	#N/A	63200	#N/A
Silica, Total	ug/L	#N/A	#N/A	20000	#N/A
Sodium, Total	ug/L	#N/A	#N/A	79300	#N/A
Sulfide	mg/L	#N/A	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	#N/A	#N/A	2.6	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-19I (Field Reading)	MW-19I (P4R3)	MW-19A (Field Reading)	MW-19A (P4R3)
Sample Date		11/1/2023	11/2/2023	11/1/2023	11/1/2023
Pace Lab ID		0	50358454003	0	50358240001
Static Water Elevation		402.31	#N/A	402.34	#N/A
Field Parameters					
Temperature, Field	°C	14.20	#N/A	12.60	#N/A
Dissolved Oxygen, Field	mg/L	0.05	#N/A	0.04	#N/A
Conductivity, Field	uS/cm	423.04	#N/A	2216.65	#N/A
ORP, Field	mV	59.22	#N/A	-161.77	#N/A
pH, Field	S.U.	7.03	#N/A	6.58	#N/A
Turbidity, Field	NTU	197.06	#N/A	0.00	#N/A
Appendix III Constituents					
Boron, Total	ug/L	#N/A	656	#N/A	23900
Calcium, Total	ug/L	#N/A	113000	#N/A	573000
Chloride	mg/L	#N/A	10	#N/A	114
Fluoride	mg/L	#N/A	<0.1	#N/A	<0.1
Sulfate	mg/L	#N/A	46.1	#N/A	1260
Total Dissolved Solids	mg/L	#N/A	422	#N/A	2240
pH at 25 Degrees C	Std. Units	#N/A	7.6	#N/A	7.2
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	#N/A	<1	#N/A	<1
Barium, Total	ug/L	#N/A	62.2	#N/A	32.7
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	#N/A	<2	#N/A	<2
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	#N/A	1.6	#N/A	<1
Lead, Total	ug/L	#N/A	<10	#N/A	<10
Lithium, Total	ug/L	#N/A	<20	#N/A	<20
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	#N/A	<10	#N/A	669
Molybdenum, Dissolved	ug/L	#N/A	<10	#N/A	729
Radium-226	pCi/L	#N/A	<-0.392	#N/A	<0.365
Radium-228	pCi/L	#N/A	0.979	#N/A	1.27
Selenium, Total	ug/L	#N/A	<1	#N/A	<1
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	#N/A	0.979	#N/A	1.64
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	#N/A	321	#N/A	127
Alkalinity,Bicarbonate (CaCO3)	mg/L	#N/A	307	#N/A	127
Alkalinity,Carbonate (CaCO3)	mg/L	#N/A	14.4	#N/A	<10
Aluminum, Dissolved	ug/L	#N/A	<10	#N/A	<10
Aluminum, Total	ug/L	#N/A	<10	#N/A	<10
Boron, Dissolved	ug/L	#N/A	654	#N/A	23900
Bromide	mg/L	#N/A	0.058	#N/A	0.8
Dissolved Organic Carbon	mg/L	#N/A	2.0	#N/A	2.2
Iron, Total	ug/L	#N/A	206	#N/A	9040
Iron, Ferrous	mg/L	#N/A	<0.2	#N/A	0.51
Iron, Dissolved	ug/L	#N/A	<100	#N/A	8610
Magnesium, Total	ug/L	#N/A	26200	#N/A	30700
Magnesium, Dissolved	ug/L	#N/A	26000	#N/A	27100
Manganese, Total	ug/L	#N/A	1920	#N/A	1830
Manganese, Dissolved	ug/L	#N/A	1850	#N/A	1880
Nitrogen, Nitrate	mg/L	#N/A	2.6	#N/A	<0.1
Nitrogen, Nitrite	mg/L	#N/A	<0.1	#N/A	<0.1
Phosphate as P04	mg/L	#N/A	<0.15	#N/A	0.31
Potassium, Total	ug/L	#N/A	<1000	#N/A	13200
Potassium, Dissolved	ug/L	#N/A	<1000	#N/A	14000
Silica, Total	ug/L	#N/A	10500	#N/A	13100
Sodium, Total	ug/L	#N/A	7410	#N/A	44400
Sulfide	mg/L	#N/A	<0.1	#N/A	<0.1
Total Organic Carbon	mg/L	#N/A	<1	#N/A	2.2

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-20B (Field Reading)	MW-20I (Field Reading)	MW-20I (P4R3)	MW-20A (Field Reading)
Sample Date		11/1/2023	11/1/2023	11/2/2023	11/1/2023
Pace Lab ID		0	0	50358454002	0
Static Water Elevation		#VALUE!	402.58	#N/A	402.59
Field Parameters					
Temperature, Field	°C	#N/A	12.80	#N/A	13.26
Dissolved Oxygen, Field	mg/L	#N/A	0.14	#N/A	0.00
Conductivity, Field	uS/cm	#N/A	614.79	#N/A	1541.35
ORP, Field	mV	#N/A	-14.58	#N/A	-112.38
pH, Field	S.U.	#N/A	6.72	#N/A	6.82
Turbidity, Field	NTU	#N/A	2.10	#N/A	94.55
Appendix III Constituents					
Boron, Total	ug/L	#N/A	#N/A	339	#N/A
Calcium, Total	ug/L	#N/A	#N/A	115000	#N/A
Chloride	mg/L	#N/A	#N/A	9.4	#N/A
Fluoride	mg/L	#N/A	#N/A	<0.1	#N/A
Sulfate	mg/L	#N/A	#N/A	44.7	#N/A
Total Dissolved Solids	mg/L	#N/A	#N/A	424	#N/A
pH at 25 Degrees C	Std. Units	#N/A	#N/A	7.6	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	#N/A	#N/A	<1	#N/A
Barium, Total	ug/L	#N/A	#N/A	50.8	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	#N/A	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	#N/A	#N/A	1.4	#N/A
Lead, Total	ug/L	#N/A	#N/A	<10	#N/A
Lithium, Total	ug/L	#N/A	#N/A	<20	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	#N/A	#N/A	<10	#N/A
Molybdenum, Dissolved	ug/L	#N/A	#N/A	<10	#N/A
Radium-226	pCi/L	#N/A	#N/A	<-0.168	#N/A
Radium-228	pCi/L	#N/A	#N/A	0.339	#N/A
Selenium, Total	ug/L	#N/A	#N/A	1.8	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	#N/A	#N/A	<0.339	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	#N/A	#N/A	328	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	#N/A	#N/A	314	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	#N/A	#N/A	13.6	#N/A
Aluminum, Dissolved	ug/L	#N/A	#N/A	<10	#N/A
Aluminum, Total	ug/L	#N/A	#N/A	45.4	#N/A
Boron, Dissolved	ug/L	#N/A	#N/A	348	#N/A
Bromide	mg/L	#N/A	#N/A	0.051	#N/A
Dissolved Organic Carbon	mg/L	#N/A	#N/A	1.6	#N/A
Iron, Total	ug/L	#N/A	#N/A	157	#N/A
Iron, Ferrous	mg/L	#N/A	#N/A	<0.2	#N/A
Iron, Dissolved	ug/L	#N/A	#N/A	<100	#N/A
Magnesium, Total	ug/L	#N/A	#N/A	24600	#N/A
Magnesium, Dissolved	ug/L	#N/A	#N/A	25000	#N/A
Manganese, Total	ug/L	#N/A	#N/A	1770	#N/A
Manganese, Dissolved	ug/L	#N/A	#N/A	1770	#N/A
Nitrogen, Nitrate	mg/L	#N/A	#N/A	3.3	#N/A
Nitrogen, Nitrite	mg/L	#N/A	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	#N/A	#N/A	<0.15	#N/A
Potassium, Total	ug/L	#N/A	#N/A	<1000	#N/A
Potassium, Dissolved	ug/L	#N/A	#N/A	<1000	#N/A
Silica, Total	ug/L	#N/A	#N/A	11300	#N/A
Sodium, Total	ug/L	#N/A	#N/A	5260	#N/A
Sulfide	mg/L	#N/A	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	#N/A	#N/A	<1	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-20A (P4R3)	MW-21B (Field Reading)	MW-21B (P4R3)	MW-21I (Field Reading)
Sample Date		11/2/2023	11/1/2023	11/9/2023	11/1/2023
Pace Lab ID		50358454001	0	50359425003	0
Static Water Elevation		#N/A	402.87	#N/A	402.87
Field Parameters					
Temperature, Field	°C	#N/A	17.53	#N/A	16.78
Dissolved Oxygen, Field	mg/L	#N/A	0.42	#N/A	0.00
Conductivity, Field	uS/cm	#N/A	1143.91	#N/A	1037.94
ORP, Field	mV	#N/A	87.49	#N/A	-91.10
pH, Field	S.U.	#N/A	6.20	#N/A	6.55
Turbidity, Field	NTU	#N/A	8.44	#N/A	23.99
Appendix III Constituents					
Boron, Total	ug/L	13000	#N/A	825	#N/A
Calcium, Total	ug/L	364000	#N/A	258000	#N/A
Chloride	mg/L	48.7	#N/A	52.3	#N/A
Fluoride	mg/L	<0.1	#N/A	<0.1	#N/A
Sulfate	mg/L	585	#N/A	352	#N/A
Total Dissolved Solids	mg/L	1360	#N/A	1120	#N/A
pH at 25 Degrees C	Std. Units	7.6	#N/A	7.5	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	1.6	#N/A	<1	#N/A
Barium, Total	ug/L	30.1	#N/A	68.3	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	#N/A	2.1	#N/A
Lead, Total	ug/L	<10	#N/A	<10	#N/A
Lithium, Total	ug/L	<20	#N/A	<20	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	362	#N/A	<10	#N/A
Molybdenum, Dissolved	ug/L	347	#N/A	<10	#N/A
Radium-226	pCi/L	<0.107	#N/A	<0.192	#N/A
Radium-228	pCi/L	0.943	#N/A	1.02	#N/A
Selenium, Total	ug/L	<1	#N/A	<1	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	1.05	#N/A	1.21	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	225	#N/A	474	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	225	#N/A	474	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Aluminum, Total	ug/L	<10	#N/A	70.8	#N/A
Boron, Dissolved	ug/L	12400	#N/A	789	#N/A
Bromide	mg/L	0.73	#N/A	0.62	#N/A
Dissolved Organic Carbon	mg/L	3.7	#N/A	6.4	#N/A
Iron, Total	ug/L	7220	#N/A	753	#N/A
Iron, Ferrous	mg/L	0.34	#N/A	<0.2	#N/A
Iron, Dissolved	ug/L	6910	#N/A	<100	#N/A
Magnesium, Total	ug/L	29600	#N/A	57900	#N/A
Magnesium, Dissolved	ug/L	29300	#N/A	55300	#N/A
Manganese, Total	ug/L	1270	#N/A	1780	#N/A
Manganese, Dissolved	ug/L	1280	#N/A	1650	#N/A
Nitrogen, Nitrate	mg/L	<0.1	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	<0.1	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	0.35	#N/A	<0.15	#N/A
Potassium, Total	ug/L	5840	#N/A	1250	#N/A
Potassium, Dissolved	ug/L	5630	#N/A	1200	#N/A
Silica, Total	ug/L	13000	#N/A	17500	#N/A
Sodium, Total	ug/L	27100	#N/A	27500	#N/A
Sulfide	mg/L	<0.1	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	1.1	#N/A	1.5	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-21I (P4R3)	MW-21A (Field Reading)	MW-21A (P4R3)	MW-25B (Field Reading)
Sample Date		11/9/2023	11/1/2023	11/9/2023	11/1/2023
Pace Lab ID		50359425002	0	50359425001	0
Static Water Elevation		#N/A	402.81	#N/A	403.02
Field Parameters					
Temperature, Field	°C	#N/A	16.58	#N/A	16.28
Dissolved Oxygen, Field	mg/L	#N/A	0.04	#N/A	0.36
Conductivity, Field	uS/cm	#N/A	1773.34	#N/A	701.88
ORP, Field	mV	#N/A	-103.75	#N/A	57.73
pH, Field	S.U.	#N/A	6.81	#N/A	6.58
Turbidity, Field	NTU	#N/A	47.48	#N/A	4.89
Appendix III Constituents					
Boron, Total	ug/L	1900	#N/A	11000	#N/A
Calcium, Total	ug/L	238000	#N/A	497000	#N/A
Chloride	mg/L	69.2	#N/A	78.9	#N/A
Fluoride	mg/L	0.12	#N/A	0.19	#N/A
Sulfate	mg/L	390	#N/A	1460	#N/A
Total Dissolved Solids	mg/L	1070	#N/A	2150	#N/A
pH at 25 Degrees C	Std. Units	7.3	#N/A	7	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	<1	#N/A	2.1	#N/A
Barium, Total	ug/L	40.9	#N/A	31.1	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	#N/A	<1	#N/A
Lead, Total	ug/L	<10	#N/A	<10	#N/A
Lithium, Total	ug/L	21.3	#N/A	71.2	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	108	#N/A	165	#N/A
Molybdenum, Dissolved	ug/L	109	#N/A	165	#N/A
Radium-226	pCi/L	<0.192	#N/A	<0.219	#N/A
Radium-228	pCi/L	0.633	#N/A	0.779	#N/A
Selenium, Total	ug/L	<1	#N/A	<1	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	0.825	#N/A	0.998	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	339	#N/A	120	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	339	#N/A	120	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Aluminum, Total	ug/L	182	#N/A	204	#N/A
Boron, Dissolved	ug/L	1890	#N/A	10900	#N/A
Bromide	mg/L	0.42	#N/A	0.48	#N/A
Dissolved Organic Carbon	mg/L	4.8	#N/A	4.4	#N/A
Iron, Total	ug/L	5710	#N/A	7050	#N/A
Iron, Ferrous	mg/L	0.3	#N/A	0.34	#N/A
Iron, Dissolved	ug/L	5040	#N/A	5680	#N/A
Magnesium, Total	ug/L	36800	#N/A	40900	#N/A
Magnesium, Dissolved	ug/L	35300	#N/A	39500	#N/A
Manganese, Total	ug/L	1230	#N/A	826	#N/A
Manganese, Dissolved	ug/L	1180	#N/A	795	#N/A
Nitrogen, Nitrate	mg/L	<0.1	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	<0.1	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	1.2	#N/A	0.95	#N/A
Potassium, Total	ug/L	8750	#N/A	17400	#N/A
Potassium, Dissolved	ug/L	8810	#N/A	17500	#N/A
Silica, Total	ug/L	14900	#N/A	14100	#N/A
Sodium, Total	ug/L	40700	#N/A	59000	#N/A
Sulfide	mg/L	<0.1	#N/A	0.026	#N/A
Total Organic Carbon	mg/L	1.8	#N/A	1.8	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-25B (P4R3)	MW-25I (Field Reading)	MW-25I (P4R3)	MW-25A (Field Reading)
Sample Date		11/8/2023	11/1/2023	11/7/2023	11/1/2023
Pace Lab ID		50359160001	0	50359028002	0
Static Water Elevation		#N/A	402.99	#N/A	403.05
Field Parameters					
Temperature, Field	°C	#N/A	15.74	#N/A	16.88
Dissolved Oxygen, Field	mg/L	#N/A	0.00	#N/A	0.34
Conductivity, Field	uS/cm	#N/A	1844.84	#N/A	1907.26
ORP, Field	mV	#N/A	-83.56	#N/A	-89.66
pH, Field	S.U.	#N/A	6.45	#N/A	6.06
Turbidity, Field	NTU	#N/A	10.40	#N/A	8.24
Appendix III Constituents					
Boron, Total	ug/L	1110	#N/A	18900	#N/A
Calcium, Total	ug/L	135000	#N/A	590000	#N/A
Chloride	mg/L	7.4	#N/A	59.8	#N/A
Fluoride	mg/L	0.1	#N/A	<0.1	#N/A
Sulfate	mg/L	91.7	#N/A	1340	#N/A
Total Dissolved Solids	mg/L	487	#N/A	2430	#N/A
pH at 25 Degrees C	Std. Units	7.6	#N/A	7.2	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	<1	#N/A	<1	#N/A
Barium, Total	ug/L	42.4	#N/A	22.5	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	#N/A	<1	#N/A
Lead, Total	ug/L	<10	#N/A	<10	#N/A
Lithium, Total	ug/L	<20	#N/A	<20	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	<10	#N/A	34.9	#N/A
Molybdenum, Dissolved	ug/L	<10	#N/A	33	#N/A
Radium-226	pCi/L	<0.185	#N/A	<0.255	#N/A
Radium-228	pCi/L	<0.306	#N/A	<0.178	#N/A
Selenium, Total	ug/L	1.2	#N/A	<1	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	<0.491	#N/A	<0.433	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	342	#N/A	128	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	335	#N/A	128	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Aluminum, Total	ug/L	88.7	#N/A	23.5	#N/A
Boron, Dissolved	ug/L	1200	#N/A	18400	#N/A
Bromide	mg/L	0.071	#N/A	0.56	#N/A
Dissolved Organic Carbon	mg/L	2.4	#N/A	2.0	#N/A
Iron, Total	ug/L	359	#N/A	10200	#N/A
Iron, Ferrous	mg/L	<0.2	#N/A	2.4	#N/A
Iron, Dissolved	ug/L	131	#N/A	9900	#N/A
Magnesium, Total	ug/L	27800	#N/A	45700	#N/A
Magnesium, Dissolved	ug/L	29000	#N/A	45800	#N/A
Manganese, Total	ug/L	368	#N/A	1500	#N/A
Manganese, Dissolved	ug/L	302	#N/A	1490	#N/A
Nitrogen, Nitrate	mg/L	2.7	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	<0.1	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	0.29	#N/A	0.41	#N/A
Potassium, Total	ug/L	<1000	#N/A	3130	#N/A
Potassium, Dissolved	ug/L	<1000	#N/A	3060	#N/A
Silica, Total	ug/L	14200	#N/A	12300	#N/A
Sodium, Total	ug/L	5290	#N/A	25500	#N/A
Sulfide	mg/L	<0.1	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	1.5	#N/A	1.2	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-25A (P4R3)	MW-26B (Field Reading)	MW-26B (P4R3)	MW-26I (Field Reading)
Sample Date		11/7/2023	11/1/2023	11/8/2023	11/1/2023
Pace Lab ID		50359028001	0	50359162004	0
Static Water Elevation		#N/A	402.45	#N/A	402.43
Field Parameters					
Temperature, Field	°C	#N/A	24.58	#N/A	24.02
Dissolved Oxygen, Field	mg/L	#N/A	0.02	#N/A	0.02
Conductivity, Field	uS/cm	#N/A	899.18	#N/A	1089.44
ORP, Field	mV	#N/A	60.09	#N/A	-92.25
pH, Field	S.U.	#N/A	6.60	#N/A	6.79
Turbidity, Field	NTU	#N/A	5.36	#N/A	5.92
Appendix III Constituents					
Boron, Total	ug/L	13200	#N/A	2120	#N/A
Calcium, Total	ug/L	501000	#N/A	175000	#N/A
Chloride	mg/L	52.2	#N/A	35.9	#N/A
Fluoride	mg/L	<0.1	#N/A	<0.1	#N/A
Sulfate	mg/L	1350	#N/A	239	#N/A
Total Dissolved Solids	mg/L	2690	#N/A	803	#N/A
pH at 25 Degrees C	Std. Units	7.3	#N/A	7.4	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	1	#N/A	<1	#N/A
Barium, Total	ug/L	18.2	#N/A	21.3	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	#N/A	1.8	#N/A
Lead, Total	ug/L	<10	#N/A	<10	#N/A
Lithium, Total	ug/L	<20	#N/A	<20	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	15.6	#N/A	<10	#N/A
Molybdenum, Dissolved	ug/L	14.8	#N/A	<10	#N/A
Radium-226	pCi/L	<0.177	#N/A	<0.189	#N/A
Radium-228	pCi/L	0.795	#N/A	<0.175	#N/A
Selenium, Total	ug/L	<1	#N/A	<1	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	0.972	#N/A	<0.364	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	161	#N/A	415	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	161	#N/A	415	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Aluminum, Total	ug/L	62.5	#N/A	<10	#N/A
Boron, Dissolved	ug/L	13200	#N/A	2230	#N/A
Bromide	mg/L	0.38	#N/A	0.54	#N/A
Dissolved Organic Carbon	mg/L	4.3	#N/A	2.4	#N/A
Iron, Total	ug/L	14400	#N/A	<100	#N/A
Iron, Ferrous	mg/L	1.1	#N/A	<0.2	#N/A
Iron, Dissolved	ug/L	14000	#N/A	<100	#N/A
Magnesium, Total	ug/L	124000	#N/A	41100	#N/A
Magnesium, Dissolved	ug/L	127000	#N/A	42900	#N/A
Manganese, Total	ug/L	1720	#N/A	1610	#N/A
Manganese, Dissolved	ug/L	1670	#N/A	1520	#N/A
Nitrogen, Nitrate	mg/L	<0.1	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	<0.1	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	0.27	#N/A	<0.15	#N/A
Potassium, Total	ug/L	2040	#N/A	3960	#N/A
Potassium, Dissolved	ug/L	2000	#N/A	4320	#N/A
Silica, Total	ug/L	15400	#N/A	12900	#N/A
Sodium, Total	ug/L	18200	#N/A	32700	#N/A
Sulfide	mg/L	<0.1	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	1.2	#N/A	2.1	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-26I (P4R3)	MW-26A (Field Reading)	MW-26A (P4R3)	MW-27B (Field Reading)
Sample Date		11/8/2023	11/1/2023	11/8/2023	11/1/2023
Pace Lab ID		50359162005	0	50359162007	0
Static Water Elevation		#N/A	402.42	#N/A	402.22
Field Parameters					
Temperature, Field	°C	#N/A	15.24	#N/A	19.27
Dissolved Oxygen, Field	mg/L	#N/A	0.01	#N/A	0.05
Conductivity, Field	uS/cm	#N/A	1369.09	#N/A	1771.21
ORP, Field	mV	#N/A	-92.38	#N/A	-154.28
pH, Field	S.U.	#N/A	7.16	#N/A	6.54
Turbidity, Field	NTU	#N/A	29.16	#N/A	0.08
Appendix III Constituents					
Boron, Total	ug/L	6430	#N/A	21900	#N/A
Calcium, Total	ug/L	244000	#N/A	590000	#N/A
Chloride	mg/L	53.7	#N/A	111	#N/A
Fluoride	mg/L	<0.1	#N/A	<0.1	#N/A
Sulfate	mg/L	462	#N/A	1250	#N/A
Total Dissolved Solids	mg/L	1060	#N/A	2180	#N/A
pH at 25 Degrees C	Std. Units	7.4	#N/A	7	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	1.6	#N/A	1.5	#N/A
Barium, Total	ug/L	30.9	#N/A	30	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	#N/A	<1	#N/A
Lead, Total	ug/L	<10	#N/A	<10	#N/A
Lithium, Total	ug/L	29.4	#N/A	<20	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	219	#N/A	1510	#N/A
Molybdenum, Dissolved	ug/L	189	#N/A	1420	#N/A
Radium-226	pCi/L	<-0.0721	#N/A	<0.313	#N/A
Radium-228	pCi/L	<0.326	#N/A	1.01	#N/A
Selenium, Total	ug/L	<1	#N/A	<1	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	<0.326	#N/A	1.32	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	332	#N/A	105	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	332	#N/A	105	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Aluminum, Total	ug/L	30.1	#N/A	35.9	#N/A
Boron, Dissolved	ug/L	5980	#N/A	21800	#N/A
Bromide	mg/L	1	#N/A	0.99	#N/A
Dissolved Organic Carbon	mg/L	3.3	#N/A	2.6	#N/A
Iron, Total	ug/L	4160	#N/A	7760	#N/A
Iron, Ferrous	mg/L	<0.2	#N/A	1.8	#N/A
Iron, Dissolved	ug/L	3480	#N/A	7600	#N/A
Magnesium, Total	ug/L	38900	#N/A	21800	#N/A
Magnesium, Dissolved	ug/L	39400	#N/A	22400	#N/A
Manganese, Total	ug/L	1940	#N/A	2050	#N/A
Manganese, Dissolved	ug/L	1730	#N/A	1950	#N/A
Nitrogen, Nitrate	mg/L	<0.1	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	<0.1	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	0.32	#N/A	0.24	#N/A
Potassium, Total	ug/L	8730	#N/A	10800	#N/A
Potassium, Dissolved	ug/L	9050	#N/A	11400	#N/A
Silica, Total	ug/L	13400	#N/A	12200	#N/A
Sodium, Total	ug/L	29400	#N/A	29500	#N/A
Sulfide	mg/L	<0.1	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	2.1	#N/A	2.3	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-27B (P4R3)	MW-28B (Field Reading)	MW-28B (P4R3)	MW-28I (Field Reading)
Sample Date		11/8/2023	11/1/2023	11/8/2023	11/1/2023
Pace Lab ID		50359160002	0	50359162001	0
Static Water Elevation		#N/A	402.75	#N/A	402.57
Field Parameters					
Temperature, Field	°C	#N/A	17.88	#N/A	26.40
Dissolved Oxygen, Field	mg/L	#N/A	0.07	#N/A	0.00
Conductivity, Field	uS/cm	#N/A	1354.90	#N/A	1905.27
ORP, Field	mV	#N/A	-13.66	#N/A	-132.69
pH, Field	S.U.	#N/A	6.56	#N/A	6.97
Turbidity, Field	NTU	#N/A	0.00	#N/A	31.19
Appendix III Constituents					
Boron, Total	ug/L	8660	#N/A	7280	#N/A
Calcium, Total	ug/L	247000	#N/A	252000	#N/A
Chloride	mg/L	169	#N/A	76	#N/A
Fluoride	mg/L	<0.1	#N/A	0.21	#N/A
Sulfate	mg/L	142	#N/A	577	#N/A
Total Dissolved Solids	mg/L	1240	#N/A	1230	#N/A
pH at 25 Degrees C	Std. Units	7.2	#N/A	7.4	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	36.5	#N/A	1.4	#N/A
Barium, Total	ug/L	404	#N/A	40.4	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	#N/A	4.1	#N/A
Lead, Total	ug/L	<10	#N/A	<10	#N/A
Lithium, Total	ug/L	<20	#N/A	126	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	<10	#N/A	385	#N/A
Molybdenum, Dissolved	ug/L	<10	#N/A	383	#N/A
Radium-226	pCi/L	2.59	#N/A	<0.183	#N/A
Radium-228	pCi/L	1.6	#N/A	0.348	#N/A
Selenium, Total	ug/L	<1	#N/A	<1	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	4.19	#N/A	<0.531	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	762	#N/A	227	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	762	#N/A	227	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Aluminum, Total	ug/L	21	#N/A	<10	#N/A
Boron, Dissolved	ug/L	9060	#N/A	7310	#N/A
Bromide	mg/L	3.6	#N/A	3	#N/A
Dissolved Organic Carbon	mg/L	16.2	#N/A	2.7	#N/A
Iron, Total	ug/L	21700	#N/A	997	#N/A
Iron, Ferrous	mg/L	<0.2	#N/A	0.64	#N/A
Iron, Dissolved	ug/L	21900	#N/A	924	#N/A
Magnesium, Total	ug/L	74900	#N/A	39600	#N/A
Magnesium, Dissolved	ug/L	79700	#N/A	40400	#N/A
Manganese, Total	ug/L	980	#N/A	2660	#N/A
Manganese, Dissolved	ug/L	949	#N/A	2470	#N/A
Nitrogen, Nitrate	mg/L	<0.1	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	<0.1	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	6.9	#N/A	<0.15	#N/A
Potassium, Total	ug/L	4240	#N/A	13900	#N/A
Potassium, Dissolved	ug/L	4600	#N/A	14600	#N/A
Silica, Total	ug/L	26700	#N/A	13100	#N/A
Sodium, Total	ug/L	69800	#N/A	46600	#N/A
Sulfide	mg/L	<0.1	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	15.8	#N/A	2.2	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-28I (P4R3)	MW-28A (Field Reading)	MW-28A (P4R3)	MW-29B (Field Reading)
Sample Date		11/8/2023	11/1/2023	11/8/2023	11/1/2023
Pace Lab ID		50359162003	0	50359162006	0
Static Water Elevation		#N/A	402.75	#N/A	403.19
Field Parameters					
Temperature, Field	°C	#N/A	17.45	#N/A	13.15
Dissolved Oxygen, Field	mg/L	#N/A	0.11	#N/A	1.90
Conductivity, Field	uS/cm	#N/A	1460.08	#N/A	769.19
ORP, Field	mV	#N/A	-130.54	#N/A	145.09
pH, Field	S.U.	#N/A	7.44	#N/A	6.59
Turbidity, Field	NTU	#N/A	45.61	#N/A	0.00
Appendix III Constituents					
Boron, Total	ug/L	21000	#N/A	26500	#N/A
Calcium, Total	ug/L	569000	#N/A	661000	#N/A
Chloride	mg/L	117	#N/A	140	#N/A
Fluoride	mg/L	<0.1	#N/A	<0.1	#N/A
Sulfate	mg/L	1300	#N/A	1420	#N/A
Total Dissolved Solids	mg/L	2460	#N/A	2640	#N/A
pH at 25 Degrees C	Std. Units	7.2	#N/A	7.2	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	1.1	#N/A	1.4	#N/A
Barium, Total	ug/L	32.4	#N/A	31.2	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	#N/A	<1	#N/A
Lead, Total	ug/L	<10	#N/A	<10	#N/A
Lithium, Total	ug/L	<20	#N/A	<20	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	842	#N/A	1550	#N/A
Molybdenum, Dissolved	ug/L	823	#N/A	1560	#N/A
Radium-226	pCi/L	<0.0626	#N/A	0.972	#N/A
Radium-228	pCi/L	0.737	#N/A	1.06	#N/A
Selenium, Total	ug/L	<1	#N/A	<1	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	0.8	#N/A	2.03	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	101	#N/A	50.6	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	101	#N/A	50.6	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Aluminum, Total	ug/L	68.9	#N/A	65.7	#N/A
Boron, Dissolved	ug/L	21600	#N/A	27300	#N/A
Bromide	mg/L	2	#N/A	1.3	#N/A
Dissolved Organic Carbon	mg/L	2.6	#N/A	2.7	#N/A
Iron, Total	ug/L	9640	#N/A	8630	#N/A
Iron, Ferrous	mg/L	0.87	#N/A	1.6	#N/A
Iron, Dissolved	ug/L	8770	#N/A	8400	#N/A
Magnesium, Total	ug/L	15300	#N/A	12300	#N/A
Magnesium, Dissolved	ug/L	15000	#N/A	11600	#N/A
Manganese, Total	ug/L	2070	#N/A	2170	#N/A
Manganese, Dissolved	ug/L	1970	#N/A	2100	#N/A
Nitrogen, Nitrate	mg/L	<0.1	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	<0.1	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	0.4	#N/A	0.27	#N/A
Potassium, Total	ug/L	34100	#N/A	34300	#N/A
Potassium, Dissolved	ug/L	35700	#N/A	35900	#N/A
Silica, Total	ug/L	12200	#N/A	11700	#N/A
Sodium, Total	ug/L	35600	#N/A	32700	#N/A
Sulfide	mg/L	0.027	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	2.3	#N/A	2.3	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-29B (P4R3)	MW-29I (Field Reading)	MW-29I (P4R3)	MW-29A (Field Reading)
Sample Date		11/3/2023	11/1/2023	11/3/2023	11/1/2023
Pace Lab ID		50358539001	0	50358539002	0
Static Water Elevation		#N/A	403.18	#N/A	403.21
Field Parameters					
Temperature, Field	°C	#N/A	13.68	#N/A	15.27
Dissolved Oxygen, Field	mg/L	#N/A	0.11	#N/A	0.08
Conductivity, Field	uS/cm	#N/A	758.09	#N/A	1129.51
ORP, Field	mV	#N/A	-99.91	#N/A	-120.15
pH, Field	S.U.	#N/A	6.64	#N/A	6.73
Turbidity, Field	NTU	#N/A	1081.57	#N/A	8.00
Appendix III Constituents					
Boron, Total	ug/L	147	#N/A	1640	#N/A
Calcium, Total	ug/L	162000	#N/A	149000	#N/A
Chloride	mg/L	11.8	#N/A	19.3	#N/A
Fluoride	mg/L	<0.1	#N/A	<0.1	#N/A
Sulfate	mg/L	23	#N/A	171	#N/A
Total Dissolved Solids	mg/L	500	#N/A	584	#N/A
pH at 25 Degrees C	Std. Units	7.2	#N/A	7.1	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	<1	#N/A	<1	#N/A
Barium, Total	ug/L	77	#N/A	61	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	2.5	#N/A	<1	#N/A
Lead, Total	ug/L	<10	#N/A	<10	#N/A
Lithium, Total	ug/L	<20	#N/A	<20	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	<10	#N/A	<10	#N/A
Molybdenum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Radium-226	pCi/L	<-0.395	#N/A	0.435	#N/A
Radium-228	pCi/L	<0.00363	#N/A	<0.301	#N/A
Selenium, Total	ug/L	<1	#N/A	<1	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	<0.00363	#N/A	0.736	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	471	#N/A	309	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	471	#N/A	309	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Aluminum, Total	ug/L	<10	#N/A	34.3	#N/A
Boron, Dissolved	ug/L	122	#N/A	1550	#N/A
Bromide	mg/L	<0.05	#N/A	0.62	#N/A
Dissolved Organic Carbon	mg/L	2.2	#N/A	1.6	#N/A
Iron, Total	ug/L	<100	#N/A	5740	#N/A
Iron, Ferrous	mg/L	<0.2	#N/A	2.9	#N/A
Iron, Dissolved	ug/L	<100	#N/A	5150	#N/A
Magnesium, Total	ug/L	33300	#N/A	36400	#N/A
Magnesium, Dissolved	ug/L	29200	#N/A	33200	#N/A
Manganese, Total	ug/L	2560	#N/A	1480	#N/A
Manganese, Dissolved	ug/L	2000	#N/A	1360	#N/A
Nitrogen, Nitrate	mg/L	0.82	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	<0.1	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	<0.15	#N/A	0.6	#N/A
Potassium, Total	ug/L	<1000	#N/A	<1000	#N/A
Potassium, Dissolved	ug/L	<1000	#N/A	<1000	#N/A
Silica, Total	ug/L	14400	#N/A	11900	#N/A
Sodium, Total	ug/L	6400	#N/A	7070	#N/A
Sulfide	mg/L	<0.1	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	2.2	#N/A	1.4	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-29A (P4R3)	MW-36B (Field Reading)	MW-36B (P4R4)	MW-36I (Field Reading)
Sample Date		11/6/2023	11/1/2023	11/7/2023	11/1/2023
Pace Lab ID		50358880001	0	50359039002	0
Static Water Elevation		#N/A	403.09	#N/A	403.12
Field Parameters					
Temperature, Field	°C	#N/A	15.94	#N/A	16.79
Dissolved Oxygen, Field	mg/L	#N/A	5.31	#N/A	0.07
Conductivity, Field	uS/cm	#N/A	477.03	#N/A	851.99
ORP, Field	mV	#N/A	230.00	#N/A	-99.63
pH, Field	S.U.	#N/A	7.04	#N/A	6.71
Turbidity, Field	NTU	#N/A	24.09	#N/A	9.74
Appendix III Constituents					
Boron, Total	ug/L	4700	#N/A	<100	#N/A
Calcium, Total	ug/L	228000	#N/A	102000	#N/A
Chloride	mg/L	28.8	#N/A	3.6	#N/A
Fluoride	mg/L	<0.1	#N/A	<0.1	#N/A
Sulfate	mg/L	409	#N/A	18	#N/A
Total Dissolved Solids	mg/L	882	#N/A	398	#N/A
pH at 25 Degrees C	Std. Units	7.4	#N/A	7.7	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	<1	#N/A	<1	#N/A
Barium, Total	ug/L	29.4	#N/A	82.2	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	#N/A	<1	#N/A
Lead, Total	ug/L	<10	#N/A	<10	#N/A
Lithium, Total	ug/L	<20	#N/A	<20	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	75	#N/A	<10	#N/A
Molybdenum, Dissolved	ug/L	75.2	#N/A	<10	#N/A
Radium-226	pCi/L	0.821	#N/A	<0	#N/A
Radium-228	pCi/L	0.629	#N/A	0.934	#N/A
Selenium, Total	ug/L	<1	#N/A	1.4	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	1.45	#N/A	0.934	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	291	#N/A	331	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	291	#N/A	331	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Aluminum, Total	ug/L	45.5	#N/A	33.2	#N/A
Boron, Dissolved	ug/L	4790	#N/A	<100	#N/A
Bromide	mg/L	1.0	#N/A	<0.05	#N/A
Dissolved Organic Carbon	mg/L	2.1	#N/A	1.4	#N/A
Iron, Total	ug/L	5560	#N/A	<100	#N/A
Iron, Ferrous	mg/L	<0.2	#N/A	<0.2	#N/A
Iron, Dissolved	ug/L	5480	#N/A	<100	#N/A
Magnesium, Total	ug/L	39500	#N/A	32100	#N/A
Magnesium, Dissolved	ug/L	36900	#N/A	31600	#N/A
Manganese, Total	ug/L	1200	#N/A	5.2	#N/A
Manganese, Dissolved	ug/L	1170	#N/A	3.1	#N/A
Nitrogen, Nitrate	mg/L	<0.1	#N/A	8.2	#N/A
Nitrogen, Nitrite	mg/L	<0.1	#N/A	<0.5	#N/A
Phosphate as P04	mg/L	0.49	#N/A	<0.15	#N/A
Potassium, Total	ug/L	2330	#N/A	<1000	#N/A
Potassium, Dissolved	ug/L	2420	#N/A	<1000	#N/A
Silica, Total	ug/L	12900	#N/A	15200	#N/A
Sodium, Total	ug/L	15700	#N/A	2970	#N/A
Sulfide	mg/L	<0.1	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	1.4	#N/A	<1	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-36I (P4R4)	MW-36A (Field Reading)	MW-36A (P4R4)	MW-37B (Field Reading)
Sample Date		11/6/2023	11/1/2023	11/7/2023	11/1/2023
Pace Lab ID		50358877004	0	50359039001	0
Static Water Elevation		#N/A	403.13	#N/A	402.82
Field Parameters					
Temperature, Field	°C	#N/A	18.65	#N/A	16.96
Dissolved Oxygen, Field	mg/L	#N/A	2.79	#N/A	0.31
Conductivity, Field	uS/cm	#N/A	864.91	#N/A	741.24
ORP, Field	mV	#N/A	-68.02	#N/A	101.43
pH, Field	S.U.	#N/A	6.61	#N/A	6.67
Turbidity, Field	NTU	#N/A	8.48	#N/A	6.36
Appendix III Constituents					
Boron, Total	ug/L	1010	#N/A	1150	#N/A
Calcium, Total	ug/L	151000	#N/A	152000	#N/A
Chloride	mg/L	6.5	#N/A	8.2	#N/A
Fluoride	mg/L	<0.1	#N/A	<0.1	#N/A
Sulfate	mg/L	303	#N/A	333	#N/A
Total Dissolved Solids	mg/L	679	#N/A	735	#N/A
pH at 25 Degrees C	Std. Units	7.2	#N/A	7.7	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	1.1	#N/A	1.1	#N/A
Barium, Total	ug/L	64.4	#N/A	43.1	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	#N/A	<1	#N/A
Lead, Total	ug/L	<10	#N/A	<10	#N/A
Lithium, Total	ug/L	<20	#N/A	<20	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	<10	#N/A	<10	#N/A
Molybdenum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Radium-226	pCi/L	<-0.128	#N/A	<-0.252	#N/A
Radium-228	pCi/L	<0.32	#N/A	0.595	#N/A
Selenium, Total	ug/L	<1	#N/A	<1	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	<0.32	#N/A	<0.595	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	249	#N/A	228	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	249	#N/A	228	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Aluminum, Total	ug/L	102	#N/A	53.9	#N/A
Boron, Dissolved	ug/L	1010	#N/A	1070	#N/A
Bromide	mg/L	0.067	#N/A	0.071	#N/A
Dissolved Organic Carbon	mg/L	4.0	#N/A	2.1	#N/A
Iron, Total	ug/L	5330	#N/A	5780	#N/A
Iron, Ferrous	mg/L	<0.2	#N/A	<0.2	#N/A
Iron, Dissolved	ug/L	4970	#N/A	5560	#N/A
Magnesium, Total	ug/L	44100	#N/A	43200	#N/A
Magnesium, Dissolved	ug/L	42400	#N/A	42400	#N/A
Manganese, Total	ug/L	765	#N/A	383	#N/A
Manganese, Dissolved	ug/L	713	#N/A	384	#N/A
Nitrogen, Nitrate	mg/L	<0.1	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	<0.1	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	0.39	#N/A	0.42	#N/A
Potassium, Total	ug/L	1620	#N/A	1580	#N/A
Potassium, Dissolved	ug/L	1620	#N/A	1670	#N/A
Silica, Total	ug/L	13200	#N/A	13200	#N/A
Sodium, Total	ug/L	7670	#N/A	8400	#N/A
Sulfide	mg/L	<0.1	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	<1	#N/A	1	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-37B (P4R4)	MW-37I (Field Reading)	MW-37I (P4R4)	MW-37A (Field Reading)
Sample Date		11/3/2023	11/1/2023	11/3/2023	11/1/2023
Pace Lab ID		50358538003	0	50358538002	0
Static Water Elevation		#N/A	402.87	#N/A	402.85
Field Parameters					
Temperature, Field	°C	#N/A	16.98	#N/A	15.35
Dissolved Oxygen, Field	mg/L	#N/A	0.13	#N/A	0.05
Conductivity, Field	uS/cm	#N/A	1992.22	#N/A	2054.53
ORP, Field	mV	#N/A	-124.40	#N/A	-112.03
pH, Field	S.U.	#N/A	6.75	#N/A	6.58
Turbidity, Field	NTU	#N/A	2.00	#N/A	4.90
Appendix III Constituents					
Boron, Total	ug/L	1050	#N/A	9560	#N/A
Calcium, Total	ug/L	146000	#N/A	541000	#N/A
Chloride	mg/L	7.2	#N/A	26.5	#N/A
Fluoride	mg/L	<0.1	#N/A	<0.1	#N/A
Sulfate	mg/L	94.4	#N/A	1200	#N/A
Total Dissolved Solids	mg/L	552	#N/A	2060	#N/A
pH at 25 Degrees C	Std. Units	7.1	#N/A	6.8	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	<1	#N/A	<1	#N/A
Barium, Total	ug/L	38.5	#N/A	25.7	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	#N/A	<1	#N/A
Lead, Total	ug/L	<10	#N/A	<10	#N/A
Lithium, Total	ug/L	<20	#N/A	<20	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	<10	#N/A	187	#N/A
Molybdenum, Dissolved	ug/L	<10	#N/A	177	#N/A
Radium-226	pCi/L	<-0.537	#N/A	<0.0964	#N/A
Radium-228	pCi/L	0.417	#N/A	0.839	#N/A
Selenium, Total	ug/L	2.4	#N/A	<1	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	<0.417	#N/A	0.935	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	345	#N/A	128	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	345	#N/A	128	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Aluminum, Total	ug/L	92.2	#N/A	91.4	#N/A
Boron, Dissolved	ug/L	1020	#N/A	9090	#N/A
Bromide	mg/L	0.059	#N/A	0.23	#N/A
Dissolved Organic Carbon	mg/L	1.8	#N/A	1.6	#N/A
Iron, Total	ug/L	148	#N/A	6010	#N/A
Iron, Ferrous	mg/L	<0.2	#N/A	1.3	#N/A
Iron, Dissolved	ug/L	<100	#N/A	5720	#N/A
Magnesium, Total	ug/L	31200	#N/A	23000	#N/A
Magnesium, Dissolved	ug/L	29600	#N/A	21100	#N/A
Manganese, Total	ug/L	170	#N/A	2070	#N/A
Manganese, Dissolved	ug/L	152	#N/A	2050	#N/A
Nitrogen, Nitrate	mg/L	3.9	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	<0.1	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	<0.15	#N/A	0.23	#N/A
Potassium, Total	ug/L	<1000	#N/A	6620	#N/A
Potassium, Dissolved	ug/L	<1000	#N/A	6820	#N/A
Silica, Total	ug/L	14500	#N/A	12700	#N/A
Sodium, Total	ug/L	6790	#N/A	47700	#N/A
Sulfide	mg/L	<0.1	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	1.7	#N/A	1.4	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-37A (P4R4)	MW-38B (Field Reading)	MW-38B (P4R4)	MW-38I (Field Reading)
Sample Date		11/3/2023	11/1/2023	11/14/2023	11/1/2023
Pace Lab ID		50358538001	0	50359713006	0
Static Water Elevation		#N/A	402.99	#N/A	403
Field Parameters					
Temperature, Field	°C	#N/A	#N/A	#N/A	16.38
Dissolved Oxygen, Field	mg/L	#N/A	#N/A	#N/A	9.94
Conductivity, Field	uS/cm	#N/A	#N/A	#N/A	0.06
ORP, Field	mV	#N/A	#N/A	#N/A	-81.67
pH, Field	S.U.	#N/A	#N/A	#N/A	7.64
Turbidity, Field	NTU	#N/A	#N/A	#N/A	0.00
Appendix III Constituents					
Boron, Total	ug/L	13100	#N/A	457	#N/A
Calcium, Total	ug/L	659000	#N/A	133000	#N/A
Chloride	mg/L	47.9	#N/A	8.4	#N/A
Fluoride	mg/L	<0.1	#N/A	<0.1	#N/A
Sulfate	mg/L	1390	#N/A	66.4	#N/A
Total Dissolved Solids	mg/L	2710	#N/A	491	#N/A
pH at 25 Degrees C	Std. Units	6.8	#N/A	7.5	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	<1	#N/A	<1	#N/A
Barium, Total	ug/L	25.6	#N/A	28	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	#N/A	<1	#N/A
Lead, Total	ug/L	<10	#N/A	<10	#N/A
Lithium, Total	ug/L	<20	#N/A	<20	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	436	#N/A	<10	#N/A
Molybdenum, Dissolved	ug/L	419	#N/A	<10	#N/A
Radium-226	pCi/L	<-0.279	#N/A	<0.12	#N/A
Radium-228	pCi/L	0.654	#N/A	<0.127	#N/A
Selenium, Total	ug/L	<1	#N/A	1.1	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	<0.654	#N/A	<0.247	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	94	#N/A	361	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	94	#N/A	361	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Aluminum, Total	ug/L	31.8	#N/A	<10	#N/A
Boron, Dissolved	ug/L	13200	#N/A	459	#N/A
Bromide	mg/L	0.38	#N/A	0.1	#N/A
Dissolved Organic Carbon	mg/L	3.4	#N/A	2.2	#N/A
Iron, Total	ug/L	11500	#N/A	<100	#N/A
Iron, Ferrous	mg/L	3.3	#N/A	<0.2	#N/A
Iron, Dissolved	ug/L	11800	#N/A	<100	#N/A
Magnesium, Total	ug/L	26200	#N/A	28200	#N/A
Magnesium, Dissolved	ug/L	25300	#N/A	28800	#N/A
Manganese, Total	ug/L	1880	#N/A	268	#N/A
Manganese, Dissolved	ug/L	1800	#N/A	256	#N/A
Nitrogen, Nitrate	mg/L	<0.1	#N/A	6.7	#N/A
Nitrogen, Nitrite	mg/L	<0.1	#N/A	<0.5	#N/A
Phosphate as P04	mg/L	0.28	#N/A	<0.15	#N/A
Potassium, Total	ug/L	2130	#N/A	<1000	#N/A
Potassium, Dissolved	ug/L	2400	#N/A	<1000	#N/A
Silica, Total	ug/L	14400	#N/A	13900	#N/A
Sodium, Total	ug/L	67600	#N/A	4810	#N/A
Sulfide	mg/L	<0.1	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	1.8	#N/A	<1	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-38I (P4R4)	MW-38A (Field Reading)	MW-38A (P4R4)	MW-39B (Field Reading)
Sample Date		11/14/2023	11/1/2023	11/14/2023	11/1/2023
Pace Lab ID		50359713005	0	50359713003	0
Static Water Elevation		#N/A	403.04	#N/A	402.49
Field Parameters					
Temperature, Field	°C	#N/A	16.06	#N/A	#N/A
Dissolved Oxygen, Field	mg/L	#N/A	8.52	#N/A	#N/A
Conductivity, Field	uS/cm	#N/A	0.06	#N/A	#N/A
ORP, Field	mV	#N/A	-29.70	#N/A	#N/A
pH, Field	S.U.	#N/A	7.15	#N/A	#N/A
Turbidity, Field	NTU	#N/A	0.00	#N/A	#N/A
Appendix III Constituents					
Boron, Total	ug/L	15200	#N/A	17300	#N/A
Calcium, Total	ug/L	666000	#N/A	644000	#N/A
Chloride	mg/L	102	#N/A	108	#N/A
Fluoride	mg/L	<0.1	#N/A	<0.1	#N/A
Sulfate	mg/L	1770	#N/A	1560	#N/A
Total Dissolved Solids	mg/L	2610	#N/A	2540	#N/A
pH at 25 Degrees C	Std. Units	7	#N/A	7.1	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	<1	#N/A	<1	#N/A
Barium, Total	ug/L	26.1	#N/A	27.1	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	#N/A	<1	#N/A
Lead, Total	ug/L	<10	#N/A	<10	#N/A
Lithium, Total	ug/L	<20	#N/A	<20	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	225	#N/A	333	#N/A
Molybdenum, Dissolved	ug/L	230	#N/A	340	#N/A
Radium-226	pCi/L	0.671	#N/A	<0	#N/A
Radium-228	pCi/L	<0.278	#N/A	0.971	#N/A
Selenium, Total	ug/L	<1	#N/A	<1	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	0.949	#N/A	0.971	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	92.6	#N/A	105	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	92.6	#N/A	105	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	<20	#N/A	<10	#N/A
Aluminum, Total	ug/L	<10	#N/A	<10	#N/A
Boron, Dissolved	ug/L	15500	#N/A	17600	#N/A
Bromide	mg/L	0.71	#N/A	0.76	#N/A
Dissolved Organic Carbon	mg/L	3.1	#N/A	1.8	#N/A
Iron, Total	ug/L	6860	#N/A	7270	#N/A
Iron, Ferrous	mg/L	2.6	#N/A	2.6	#N/A
Iron, Dissolved	ug/L	6820	#N/A	7320	#N/A
Magnesium, Total	ug/L	26400	#N/A	28700	#N/A
Magnesium, Dissolved	ug/L	26900	#N/A	29100	#N/A
Manganese, Total	ug/L	2560	#N/A	2400	#N/A
Manganese, Dissolved	ug/L	2680	#N/A	2440	#N/A
Nitrogen, Nitrate	mg/L	<0.1	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	<0.1	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	0.24	#N/A	0.26	#N/A
Potassium, Total	ug/L	8430	#N/A	8990	#N/A
Potassium, Dissolved	ug/L	8700	#N/A	8970	#N/A
Silica, Total	ug/L	11000	#N/A	11700	#N/A
Sodium, Total	ug/L	34000	#N/A	34000	#N/A
Sulfide	mg/L	<0.1	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	1.4	#N/A	1.6	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-39B (P4R4)	MW-39I (Field Reading)	MW-39I (P4R4)	MW-39A (Field Reading)
Sample Date		11/14/2023	11/1/2023	11/14/2023	11/1/2023
Pace Lab ID		50359713001	0	50359713002	0
Static Water Elevation		#N/A	402.93	#N/A	403.13
Field Parameters					
Temperature, Field	°C	#N/A	#N/A	#N/A	#N/A
Dissolved Oxygen, Field	mg/L	#N/A	#N/A	#N/A	#N/A
Conductivity, Field	uS/cm	#N/A	#N/A	#N/A	#N/A
ORP, Field	mV	#N/A	#N/A	#N/A	#N/A
pH, Field	S.U.	#N/A	#N/A	#N/A	#N/A
Turbidity, Field	NTU	#N/A	#N/A	#N/A	#N/A
Appendix III Constituents					
Boron, Total	ug/L	705	#N/A	16000	#N/A
Calcium, Total	ug/L	127000	#N/A	537000	#N/A
Chloride	mg/L	12	#N/A	85.1	#N/A
Fluoride	mg/L	<0.1	#N/A	<0.1	#N/A
Sulfate	mg/L	58.7	#N/A	1410	#N/A
Total Dissolved Solids	mg/L	504	#N/A	2300	#N/A
pH at 25 Degrees C	Std. Units	7.4	#N/A	7.1	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	<1	#N/A	<1	#N/A
Barium, Total	ug/L	42.7	#N/A	26.8	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	#N/A	<1	#N/A
Lead, Total	ug/L	<10	#N/A	<10	#N/A
Lithium, Total	ug/L	<20	#N/A	<20	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	<10	#N/A	123	#N/A
Molybdenum, Dissolved	ug/L	<10	#N/A	126	#N/A
Radium-226	pCi/L	0.543	#N/A	0.466	#N/A
Radium-228	pCi/L	<-0.079	#N/A	0.584	#N/A
Selenium, Total	ug/L	2.2	#N/A	<1	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	<0.543	#N/A	1.05	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	372	#N/A	181	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	372	#N/A	181	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Aluminum, Total	ug/L	<10	#N/A	<10	#N/A
Boron, Dissolved	ug/L	710	#N/A	16600	#N/A
Bromide	mg/L	0.13	#N/A	0.6	#N/A
Dissolved Organic Carbon	mg/L	1.5	#N/A	1.9	#N/A
Iron, Total	ug/L	<100	#N/A	8620	#N/A
Iron, Ferrous	mg/L	<0.2	#N/A	2.9	#N/A
Iron, Dissolved	ug/L	<100	#N/A	8960	#N/A
Magnesium, Total	ug/L	30500	#N/A	49600	#N/A
Magnesium, Dissolved	ug/L	30900	#N/A	51300	#N/A
Manganese, Total	ug/L	4.4	#N/A	2130	#N/A
Manganese, Dissolved	ug/L	2.9	#N/A	2230	#N/A
Nitrogen, Nitrate	mg/L	4.7	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	<0.1	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	<0.15	#N/A	0.32	#N/A
Potassium, Total	ug/L	<1000	#N/A	9110	#N/A
Potassium, Dissolved	ug/L	<1000	#N/A	9210	#N/A
Silica, Total	ug/L	13500	#N/A	12200	#N/A
Sodium, Total	ug/L	6360	#N/A	37700	#N/A
Sulfide	mg/L	<0.1	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	<1	#N/A	1.3	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-39A (P4R4)	MW-40B (Field Reading)	MW-40B (P4R4)	MW-40I (Field Reading)
Sample Date		11/13/2023	11/1/2023	11/13/2023	11/1/2023
Pace Lab ID		50359612005	0	50359612004	0
Static Water Elevation		#N/A	403	#N/A	402.97
Field Parameters					
Temperature, Field	°C	#N/A	16.15	#N/A	15.42
Dissolved Oxygen, Field	mg/L	#N/A	3.96	#N/A	0.15
Conductivity, Field	uS/cm	#N/A	563.37	#N/A	2078.05
ORP, Field	mV	#N/A	21.16	#N/A	-144.08
pH, Field	S.U.	#N/A	7.56	#N/A	7.49
Turbidity, Field	NTU	#N/A	0.04	#N/A	0.00
Appendix III Constituents					
Boron, Total	ug/L	23500	#N/A	1260	#N/A
Calcium, Total	ug/L	629000	#N/A	110000	#N/A
Chloride	mg/L	117	#N/A	10.8	#N/A
Fluoride	mg/L	<0.1	#N/A	0.12	#N/A
Sulfate	mg/L	1500	#N/A	68.7	#N/A
Total Dissolved Solids	mg/L	2580	#N/A	410	#N/A
pH at 25 Degrees C	Std. Units	7	#N/A	7.3	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	<1	#N/A	<1	#N/A
Barium, Total	ug/L	26.6	#N/A	31.8	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	#N/A	<1	#N/A
Lead, Total	ug/L	<10	#N/A	<10	#N/A
Lithium, Total	ug/L	<20	#N/A	<20	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	363	#N/A	<10	#N/A
Molybdenum, Dissolved	ug/L	355	#N/A	<10	#N/A
Radium-226	pCi/L	0.699	#N/A	<-0.281	#N/A
Radium-228	pCi/L	1.18	#N/A	<0.328	#N/A
Selenium, Total	ug/L	<1	#N/A	1.9	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	1.88	#N/A	<0.328	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	134	#N/A	274	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	134	#N/A	274	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Aluminum, Total	ug/L	12.8	#N/A	<10	#N/A
Boron, Dissolved	ug/L	23100	#N/A	1190	#N/A
Bromide	mg/L	0.73	#N/A	0.12	#N/A
Dissolved Organic Carbon	mg/L	4.0	#N/A	1.9	#N/A
Iron, Total	ug/L	10400	#N/A	<100	#N/A
Iron, Ferrous	mg/L	8.4	#N/A	<0.2	#N/A
Iron, Dissolved	ug/L	10400	#N/A	<100	#N/A
Magnesium, Total	ug/L	53000	#N/A	27200	#N/A
Magnesium, Dissolved	ug/L	53000	#N/A	27000	#N/A
Manganese, Total	ug/L	2070	#N/A	53	#N/A
Manganese, Dissolved	ug/L	2210	#N/A	51.6	#N/A
Nitrogen, Nitrate	mg/L	<0.1	#N/A	7.2	#N/A
Nitrogen, Nitrite	mg/L	<0.1	#N/A	<0.5	#N/A
Phosphate as P04	mg/L	0.32	#N/A	<0.15	#N/A
Potassium, Total	ug/L	11500	#N/A	<1000	#N/A
Potassium, Dissolved	ug/L	11600	#N/A	<1000	#N/A
Silica, Total	ug/L	14200	#N/A	12500	#N/A
Sodium, Total	ug/L	53200	#N/A	14100	#N/A
Sulfide	mg/L	<0.1	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	1.8	#N/A	<1	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-40I (P4R4)	MW-40A (Field Reading)	MW-40A (P4R4)	MW-41B (Field Reading)
Sample Date		11/13/2023	11/1/2023	11/13/2023	11/1/2023
Pace Lab ID		50359612002	0	50359612001	0
Static Water Elevation		#N/A	402.97	#N/A	402.61
Field Parameters					
Temperature, Field	°C	#N/A	15.38	#N/A	14.74
Dissolved Oxygen, Field	mg/L	#N/A	0.23	#N/A	0.04
Conductivity, Field	uS/cm	#N/A	2130.94	#N/A	488.01
ORP, Field	mV	#N/A	-171.19	#N/A	76.88
pH, Field	S.U.	#N/A	7.74	#N/A	6.06
Turbidity, Field	NTU	#N/A	4.70	#N/A	0.00
Appendix III Constituents					
Boron, Total	ug/L	18100	#N/A	23800	#N/A
Calcium, Total	ug/L	569000	#N/A	646000	#N/A
Chloride	mg/L	103	#N/A	133	#N/A
Fluoride	mg/L	<0.1	#N/A	<0.1	#N/A
Sulfate	mg/L	1370	#N/A	1460	#N/A
Total Dissolved Solids	mg/L	2400	#N/A	2660	#N/A
pH at 25 Degrees C	Std. Units	7	#N/A	7.1	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	1	#N/A	<1	#N/A
Barium, Total	ug/L	24.8	#N/A	28.5	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	1.1	#N/A	<1	#N/A
Lead, Total	ug/L	<10	#N/A	<10	#N/A
Lithium, Total	ug/L	<20	#N/A	<20	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	160	#N/A	652	#N/A
Molybdenum, Dissolved	ug/L	155	#N/A	624	#N/A
Radium-226	pCi/L	<0.2	#N/A	<0.358	#N/A
Radium-228	pCi/L	0.763	#N/A	0.815	#N/A
Selenium, Total	ug/L	<1	#N/A	<1	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	<0.963	#N/A	1.17	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	154	#N/A	94.8	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	154	#N/A	94.8	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Aluminum, Total	ug/L	<10	#N/A	14.9	#N/A
Boron, Dissolved	ug/L	17600	#N/A	23400	#N/A
Bromide	mg/L	0.66	#N/A	1.2	#N/A
Dissolved Organic Carbon	mg/L	2.1	#N/A	4.1	#N/A
Iron, Total	ug/L	10600	#N/A	11600	#N/A
Iron, Ferrous	mg/L	7.8	#N/A	6.5	#N/A
Iron, Dissolved	ug/L	11000	#N/A	12100	#N/A
Magnesium, Total	ug/L	69100	#N/A	38200	#N/A
Magnesium, Dissolved	ug/L	71200	#N/A	39500	#N/A
Manganese, Total	ug/L	2020	#N/A	2160	#N/A
Manganese, Dissolved	ug/L	2060	#N/A	2160	#N/A
Nitrogen, Nitrate	mg/L	<0.1	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	<0.1	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	0.26	#N/A	0.21	#N/A
Potassium, Total	ug/L	13500	#N/A	14300	#N/A
Potassium, Dissolved	ug/L	12900	#N/A	13800	#N/A
Silica, Total	ug/L	13100	#N/A	14100	#N/A
Sodium, Total	ug/L	51700	#N/A	51700	#N/A
Sulfide	mg/L	<0.1	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	1.5	#N/A	2.1	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-41B (P4R4)	MW-41I (Field Reading)	MW-41I (P4R4)	MW-41A (Field Reading)
Sample Date		11/6/2023	11/1/2023	11/6/2023	11/1/2023
Pace Lab ID		50358877003	0	50358877002	0
Static Water Elevation		#N/A	402.65	#N/A	402.61
Field Parameters					
Temperature, Field	°C	#N/A	14.60	#N/A	14.42
Dissolved Oxygen, Field	mg/L	#N/A	0.05	#N/A	0.08
Conductivity, Field	uS/cm	#N/A	538.39	#N/A	993.98
ORP, Field	mV	#N/A	-122.23	#N/A	-122.34
pH, Field	S.U.	#N/A	6.44	#N/A	6.55
Turbidity, Field	NTU	#N/A	8.71	#N/A	7.85
Appendix III Constituents					
Boron, Total	ug/L	390	#N/A	1900	#N/A
Calcium, Total	ug/L	107000	#N/A	116000	#N/A
Chloride	mg/L	7.3	#N/A	14	#N/A
Fluoride	mg/L	0.1	#N/A	<0.1	#N/A
Sulfate	mg/L	40.1	#N/A	104	#N/A
Total Dissolved Solids	mg/L	397	#N/A	446	#N/A
pH at 25 Degrees C	Std. Units	7.2	#N/A	7.1	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	<1	#N/A	1.7	#N/A
Barium, Total	ug/L	35.7	#N/A	67.3	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	#N/A	<1	#N/A
Lead, Total	ug/L	<10	#N/A	<10	#N/A
Lithium, Total	ug/L	<20	#N/A	<20	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	<10	#N/A	<10	#N/A
Molybdenum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Radium-226	pCi/L	<-0.181	#N/A	0.226	#N/A
Radium-228	pCi/L	0.621	#N/A	<0.237	#N/A
Selenium, Total	ug/L	2.8	#N/A	<1	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	<0.621	#N/A	<0.463	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	316	#N/A	282	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	316	#N/A	282	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Aluminum, Total	ug/L	<10	#N/A	49.2	#N/A
Boron, Dissolved	ug/L	383	#N/A	1850	#N/A
Bromide	mg/L	0.09	#N/A	0.4	#N/A
Dissolved Organic Carbon	mg/L	3.6	#N/A	3.7	#N/A
Iron, Total	ug/L	<100	#N/A	4810	#N/A
Iron, Ferrous	mg/L	<0.2	#N/A	<0.2	#N/A
Iron, Dissolved	ug/L	<100	#N/A	4650	#N/A
Magnesium, Total	ug/L	26500	#N/A	29000	#N/A
Magnesium, Dissolved	ug/L	25300	#N/A	27200	#N/A
Manganese, Total	ug/L	1130	#N/A	1480	#N/A
Manganese, Dissolved	ug/L	1070	#N/A	1420	#N/A
Nitrogen, Nitrate	mg/L	2.5	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	<0.1	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	<0.15	#N/A	0.67	#N/A
Potassium, Total	ug/L	<1000	#N/A	<1000	#N/A
Potassium, Dissolved	ug/L	<1000	#N/A	<1000	#N/A
Silica, Total	ug/L	12400	#N/A	12600	#N/A
Sodium, Total	ug/L	5440	#N/A	9270	#N/A
Sulfide	mg/L	<0.1	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	<1	#N/A	<1	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-41A (P4R4)	MW-42B (Field Reading)	MW-42B (P4R3)	MW-42I (Field Reading)
Sample Date		11/6/2023	11/1/2023	11/10/2023	11/1/2023
Pace Lab ID		50358877001	0	50359451005	0
Static Water Elevation		#N/A	402.45	#N/A	402.53
Field Parameters					
Temperature, Field	°C	#N/A	#N/A	#N/A	#N/A
Dissolved Oxygen, Field	mg/L	#N/A	#N/A	#N/A	#N/A
Conductivity, Field	uS/cm	#N/A	#N/A	#N/A	#N/A
ORP, Field	mV	#N/A	#N/A	#N/A	#N/A
pH, Field	S.U.	#N/A	#N/A	#N/A	#N/A
Turbidity, Field	NTU	#N/A	#N/A	#N/A	#N/A
Appendix III Constituents					
Boron, Total	ug/L	8950	#N/A	2850	#N/A
Calcium, Total	ug/L	262000	#N/A	239000	#N/A
Chloride	mg/L	41.9	#N/A	25.5	#N/A
Fluoride	mg/L	<0.1	#N/A	<0.1	#N/A
Sulfate	mg/L	517	#N/A	194	#N/A
Total Dissolved Solids	mg/L	1070	#N/A	851	#N/A
pH at 25 Degrees C	Std. Units	6.7	#N/A	7.2	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	<1	#N/A	<1	#N/A
Barium, Total	ug/L	25.8	#N/A	73.2	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	#N/A	2.2	#N/A
Lead, Total	ug/L	<10	#N/A	<10	#N/A
Lithium, Total	ug/L	<20	#N/A	<20	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	361	#N/A	<10	#N/A
Molybdenum, Dissolved	ug/L	382	#N/A	<10	#N/A
Radium-226	pCi/L	<0.0826	#N/A	0.968	#N/A
Radium-228	pCi/L	0.591	#N/A	0.62	#N/A
Selenium, Total	ug/L	<1	#N/A	3.9	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	0.674	#N/A	1.59	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	214	#N/A	514	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	214	#N/A	514	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Aluminum, Total	ug/L	35.3	#N/A	<10	#N/A
Boron, Dissolved	ug/L	9310	#N/A	2310	#N/A
Bromide	mg/L	0.68	#N/A	0.35	#N/A
Dissolved Organic Carbon	mg/L	3.0	#N/A	3.0	#N/A
Iron, Total	ug/L	5770	#N/A	416	#N/A
Iron, Ferrous	mg/L	<0.2	#N/A	<0.2	#N/A
Iron, Dissolved	ug/L	5930	#N/A	309	#N/A
Magnesium, Total	ug/L	27800	#N/A	47200	#N/A
Magnesium, Dissolved	ug/L	26700	#N/A	39800	#N/A
Manganese, Total	ug/L	963	#N/A	1480	#N/A
Manganese, Dissolved	ug/L	941	#N/A	1370	#N/A
Nitrogen, Nitrate	mg/L	<0.1	#N/A	1.5	#N/A
Nitrogen, Nitrite	mg/L	<0.1	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	0.45	#N/A	<0.15	#N/A
Potassium, Total	ug/L	4380	#N/A	2550	#N/A
Potassium, Dissolved	ug/L	4700	#N/A	2300	#N/A
Silica, Total	ug/L	13200	#N/A	15800	#N/A
Sodium, Total	ug/L	21400	#N/A	16400	#N/A
Sulfide	mg/L	<0.1	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	1	#N/A	1.2	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-42I (P4R3)	MW-42A (Field Reading)	MW-42A (P4R4)	MW-43B (Field Reading)
Sample Date		11/10/2023	11/1/2023	11/14/2023	11/1/2023
Pace Lab ID		50359451003	0	50359712003	0
Static Water Elevation		#N/A	402.5	#N/A	402.33
Field Parameters					
Temperature, Field	°C	#N/A	#N/A	#N/A	14.71
Dissolved Oxygen, Field	mg/L	#N/A	#N/A	#N/A	0.73
Conductivity, Field	uS/cm	#N/A	#N/A	#N/A	738.15
ORP, Field	mV	#N/A	#N/A	#N/A	77.13
pH, Field	S.U.	#N/A	#N/A	#N/A	6.71
Turbidity, Field	NTU	#N/A	#N/A	#N/A	0.52
Appendix III Constituents					
Boron, Total	ug/L	16300	#N/A	21300	#N/A
Calcium, Total	ug/L	448000	#N/A	625000	#N/A
Chloride	mg/L	79.3	#N/A	109	#N/A
Fluoride	mg/L	<0.1	#N/A	0.11	#N/A
Sulfate	mg/L	962	#N/A	1710	#N/A
Total Dissolved Solids	mg/L	1800	#N/A	2550	#N/A
pH at 25 Degrees C	Std. Units	7	#N/A	6.9	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	<1	#N/A	<1	#N/A
Barium, Total	ug/L	37.2	#N/A	33.6	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	#N/A	<1	#N/A
Lead, Total	ug/L	<10	#N/A	<10	#N/A
Lithium, Total	ug/L	59.2	#N/A	<20	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	339	#N/A	2350	#N/A
Molybdenum, Dissolved	ug/L	375	#N/A	2480	#N/A
Radium-226	pCi/L	<0.295	#N/A	<0.231	#N/A
Radium-228	pCi/L	0.897	#N/A	1.58	#N/A
Selenium, Total	ug/L	<1	#N/A	<1	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	1.19	#N/A	1.81	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	225	#N/A	71.6	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	225	#N/A	71.6	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	<10	#N/A	<20	#N/A
Aluminum, Total	ug/L	<10	#N/A	<10	#N/A
Boron, Dissolved	ug/L	15900	#N/A	23000	#N/A
Bromide	mg/L	0.89	#N/A	0.7	#N/A
Dissolved Organic Carbon	mg/L	2.3	#N/A	1.7	#N/A
Iron, Total	ug/L	12600	#N/A	9260	#N/A
Iron, Ferrous	mg/L	2.4	#N/A	2.4	#N/A
Iron, Dissolved	ug/L	11400	#N/A	10100	#N/A
Magnesium, Total	ug/L	32600	#N/A	16600	#N/A
Magnesium, Dissolved	ug/L	30200	#N/A	18000	#N/A
Manganese, Total	ug/L	3670	#N/A	2110	#N/A
Manganese, Dissolved	ug/L	3650	#N/A	2260	#N/A
Nitrogen, Nitrate	mg/L	<0.1	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	<0.1	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	0.42	#N/A	0.26	#N/A
Potassium, Total	ug/L	23500	#N/A	30600	#N/A
Potassium, Dissolved	ug/L	23600	#N/A	32900	#N/A
Silica, Total	ug/L	15800	#N/A	12800	#N/A
Sodium, Total	ug/L	35500	#N/A	37900	#N/A
Sulfide	mg/L	<0.1	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	1.6	#N/A	1.4	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-43B (P4R3)	MW-43I (Field Reading)	MW-43I (P4R3)	MW-43A (Field Reading)
Sample Date		#N/A	11/1/2023	11/10/2023	11/1/2023
Pace Lab ID		#N/A	0	50359451002	0
Static Water Elevation		#N/A	402.39	#N/A	402.37
Field Parameters					
Temperature, Field	°C	#N/A	14.61	#N/A	14.85
Dissolved Oxygen, Field	mg/L	#N/A	0.00	#N/A	0.31
Conductivity, Field	uS/cm	#N/A	1268.51	#N/A	2153.25
ORP, Field	mV	#N/A	-62.06	#N/A	-86.34
pH, Field	S.U.	#N/A	6.53	#N/A	6.73
Turbidity, Field	NTU	#N/A	2.54	#N/A	0.72
Appendix III Constituents					
Boron, Total	ug/L	#N/A	#N/A	1610	#N/A
Calcium, Total	ug/L	#N/A	#N/A	234000	#N/A
Chloride	mg/L	#N/A	#N/A	67.8	#N/A
Fluoride	mg/L	#N/A	#N/A	<0.1	#N/A
Sulfate	mg/L	#N/A	#N/A	436	#N/A
Total Dissolved Solids	mg/L	#N/A	#N/A	1080	#N/A
pH at 25 Degrees C	Std. Units	#N/A	#N/A	7.1	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	#N/A	#N/A	3.9	#N/A
Barium, Total	ug/L	#N/A	#N/A	57.6	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	#N/A	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	#N/A	#N/A	<1	#N/A
Lead, Total	ug/L	#N/A	#N/A	<10	#N/A
Lithium, Total	ug/L	#N/A	#N/A	<20	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	#N/A	#N/A	116	#N/A
Molybdenum, Dissolved	ug/L	#N/A	#N/A	114	#N/A
Radium-226	pCi/L	#N/A	#N/A	0.494	#N/A
Radium-228	pCi/L	#N/A	#N/A	0.765	#N/A
Selenium, Total	ug/L	#N/A	#N/A	<1	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	#N/A	#N/A	1.26	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	#N/A	#N/A	383	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	#N/A	#N/A	383	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	#N/A	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	#N/A	#N/A	<10	#N/A
Aluminum, Total	ug/L	#N/A	#N/A	26.5	#N/A
Boron, Dissolved	ug/L	#N/A	#N/A	1550	#N/A
Bromide	mg/L	#N/A	#N/A	0.45	#N/A
Dissolved Organic Carbon	mg/L	#N/A	#N/A	3.2	#N/A
Iron, Total	ug/L	#N/A	#N/A	6890	#N/A
Iron, Ferrous	mg/L	#N/A	#N/A	0.54	#N/A
Iron, Dissolved	ug/L	#N/A	#N/A	6250	#N/A
Magnesium, Total	ug/L	#N/A	#N/A	48700	#N/A
Magnesium, Dissolved	ug/L	#N/A	#N/A	46000	#N/A
Manganese, Total	ug/L	#N/A	#N/A	1670	#N/A
Manganese, Dissolved	ug/L	#N/A	#N/A	1640	#N/A
Nitrogen, Nitrate	mg/L	#N/A	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	#N/A	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	#N/A	#N/A	0.41	#N/A
Potassium, Total	ug/L	#N/A	#N/A	4760	#N/A
Potassium, Dissolved	ug/L	#N/A	#N/A	4730	#N/A
Silica, Total	ug/L	#N/A	#N/A	16900	#N/A
Sodium, Total	ug/L	#N/A	#N/A	40300	#N/A
Sulfide	mg/L	#N/A	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	#N/A	#N/A	1.8	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-43A (P4R3)	MW-44B (Field Reading)	MW-44B (P4R4)	MW-44I (Field Reading)
Sample Date		11/10/2023	11/1/2023	11/9/2023	11/1/2023
Pace Lab ID		50359451001	0	50359374002	0
Static Water Elevation		#N/A	402.38	#N/A	402.35
Field Parameters					
Temperature, Field	°C	#N/A	17.27	#N/A	17.13
Dissolved Oxygen, Field	mg/L	#N/A	0.03	#N/A	0.12
Conductivity, Field	uS/cm	#N/A	1213.43	#N/A	1111.97
ORP, Field	mV	#N/A	-66.51	#N/A	-70.20
pH, Field	S.U.	#N/A	6.44	#N/A	6.33
Turbidity, Field	NTU	#N/A	0.00	#N/A	0.00
Appendix III Constituents					
Boron, Total	ug/L	12900	#N/A	1390	#N/A
Calcium, Total	ug/L	521000	#N/A	198000	#N/A
Chloride	mg/L	109	#N/A	118	#N/A
Fluoride	mg/L	<0.1	#N/A	<0.1	#N/A
Sulfate	mg/L	1290	#N/A	166	#N/A
Total Dissolved Solids	mg/L	2230	#N/A	894	#N/A
pH at 25 Degrees C	Std. Units	7	#N/A	7.3	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	1.6	#N/A	3.5	#N/A
Barium, Total	ug/L	29.3	#N/A	159	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	#N/A	<1	#N/A
Lead, Total	ug/L	<10	#N/A	<10	#N/A
Lithium, Total	ug/L	<20	#N/A	<20	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	328	#N/A	11.3	#N/A
Molybdenum, Dissolved	ug/L	312	#N/A	11.1	#N/A
Radium-226	pCi/L	0.488	#N/A	0.802	#N/A
Radium-228	pCi/L	<0.257	#N/A	0.671	#N/A
Selenium, Total	ug/L	<1	#N/A	<1	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	0.745	#N/A	1.47	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	125	#N/A	444	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	125	#N/A	444	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Aluminum, Total	ug/L	23.4	#N/A	<10	#N/A
Boron, Dissolved	ug/L	11800	#N/A	1360	#N/A
Bromide	mg/L	0.34	#N/A	1.2	#N/A
Dissolved Organic Carbon	mg/L	3.4	#N/A	4.5	#N/A
Iron, Total	ug/L	8160	#N/A	6000	#N/A
Iron, Ferrous	mg/L	1.7	#N/A	<0.2	#N/A
Iron, Dissolved	ug/L	7300	#N/A	5810	#N/A
Magnesium, Total	ug/L	34500	#N/A	46100	#N/A
Magnesium, Dissolved	ug/L	32300	#N/A	44000	#N/A
Manganese, Total	ug/L	1520	#N/A	1570	#N/A
Manganese, Dissolved	ug/L	1490	#N/A	1600	#N/A
Nitrogen, Nitrate	mg/L	<0.1	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	<0.1	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	0.59	#N/A	0.89	#N/A
Potassium, Total	ug/L	19800	#N/A	2010	#N/A
Potassium, Dissolved	ug/L	18400	#N/A	1990	#N/A
Silica, Total	ug/L	14400	#N/A	20300	#N/A
Sodium, Total	ug/L	65100	#N/A	42400	#N/A
Sulfide	mg/L	<0.1	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	1.8	#N/A	1.8	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-44I (P4R4)	MW-44A (Field Reading)	MW-44A (P4R4)	MW-45B (Field Reading)
Sample Date		11/9/2023	11/1/2023	11/9/2023	11/1/2023
Pace Lab ID		50359374003	0	50359374001	0
Static Water Elevation		#N/A	402.42	#N/A	403.49
Field Parameters					
Temperature, Field	°C	#N/A	17.45	#N/A	#N/A
Dissolved Oxygen, Field	mg/L	#N/A	1.14	#N/A	#N/A
Conductivity, Field	uS/cm	#N/A	1271.97	#N/A	#N/A
ORP, Field	mV	#N/A	-64.13	#N/A	#N/A
pH, Field	S.U.	#N/A	6.35	#N/A	#N/A
Turbidity, Field	NTU	#N/A	2.47	#N/A	#N/A
Appendix III Constituents					
Boron, Total	ug/L	1080	#N/A	1050	#N/A
Calcium, Total	ug/L	210000	#N/A	239000	#N/A
Chloride	mg/L	86.7	#N/A	64.1	#N/A
Fluoride	mg/L	<0.1	#N/A	<0.1	#N/A
Sulfate	mg/L	242	#N/A	412	#N/A
Total Dissolved Solids	mg/L	924	#N/A	1040	#N/A
pH at 25 Degrees C	Std. Units	7.2	#N/A	7.8	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	1.9	#N/A	2.9	#N/A
Barium, Total	ug/L	63.9	#N/A	32.8	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	#N/A	<1	#N/A
Lead, Total	ug/L	<10	#N/A	<10	#N/A
Lithium, Total	ug/L	<20	#N/A	<20	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	26.1	#N/A	64.3	#N/A
Molybdenum, Dissolved	ug/L	24.3	#N/A	60.6	#N/A
Radium-226	pCi/L	<0.269	#N/A	<0.127	#N/A
Radium-228	pCi/L	0.55	#N/A	0.516	#N/A
Selenium, Total	ug/L	<1	#N/A	<1	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	<0.819	#N/A	<0.643	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	442	#N/A	381	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	432	#N/A	381	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	10.4	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Aluminum, Total	ug/L	17.8	#N/A	24.7	#N/A
Boron, Dissolved	ug/L	1040	#N/A	1010	#N/A
Bromide	mg/L	1.1	#N/A	0.51	#N/A
Dissolved Organic Carbon	mg/L	3.5	#N/A	3.3	#N/A
Iron, Total	ug/L	7600	#N/A	7870	#N/A
Iron, Ferrous	mg/L	<0.2	#N/A	<0.2	#N/A
Iron, Dissolved	ug/L	7310	#N/A	7710	#N/A
Magnesium, Total	ug/L	52000	#N/A	50500	#N/A
Magnesium, Dissolved	ug/L	49600	#N/A	48600	#N/A
Manganese, Total	ug/L	889	#N/A	803	#N/A
Manganese, Dissolved	ug/L	924	#N/A	819	#N/A
Nitrogen, Nitrate	mg/L	<0.1	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	<0.1	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	1.3	#N/A	1.1	#N/A
Potassium, Total	ug/L	1860	#N/A	2620	#N/A
Potassium, Dissolved	ug/L	1820	#N/A	2560	#N/A
Silica, Total	ug/L	20900	#N/A	19400	#N/A
Sodium, Total	ug/L	39700	#N/A	30200	#N/A
Sulfide	mg/L	<0.1	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	1.5	#N/A	1.6	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-45B (P4R4)	MW-45I (Field Reading)	MW-45I (P4R4)	MW-45A (Field Reading)
Sample Date		11/13/2023	11/1/2023	11/14/2023	11/1/2023
Pace Lab ID		50359566001	0	50359712001	0
Static Water Elevation		#N/A	403.47	#N/A	403.59
Field Parameters					
Temperature, Field	°C	#N/A	28.71	#N/A	29.69
Dissolved Oxygen, Field	mg/L	#N/A	0.11	#N/A	0.45
Conductivity, Field	uS/cm	#N/A	1411.60	#N/A	1437.26
ORP, Field	mV	#N/A	-223.61	#N/A	-219.19
pH, Field	S.U.	#N/A	5.74	#N/A	5.16
Turbidity, Field	NTU	#N/A	#SPILL!	#N/A	78.63
Appendix III Constituents					
Boron, Total	ug/L	<100	#N/A	363	#N/A
Calcium, Total	ug/L	121000	#N/A	188000	#N/A
Chloride	mg/L	5.5	#N/A	7	#N/A
Fluoride	mg/L	0.11	#N/A	0.19	#N/A
Sulfate	mg/L	123	#N/A	380	#N/A
Total Dissolved Solids	mg/L	501	#N/A	848	#N/A
pH at 25 Degrees C	Std. Units	7.3	#N/A	7.4	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	<1	#N/A	2.8	#N/A
Barium, Total	ug/L	60.8	#N/A	76.2	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	#N/A	1.2	#N/A
Lead, Total	ug/L	<10	#N/A	<10	#N/A
Lithium, Total	ug/L	<20	#N/A	<20	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	<10	#N/A	<10	#N/A
Molybdenum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Radium-226	pCi/L	<0.0687	#N/A	<0.303	#N/A
Radium-228	pCi/L	<0.24	#N/A	<0.309	#N/A
Selenium, Total	ug/L	<1	#N/A	<1	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	<0.309	#N/A	<0.612	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	340	#N/A	315	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	340	#N/A	315	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Aluminum, Total	ug/L	90.1	#N/A	159	#N/A
Boron, Dissolved	ug/L	<100	#N/A	385	#N/A
Bromide	mg/L	<0.05	#N/A	0.084	#N/A
Dissolved Organic Carbon	mg/L	1.5	#N/A	1.4	#N/A
Iron, Total	ug/L	272	#N/A	7150	#N/A
Iron, Ferrous	mg/L	<0.2	#N/A	1.5	#N/A
Iron, Dissolved	ug/L	101	#N/A	7040	#N/A
Magnesium, Total	ug/L	40900	#N/A	54600	#N/A
Magnesium, Dissolved	ug/L	42500	#N/A	58400	#N/A
Manganese, Total	ug/L	116	#N/A	751	#N/A
Manganese, Dissolved	ug/L	77.1	#N/A	762	#N/A
Nitrogen, Nitrate	mg/L	1.6	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	<0.1	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	<0.15	#N/A	0.69	#N/A
Potassium, Total	ug/L	<1000	#N/A	<1000	#N/A
Potassium, Dissolved	ug/L	<1000	#N/A	<1000	#N/A
Silica, Total	ug/L	14600	#N/A	19700	#N/A
Sodium, Total	ug/L	4230	#N/A	7100	#N/A
Sulfide	mg/L	<0.1	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	<1	#N/A	<1	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-45A (P4R4)	MW-46B (Field Reading)	MW-46B (P4R4)	MW-46I (Field Reading)
Sample Date		11/14/2023	11/1/2023	11/15/2023	11/1/2023
Pace Lab ID		50359712002	0	50359843001	0
Static Water Elevation		#N/A	403.26	#N/A	403.29
Field Parameters					
Temperature, Field	°C	#N/A	29.07	#N/A	29.53
Dissolved Oxygen, Field	mg/L	#N/A	0.00	#N/A	0.35
Conductivity, Field	uS/cm	#N/A	1061.60	#N/A	1219.76
ORP, Field	mV	#N/A	-209.86	#N/A	-222.60
pH, Field	S.U.	#N/A	5.83	#N/A	5.78
Turbidity, Field	NTU	#N/A	13.61	#N/A	8.13
Appendix III Constituents					
Boron, Total	ug/L	659	#N/A	<100	#N/A
Calcium, Total	ug/L	183000	#N/A	137000	#N/A
Chloride	mg/L	7	#N/A	8	#N/A
Fluoride	mg/L	0.55	#N/A	0.1	#N/A
Sulfate	mg/L	387	#N/A	93.5	#N/A
Total Dissolved Solids	mg/L	901	#N/A	520	#N/A
pH at 25 Degrees C	Std. Units	7.1	#N/A	6.9	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	1.4	#N/A	<1	#N/A
Barium, Total	ug/L	45.8	#N/A	82.6	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	#N/A	<1	#N/A
Lead, Total	ug/L	<10	#N/A	<10	#N/A
Lithium, Total	ug/L	21	#N/A	<20	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	<10	#N/A	<10	#N/A
Molybdenum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Radium-226	pCi/L	<0.0813	#N/A	0.245	#N/A
Radium-228	pCi/L	<0.229	#N/A	0.591	#N/A
Selenium, Total	ug/L	<1	#N/A	<1	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	<0.31	#N/A	0.836	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	317	#N/A	420	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	317	#N/A	420	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Aluminum, Total	ug/L	417	#N/A	253	#N/A
Boron, Dissolved	ug/L	713	#N/A	<100	#N/A
Bromide	mg/L	0.074	#N/A	<0.05	#N/A
Dissolved Organic Carbon	mg/L	1.1	#N/A	2.8	#N/A
Iron, Total	ug/L	9470	#N/A	3040	#N/A
Iron, Ferrous	mg/L	1.7	#N/A	0.54	#N/A
Iron, Dissolved	ug/L	8490	#N/A	2590	#N/A
Magnesium, Total	ug/L	56300	#N/A	43100	#N/A
Magnesium, Dissolved	ug/L	61100	#N/A	41600	#N/A
Manganese, Total	ug/L	437	#N/A	1310	#N/A
Manganese, Dissolved	ug/L	421	#N/A	1370	#N/A
Nitrogen, Nitrate	mg/L	<0.1	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	<0.1	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	0.43	#N/A	0.46	#N/A
Potassium, Total	ug/L	1310	#N/A	<1000	#N/A
Potassium, Dissolved	ug/L	1190	#N/A	<1000	#N/A
Silica, Total	ug/L	23500	#N/A	14000	#N/A
Sodium, Total	ug/L	8350	#N/A	6030	#N/A
Sulfide	mg/L	<0.1	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	1	#N/A	1.7	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-46I (P4R4)	MW-46A (Field Reading)	MW-46A (P4R4)	MW-47B (Field Reading)
Sample Date		11/15/2023	11/1/2023	11/15/2023	11/1/2023
Pace Lab ID		50359843002	0	50359843003	0
Static Water Elevation		#N/A	403.35	#N/A	403.15
Field Parameters					
Temperature, Field	°C	#N/A	29.73	#N/A	29.36
Dissolved Oxygen, Field	mg/L	#N/A	0.26	#N/A	0.08
Conductivity, Field	uS/cm	#N/A	1439.14	#N/A	1322.68
ORP, Field	mV	#N/A	-225.17	#N/A	-184.15
pH, Field	S.U.	#N/A	5.57	#N/A	5.33
Turbidity, Field	NTU	#N/A	9.71	#N/A	7.87
Appendix III Constituents					
Boron, Total	ug/L	638	#N/A	1220	#N/A
Calcium, Total	ug/L	155000	#N/A	193000	#N/A
Chloride	mg/L	8.4	#N/A	9.7	#N/A
Fluoride	mg/L	0.11	#N/A	<0.1	#N/A
Sulfate	mg/L	310	#N/A	431	#N/A
Total Dissolved Solids	mg/L	737	#N/A	912	#N/A
pH at 25 Degrees C	Std. Units	7	#N/A	7.1	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	<1	#N/A	2.1	#N/A
Barium, Total	ug/L	75.6	#N/A	27	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	<1	#N/A	<1	#N/A
Lead, Total	ug/L	<10	#N/A	<10	#N/A
Lithium, Total	ug/L	<20	#N/A	<20	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	<10	#N/A	<10	#N/A
Molybdenum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Radium-226	pCi/L	3.1	#N/A	0.314	#N/A
Radium-228	pCi/L	1.08	#N/A	<0.341	#N/A
Selenium, Total	ug/L	<1	#N/A	<1	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	4.18	#N/A	0.655	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	306	#N/A	324	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	306	#N/A	324	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Aluminum, Total	ug/L	37.9	#N/A	22.1	#N/A
Boron, Dissolved	ug/L	614	#N/A	1230	#N/A
Bromide	mg/L	0.069	#N/A	0.11	#N/A
Dissolved Organic Carbon	mg/L	3.1	#N/A	2.6	#N/A
Iron, Total	ug/L	5300	#N/A	10500	#N/A
Iron, Ferrous	mg/L	<0.2	#N/A	<0.2	#N/A
Iron, Dissolved	ug/L	4730	#N/A	10000	#N/A
Magnesium, Total	ug/L	53200	#N/A	55600	#N/A
Magnesium, Dissolved	ug/L	50300	#N/A	56300	#N/A
Manganese, Total	ug/L	1080	#N/A	2710	#N/A
Manganese, Dissolved	ug/L	1080	#N/A	2720	#N/A
Nitrogen, Nitrate	mg/L	<0.1	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	<0.1	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	0.47	#N/A	1.1	#N/A
Potassium, Total	ug/L	<1000	#N/A	<1000	#N/A
Potassium, Dissolved	ug/L	<1000	#N/A	<1000	#N/A
Silica, Total	ug/L	16600	#N/A	24300	#N/A
Sodium, Total	ug/L	7920	#N/A	9400	#N/A
Sulfide	mg/L	<0.1	#N/A	<0.1	#N/A
Total Organic Carbon	mg/L	1.5	#N/A	2.1	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-47B (P4R4)	MW-47I (Field Reading)	MW-47I (P4R4)	MW-47A (Field Reading)
Sample Date		11/16/2023	11/1/2023	11/16/2023	11/1/2023
Pace Lab ID		50359882001	0	50359882002	0
Static Water Elevation		#N/A	403.23	#N/A	403.37
Field Parameters					
Temperature, Field	°C	#N/A	30.07	#N/A	14.64
Dissolved Oxygen, Field	mg/L	#N/A	2.09	#N/A	0.01
Conductivity, Field	uS/cm	#N/A	1134.92	#N/A	385.99
ORP, Field	mV	#N/A	-229.80	#N/A	-115.77
pH, Field	S.U.	#N/A	5.16	#N/A	7.28
Turbidity, Field	NTU	#N/A	5.68	#N/A	41.07
Appendix III Constituents					
Boron, Total	ug/L	<100	#N/A	962	#N/A
Calcium, Total	ug/L	192000	#N/A	152000	#N/A
Chloride	mg/L	15.7	#N/A	7.6	#N/A
Fluoride	mg/L	0.11	#N/A	0.12	#N/A
Sulfate	mg/L	43.9	#N/A	323	#N/A
Total Dissolved Solids	mg/L	630	#N/A	676	#N/A
pH at 25 Degrees C	Std. Units	8	#N/A	7.9	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	1.9	#N/A	<1	#N/A
Barium, Total	ug/L	104	#N/A	63.3	#N/A
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	<2	#N/A	<2	#N/A
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	2.5	#N/A	<1	#N/A
Lead, Total	ug/L	<10	#N/A	<10	#N/A
Lithium, Total	ug/L	<20	#N/A	<20	#N/A
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	<10	#N/A	<10	#N/A
Molybdenum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Radium-226	pCi/L	<0.0537	#N/A	0.201	#N/A
Radium-228	pCi/L	<-0.0833	#N/A	<0.44	#N/A
Selenium, Total	ug/L	<1	#N/A	<1	#N/A
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	<0.0537	#N/A	0.641	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	641	#N/A	246	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	641	#N/A	246	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	<10	#N/A	<10	#N/A
Aluminum, Dissolved	ug/L	<10	#N/A	<10	#N/A
Aluminum, Total	ug/L	<10	#N/A	19.7	#N/A
Boron, Dissolved	ug/L	<100	#N/A	958	#N/A
Bromide	mg/L	0.059	#N/A	0.1	#N/A
Dissolved Organic Carbon	mg/L	3.4	#N/A	1.7	#N/A
Iron, Total	ug/L	2440	#N/A	2600	#N/A
Iron, Ferrous	mg/L	<0.2	#N/A	<0.2	#N/A
Iron, Dissolved	ug/L	2250	#N/A	2340	#N/A
Magnesium, Total	ug/L	45700	#N/A	42700	#N/A
Magnesium, Dissolved	ug/L	45900	#N/A	42600	#N/A
Manganese, Total	ug/L	630	#N/A	1410	#N/A
Manganese, Dissolved	ug/L	637	#N/A	1470	#N/A
Nitrogen, Nitrate	mg/L	<0.1	#N/A	<0.1	#N/A
Nitrogen, Nitrite	mg/L	<0.1	#N/A	<0.1	#N/A
Phosphate as P04	mg/L	0.17	#N/A	0.3	#N/A
Potassium, Total	ug/L	<1000	#N/A	1010	#N/A
Potassium, Dissolved	ug/L	<1000	#N/A	1030	#N/A
Silica, Total	ug/L	16500	#N/A	11000	#N/A
Sodium, Total	ug/L	8810	#N/A	8830	#N/A
Sulfide	mg/L	<0.1	#N/A	0.027	#N/A
Total Organic Carbon	mg/L	2.8	#N/A	1.5	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 3
Summary of Monitoring Results - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-47A (P4R4)
Sample Date		11/16/2023
Pace Lab ID		50359882004
Static Water Elevation		#N/A
Field Parameters		
Temperature, Field	°C	#N/A
Dissolved Oxygen, Field	mg/L	#N/A
Conductivity, Field	uS/cm	#N/A
ORP, Field	mV	#N/A
pH, Field	S.U.	#N/A
Turbidity, Field	NTU	#N/A
Appendix III Constituents		
Boron, Total	ug/L	1120
Calcium, Total	ug/L	153000
Chloride	mg/L	6.8
Fluoride	mg/L	<0.1
Sulfate	mg/L	328
Total Dissolved Solids	mg/L	705
pH at 25 Degrees C	Std. Units	7.7
Appendix IV Constituents		
Antimony, Total	ug/L	#N/A
Arsenic, Total	ug/L	2.9
Barium, Total	ug/L	48.2
Beryllium, Total	ug/L	#N/A
Cadmium, Total	ug/L	<2
Chromium, Total	ug/L	#N/A
Cobalt, Total	ug/L	<1
Lead, Total	ug/L	<10
Lithium, Total	ug/L	<20
Mercury	ug/L	#N/A
Molybdenum, Total	ug/L	<10
Molybdenum, Dissolved	ug/L	<10
Radium-226	pCi/L	<0.128
Radium-228	pCi/L	<-0.0207
Selenium, Total	ug/L	<1
Thallium, Total	ug/L	#N/A
Total Radium	pCi/L	<0.128
Geochemical Constituents		
Alkalinity, Total as CaCO3	mg/L	256
Alkalinity,Bicarbonate (CaCO3)	mg/L	256
Alkalinity,Carbonate (CaCO3)	mg/L	<10
Aluminum, Dissolved	ug/L	<10
Aluminum, Total	ug/L	51.5
Boron, Dissolved	ug/L	1100
Bromide	mg/L	0.072
Dissolved Organic Carbon	mg/L	2.2
Iron, Total	ug/L	6950
Iron, Ferrous	mg/L	<0.2
Iron, Dissolved	ug/L	5740
Magnesium, Total	ug/L	45100
Magnesium, Dissolved	ug/L	44800
Manganese, Total	ug/L	438
Manganese, Dissolved	ug/L	431
Nitrogen, Nitrate	mg/L	<0.1
Nitrogen, Nitrite	mg/L	<0.1
Phosphate as P04	mg/L	0.58
Potassium, Total	ug/L	2120
Potassium, Dissolved	ug/L	2040
Silica, Total	ug/L	14800
Sodium, Total	ug/L	8060
Sulfide	mg/L	0.033
Total Organic Carbon	mg/L	1.2

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 4
Summary of Monitoring Results - January 2024
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	AP-2A
Sample Date		1/25/2024
Pace Lab ID		50364397001
Static Water Elevation		404.89
Field Parameters		
Temperature, Field	°C	15.79
Dissolved Oxygen, Field	mg/L	0.03
Conductivity, Field	uS/cm	2850.80
ORP, Field	mV	-239.40
pH, Field	S.U.	7.88
Turbidity, Field	NTU	35.84
Appendix III Constituents		
Boron, Total	ug/L	#N/A
Calcium, Total	ug/L	#N/A
Chloride	mg/L	#N/A
Fluoride	mg/L	#N/A
Sulfate	mg/L	#N/A
Total Dissolved Solids	mg/L	#N/A
pH at 25 Degrees C	Std. Units	#N/A
Appendix IV Constituents		
Antimony, Total	ug/L	#N/A
Arsenic, Total	ug/L	2080
Barium, Total	ug/L	#N/A
Beryllium, Total	ug/L	#N/A
Cadmium, Total	ug/L	#N/A
Chromium, Total	ug/L	#N/A
Cobalt, Total	ug/L	#N/A
Lead, Total	ug/L	#N/A
Lithium, Total	ug/L	#N/A
Mercury	ug/L	#N/A
Molybdenum, Total	ug/L	#N/A
Molybdenum, Dissolved	ug/L	#N/A
Radium-226	pCi/L	#N/A
Radium-228	pCi/L	#N/A
Selenium, Total	ug/L	#N/A
Thallium, Total	ug/L	#N/A
Total Radium	pCi/L	#N/A
Geochemical Constituents		
Alkalinity, Total as CaCO3	mg/L	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	#N/A
Aluminum, Dissolved	ug/L	#N/A
Boron, Dissolved	ug/L	#N/A
Dissolved Organic Carbon	mg/L	#N/A
Iron, Total	ug/L	#N/A
Magnesium, Total	ug/L	#N/A
Magnesium, Dissolved	ug/L	#N/A
Manganese, Total	ug/L	#N/A
Nitrogen, Nitrate	mg/L	#N/A
Phosphate as P04	mg/L	#N/A
Potassium, Total	ug/L	#N/A
Potassium, Dissolved	ug/L	#N/A
Sodium, Total	ug/L	#N/A
Sulfide	mg/L	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Draft Date:1/21/2025

Table 5
Summary of Monitoring Results - February 2024
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	AP-9B (Field Reading)	AP-9B (P4R3)	AP-9I (Field Reading)	AP-9I (P4R3)
Sample Date		2/15/2024	2/15/2024	2/15/2024	2/15/2024
Pace Lab ID		0	50366019001	0	50366019002
Static Water Elevation		408.35	#N/A	408.66	#N/A
Field Parameters					
Temperature, Field	°C	47.84	#N/A	40.98	#N/A
Dissolved Oxygen, Field	mg/L	0.00	#N/A	0.00	#N/A
Conductivity, Field	uS/cm	1881.52	#N/A	2032.31	#N/A
ORP, Field	mV	-42.83	#N/A	-159.16	#N/A
pH, Field	S.U.	6.73	#N/A	7.56	#N/A
Turbidity, Field	NTU	4.18	#N/A	12.02	#N/A
Appendix III Constituents		#N/A	#N/A	#N/A	#N/A
Boron, Total	ug/L	#N/A	8900	#N/A	24100
Calcium, Total	ug/L	#N/A	426000	#N/A	630000
Chloride	mg/L	#N/A	58.80	#N/A	123
Fluoride	mg/L	#N/A	<0.1	#N/A	0.19
Sulfate	mg/L	#N/A	864	#N/A	1470
Total Dissolved Solids	mg/L	#N/A	1830	#N/A	2570
pH at 25 Degrees C	Std. Units	#N/A	7.10	#N/A	7.10
Appendix IV Constituents		#N/A	#N/A	#N/A	#N/A
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	#N/A	4.20	#N/A	6.80
Barium, Total	ug/L	#N/A	47.80	#N/A	30.1
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	#N/A	<2	#N/A	<2
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	#N/A	6.10	#N/A	<1
Lead, Total	ug/L	#N/A	<10	#N/A	<10
Lithium, Total	ug/L	#N/A	<20	#N/A	38.80
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	#N/A	162	#N/A	1740
Molybdenum, Dissolved	ug/L	#N/A	156	#N/A	1700
Radium-226	pCi/L	#N/A	<-0.055	#N/A	<0.242
Radium-228	pCi/L	#N/A	0.93	#N/A	0.71
Selenium, Total	ug/L	#N/A	<1	#N/A	<1
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	#N/A	0.93	#N/A	0.96
Geochemical Constituents		#N/A	#N/A	#N/A	#N/A
Alkalinity, Total as CaCO3	mg/L	#N/A	351	#N/A	51.8
Alkalinity,Bicarbonate (CaCO3)	mg/L	#N/A	351	#N/A	51.8
Alkalinity,Carbonate (CaCO3)	mg/L	#N/A	<10	#N/A	<10
Aluminum, Dissolved	ug/L	#N/A	<10	#N/A	<10
Aluminum, Total	ug/L	#N/A	40	#N/A	78.6
Boron, Dissolved	ug/L	#N/A	8500	#N/A	23500
Bromide	mg/L	#N/A	1.60	#N/A	6.50
Dissolved Organic Carbon	mg/L	#N/A	2.80	#N/A	2.70
Iron, Total	ug/L	#N/A	3980	#N/A	4460
Iron, Ferrous	mg/L	#N/A	4.00	#N/A	4.00
Iron, Dissolved	ug/L	#N/A	3900	#N/A	4140
Magnesium, Total	ug/L	#N/A	51100	#N/A	10800
Magnesium, Dissolved	ug/L	#N/A	49700	#N/A	10400
Manganese, Total	ug/L	#N/A	3850	#N/A	1910
Manganese, Dissolved	ug/L	#N/A	3800	#N/A	1910
Nitrogen, Nitrate	mg/L	#N/A	<0.1	#N/A	<0.1
Nitrogen, Nitrite	mg/L	#N/A	<0.1	#N/A	<0.1
Phosphate as P04	mg/L	#N/A	0.19	#N/A	0.34
Potassium, Total	ug/L	#N/A	9200	#N/A	31600
Potassium, Dissolved	ug/L	#N/A	9050	#N/A	31700
Silica, Total	ug/L	#N/A	17900	#N/A	10100
Sodium, Total	ug/L	#N/A	22500	#N/A	38400
Sulfide	mg/L	#N/A	<0.1	#N/A	<0.1
Total Organic Carbon	mg/L	#N/A	2.60	#N/A	2.00

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well

Table 5
Summary of Monitoring Results - February 2024
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	AP-10B (Field Reading)	AP-10B (P4R3)	AP-10I (Field Reading)	AP-10I (P4R3)
Sample Date		2/13/2024	2/13/2024	2/13/2024	2/13/2024
Pace Lab ID		0	50365772001	0	50365772002
Static Water Elevation		409.28	#N/A	409.20	#N/A
Field Parameters					
Temperature, Field	°C	11.82	#N/A	13.64	#N/A
Dissolved Oxygen, Field	mg/L	5.00	#N/A	0.03	#N/A
Conductivity, Field	uS/cm	548.24	#N/A	1901.27	#N/A
ORP, Field	mV	78.59	#N/A	-168.71	#N/A
pH, Field	S.U.	7.05	#N/A	7.15	#N/A
Turbidity, Field	NTU	37.99	#N/A	22.00	#N/A
Appendix III Constituents		#N/A	#N/A	#N/A	#N/A
Boron, Total	ug/L	#N/A	806	#N/A	14300
Calcium, Total	ug/L	#N/A	135000	#N/A	410000
Chloride	mg/L	#N/A	13.90	#N/A	146
Fluoride	mg/L	#N/A	0.13	#N/A	0.14
Sulfate	mg/L	#N/A	77.70	#N/A	924
Total Dissolved Solids	mg/L	#N/A	489	#N/A	1820
pH at 25 Degrees C	Std. Units	#N/A	7.10	#N/A	7.10
Appendix IV Constituents		#N/A	#N/A	#N/A	#N/A
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	#N/A	<1	#N/A	<1
Barium, Total	ug/L	#N/A	94.4	#N/A	104
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	#N/A	<2	#N/A	<2
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	#N/A	<1	#N/A	<1
Lead, Total	ug/L	#N/A	<10	#N/A	<10
Lithium, Total	ug/L	#N/A	<20	#N/A	29.70
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	#N/A	<10	#N/A	161
Molybdenum, Dissolved	ug/L	#N/A	<10	#N/A	156
Radium-226	pCi/L	#N/A	<-0.0604	#N/A	0.85
Radium-228	pCi/L	#N/A	0.75	#N/A	1.86
Selenium, Total	ug/L	#N/A	1.20	#N/A	<1
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	#N/A	<0.75	#N/A	2.71
Geochemical Constituents		#N/A	#N/A	#N/A	#N/A
Alkalinity, Total as CaCO3	mg/L	#N/A	390	#N/A	186
Alkalinity,Bicarbonate (CaCO3)	mg/L	#N/A	390	#N/A	186
Alkalinity,Carbonate (CaCO3)	mg/L	#N/A	<10	#N/A	<10
Aluminum, Dissolved	ug/L	#N/A	<10	#N/A	<10
Aluminum, Total	ug/L	#N/A	282	#N/A	68.40
Boron, Dissolved	ug/L	#N/A	820	#N/A	14000
Bromide	mg/L	#N/A	0.15	#N/A	2.70
Dissolved Organic Carbon	mg/L	#N/A	1.60	#N/A	3.00
Iron, Total	ug/L	#N/A	692	#N/A	5920
Iron, Ferrous	mg/L	#N/A	<0.2	#N/A	0.23
Iron, Dissolved	ug/L	#N/A	<100	#N/A	5200
Magnesium, Total	ug/L	#N/A	33500	#N/A	52100
Magnesium, Dissolved	ug/L	#N/A	32700	#N/A	49300
Manganese, Total	ug/L	#N/A	28.50	#N/A	3170
Manganese, Dissolved	ug/L	#N/A	<1	#N/A	3140
Nitrogen, Nitrate	mg/L	#N/A	1.60	#N/A	<0.1
Nitrogen, Nitrite	mg/L	#N/A	<0.1	#N/A	<0.1
Phosphate as P04	mg/L	#N/A	<0.15	#N/A	0.40
Potassium, Total	ug/L	#N/A	<1000	#N/A	12200
Potassium, Dissolved	ug/L	#N/A	<1000	#N/A	12200
Silica, Total	ug/L	#N/A	12400	#N/A	13600
Sodium, Total	ug/L	#N/A	17100	#N/A	93500
Sulfide	mg/L	#N/A	<0.1	#N/A	<0.1
Total Organic Carbon	mg/L	#N/A	<1	#N/A	2.20

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have
been collected on a date different than date of well

Table 5
Summary of Monitoring Results - February 2024
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	AP-11B (Field Reading)	AP-11B (P4R3)	AP-11I (Field Reading)	AP-11I (P4R3)
Sample Date		2/14/2024	2/14/2024	2/14/2024	2/14/2024
Pace Lab ID		0	50365894001	0	50365894002
Static Water Elevation		409.12	#N/A	409.09	#N/A
Field Parameters					
Temperature, Field	°C	12.33	#N/A	12.91	#N/A
Dissolved Oxygen, Field	mg/L	0.11	#N/A	0.01	#N/A
Conductivity, Field	uS/cm	736.43	#N/A	222.17	#N/A
ORP, Field	mV	74.37	#N/A	-110.44	#N/A
pH, Field	S.U.	6.49	#N/A	6.83	#N/A
Turbidity, Field	NTU	45.89	#N/A	13.13	#N/A
Appendix III Constituents		#N/A	#N/A	#N/A	#N/A
Boron, Total	ug/L	#N/A	863	#N/A	1100.00
Calcium, Total	ug/L	#N/A	139000	#N/A	177000.00
Chloride	mg/L	#N/A	4.80	#N/A	8.10
Fluoride	mg/L	#N/A	0.15	#N/A	0.12
Sulfate	mg/L	#N/A	344	#N/A	391.00
Total Dissolved Solids	mg/L	#N/A	657	#N/A	871.00
pH at 25 Degrees C	Std. Units	#N/A	6.80	#N/A	6.80
Appendix IV Constituents		#N/A	#N/A	#N/A	#N/A
Antimony, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Arsenic, Total	ug/L	#N/A	<1	#N/A	1.60
Barium, Total	ug/L	#N/A	16.1	#N/A	61.7
Beryllium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cadmium, Total	ug/L	#N/A	<2	#N/A	<2
Chromium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Cobalt, Total	ug/L	#N/A	<1	#N/A	<1
Lead, Total	ug/L	#N/A	<10	#N/A	<10
Lithium, Total	ug/L	#N/A	<20	#N/A	<20
Mercury	ug/L	#N/A	#N/A	#N/A	#N/A
Molybdenum, Total	ug/L	#N/A	<10	#N/A	<10
Molybdenum, Dissolved	ug/L	#N/A	<10	#N/A	<10
Radium-226	pCi/L	#N/A	<0.0554	#N/A	<0.143
Radium-228	pCi/L	#N/A	<0.434	#N/A	<0.405
Selenium, Total	ug/L	#N/A	<1	#N/A	<1
Thallium, Total	ug/L	#N/A	#N/A	#N/A	#N/A
Total Radium	pCi/L	#N/A	<0.489	#N/A	<0.548
Geochemical Constituents		#N/A	#N/A	#N/A	#N/A
Alkalinity, Total as CaCO3	mg/L	#N/A	221	#N/A	308
Alkalinity,Bicarbonate (CaCO3)	mg/L	#N/A	221	#N/A	308
Alkalinity,Carbonate (CaCO3)	mg/L	#N/A	<10	#N/A	<10
Aluminum, Dissolved	ug/L	#N/A	<10	#N/A	126
Aluminum, Total	ug/L	#N/A	221	#N/A	128
Boron, Dissolved	ug/L	#N/A	862	#N/A	1100
Bromide	mg/L	#N/A	<0.05	#N/A	0.09
Dissolved Organic Carbon	mg/L	#N/A	1.40	#N/A	2.50
Iron, Total	ug/L	#N/A	899	#N/A	22200
Iron, Ferrous	mg/L	#N/A	0.32	#N/A	8.80
Iron, Dissolved	ug/L	#N/A	266	#N/A	21500
Magnesium, Total	ug/L	#N/A	49700	#N/A	56500
Magnesium, Dissolved	ug/L	#N/A	49800	#N/A	56100
Manganese, Total	ug/L	#N/A	264	#N/A	6150
Manganese, Dissolved	ug/L	#N/A	264	#N/A	6220
Nitrogen, Nitrate	mg/L	#N/A	<0.1	#N/A	<0.1
Nitrogen, Nitrite	mg/L	#N/A	<0.1	#N/A	<0.1
Phosphate as P04	mg/L	#N/A	0.26	#N/A	1.60
Potassium, Total	ug/L	#N/A	<1000	#N/A	<1000
Potassium, Dissolved	ug/L	#N/A	<1000	#N/A	<1000
Silica, Total	ug/L	#N/A	20300	#N/A	29900
Sodium, Total	ug/L	#N/A	9220	#N/A	8320
Sulfide	mg/L	#N/A	<0.1	#N/A	<0.1
Total Organic Carbon	mg/L	#N/A	1.30	#N/A	2.30

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have
been collected on a date different than date of well

Table 6
Summary of Monitoring Results - May-June 2024
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	AP-1R	AP-2BO	AP-2A	AP-3
Sample Date		5/5/2024	5/7/2024	5/7/2024	5/5/2024
Pace Lab ID		50372277001	50372467001	50372467002	50372277002
Static Water Elevation		412.33	411.11	410.9	412.2
Field Parameters					
Temperature, Field	°C	20.16	17.81	17.60	16.41
Dissolved Oxygen, Field	mg/L	0.29	0.24	0.22	2.79
Conductivity, Field	uS/cm	2451.14	2653.82	3039.85	1181.26
ORP, Field	mV	-109.92	-8.33	-171.71	67.41
pH, Field	S.U.	6.60	6.63	7.44	6.48
Turbidity, Field	NTU	539.27	172.53	3.64	379.58
Appendix III Constituents					
Boron, Total	ug/L	10600	17500	22700	2030
Calcium, Total	ug/L	397000	607000	718000	216000
Chloride	mg/L	119	92.3	214	21.8
Fluoride	mg/L	<0.1	<0.1	0.2	<0.1
Sulfate	mg/L	874	1230	1530	289
Total Dissolved Solids	mg/L	1730	2150	2700	752
pH at 25 Degrees C	Std. Units	7.0	6.7	7.3	7.1
Appendix IV Constituents					
Antimony, Total	ug/L	<1	<1	4.3	<1
Arsenic, Total	ug/L	1.5	5.8	1560	<1
Barium, Total	ug/L	61.7	23.8	48.5	28.2
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	4.3	<2
Chromium, Total	ug/L	<10	<10	<10	<10
Cobalt, Total	ug/L	<1	2.7	<1	<1
Lead, Total	ug/L	<10	<10	<10	<10
Lithium, Total	ug/L	<20	<20	66.8	<20
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	13	574	1120	<10
Molybdenum, Dissolved	ug/L	13.7	608	1090	<10
Radium-226	pCi/L	<-0.202	<-0.785	<0.261	<-0.355
Radium-228	pCi/L	0.741	0.467	1.6	<0.447
Selenium, Total	ug/L	<1	<1	2.3	<1
Thallium, Total	ug/L	<1	<1	<1	<1
Total Radium	pCi/L	<0.741	<0.467	1.86	<0.447
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	300	176	47.4	367
Alkalinity,Bicarbonate (CaCO3)	mg/L	#N/A	#N/A	#N/A	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	#N/A	#N/A	#N/A	#N/A
Aluminum, Dissolved	ug/L	<10	<10	<10	<10
Boron, Dissolved	ug/L	10800	18600	24100	2050
Dissolved Organic Carbon	mg/L	3.9	3.3	3.5	<1
Iron, Total	ug/L	10700	201	4500	<100
Magnesium, Total	ug/L	59800	28600	9300	37900
Magnesium, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A
Manganese, Total	ug/L	9070	2600	943	73
Nitrogen, Nitrate	mg/L	<0.1	<0.1	<0.1	4.9
Phosphate as P04	mg/L	2.2	<0.15	2.1	<0.15
Potassium, Total	ug/L	1390	10800	41100	2100
Potassium, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A
Sodium, Total	ug/L	58700	29400	48000	15800
Sulfide	mg/L	<0.1	<0.1	0.62	<0.1

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 6
Summary of Monitoring Results - May-June 2024
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	AP-3A	AP-4B	AP-4I	AP-4A
Sample Date		5/6/2024	5/8/2024	5/6/2024	5/6/2024
Pace Lab ID		50372337001	50372593001	50372337004	50372337003
Static Water Elevation		411.33	411.66	411.67	411.62
Field Parameters					
Temperature, Field	°C	17.50	15.12	16.31	17.01
Dissolved Oxygen, Field	mg/L	1.80	4.86	0.13	0.23
Conductivity, Field	uS/cm	3413.43	1016.33	3362.66	3405.48
ORP, Field	mV	-81.80	178.92	-13.03	-76.92
pH, Field	S.U.	6.83	6.14	6.62	6.79
Turbidity, Field	NTU	42.62	0.00	0.00	369.04
Appendix III Constituents					
Boron, Total	ug/L	28900	425	11900	22200
Calcium, Total	ug/L	705000	162000	729000	651000
Chloride	mg/L	194	12.9	110	148
Fluoride	mg/L	<0.1	<0.1	0.18	<0.1
Sulfate	mg/L	1710	92.6	1690	1720
Total Dissolved Solids	mg/L	2730	627	2560	2650
pH at 25 Degrees C	Std. Units	5.7	7.2	6.4	6.3
Appendix IV Constituents					
Antimony, Total	ug/L	<1	<1	<1	<1
Arsenic, Total	ug/L	1.6	<1	<1	<1
Barium, Total	ug/L	32.7	99.2	24.5	28.3
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10
Cobalt, Total	ug/L	<1	<1	2.1	<1
Lead, Total	ug/L	<10	<10	<10	<10
Lithium, Total	ug/L	<20	<20	<20	35.2
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	517	<10	83.3	215
Molybdenum, Dissolved	ug/L	558	<10	89	230
Radium-226	pCi/L	<0.196	<0.0624	<0.26	0.343
Radium-228	pCi/L	0.833	<0.289	0.637	1.34
Selenium, Total	ug/L	<1	17.2	<1	<1
Thallium, Total	ug/L	<1	<1	<1	<1
Total Radium	pCi/L	1.03	<0.351	0.897	1.68
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	60	358	137	131
Alkalinity,Bicarbonate (CaCO3)	mg/L	#N/A	#N/A	#N/A	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	#N/A	#N/A	#N/A	#N/A
Aluminum, Dissolved	ug/L	<10	<10	<10	<10
Boron, Dissolved	ug/L	30900	425	12400	23300
Dissolved Organic Carbon	mg/L	3.6	3.9	2.2	2.4
Iron, Total	ug/L	6830	<100	1310	6820
Magnesium, Total	ug/L	22800	33700	36500	73800
Magnesium, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A
Manganese, Total	ug/L	2740	<1	4870	3840
Nitrogen, Nitrate	mg/L	<0.1	20	<0.1	<0.1
Phosphate as P04	mg/L	0.15	<0.15	<0.15	0.19
Potassium, Total	ug/L	14800	<1000	6390	17100
Potassium, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A
Sodium, Total	ug/L	48500	8190	31700	50200
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 6
Summary of Monitoring Results - May-June 2024
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	AP-5	AP-5A	AP-6B	AP-6A
Sample Date		5/8/2024	5/8/2024	5/12/2024	5/8/2024
Pace Lab ID		50372593002	50372593005	50372947001	50372593006
Static Water Elevation		411.36	411.46	412.1	411.99
Field Parameters					
Temperature, Field	°C	15.53	16.64	13.48	14.61
Dissolved Oxygen, Field	mg/L	0.35	0.17	6.07	0.15
Conductivity, Field	uS/cm	846.39	2768.55	908.92	1600.55
ORP, Field	mV	122.39	-97.45	206.75	-67.27
pH, Field	S.U.	6.49	6.71	6.58	6.37
Turbidity, Field	NTU	0.00	84.59	0.00	823.07
Appendix III Constituents					
Boron, Total	ug/L	960	10200	817	2540
Calcium, Total	ug/L	138000	641000	158000	301000
Chloride	mg/L	5.8	56.7	5.2	20.7
Fluoride	mg/L	0.14	<0.1	0.13	<0.1
Sulfate	mg/L	125	1680	258	605
Total Dissolved Solids	mg/L	554	2770	631	1260
pH at 25 Degrees C	Std. Units	7.2	6.8	7.4	6.9
Appendix IV Constituents					
Antimony, Total	ug/L	<1	<1	<1	<1
Arsenic, Total	ug/L	<1	<1	<1	<1
Barium, Total	ug/L	20.7	23.8	23.4	21.6
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10
Cobalt, Total	ug/L	<1	<1	<1	<1
Lead, Total	ug/L	<10	<10	<10	<10
Lithium, Total	ug/L	<20	<20	<20	<20
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	39	455	<10	<10
Molybdenum, Dissolved	ug/L	37.9	453	<10	<10
Radium-226	pCi/L	<0.0957	1.12	<0.197	0.577
Radium-228	pCi/L	<0.275	<0.361	0.382	0.46
Selenium, Total	ug/L	2.4	<1	5	<1
Thallium, Total	ug/L	<1	<1	<1	<1
Total Radium	pCi/L	<0.371	1.48	<0.579	1.04
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	307	98.2	247	362
Alkalinity,Bicarbonate (CaCO3)	mg/L	#N/A	#N/A	#N/A	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	#N/A	#N/A	#N/A	#N/A
Aluminum, Dissolved	ug/L	<10	<10	<10	<10
Boron, Dissolved	ug/L	1020	10100	831	2530
Dissolved Organic Carbon	mg/L	2.7	4.6	2.2	6.2
Iron, Total	ug/L	<100	11400	<100	10300
Magnesium, Total	ug/L	27400	49700	30600	76500
Magnesium, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A
Manganese, Total	ug/L	168	2150	<1	964
Nitrogen, Nitrate	mg/L	5.9	<0.1	0.81	<0.1
Phosphate as P04	mg/L	<0.15	0.32	<0.15	0.38
Potassium, Total	ug/L	3760	4290	<1000	2160
Potassium, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A
Sodium, Total	ug/L	7870	61100	6580	17000
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 6
Summary of Monitoring Results - May-June 2024
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	AP-7	AP-8	AP-9B	AP-9I
Sample Date		5/9/2024	5/9/2024	5/7/2024	5/7/2024
Pace Lab ID		50372772001	50372772002	50372469001	50372469002
Static Water Elevation		424.56	437.97	410.98	411.58
Field Parameters					
Temperature, Field	°C	18.05	14.28	19.25	19.21
Dissolved Oxygen, Field	mg/L	0.97	0.16	0.05	0.09
Conductivity, Field	uS/cm	1355.36	1567.71	2069.86	2890.23
ORP, Field	mV	-45.92	83.37	-39.54	-168.76
pH, Field	S.U.	6.08	4.85	6.77	7.58
Turbidity, Field	NTU	284.82	699.87	5.80	11.54
Appendix III Constituents					
Boron, Total	ug/L	225	847	8040	24800
Calcium, Total	ug/L	221000	169000	386000	661000
Chloride	mg/L	4.5	24.8	51.5	128
Fluoride	mg/L	0.14	0.81	<0.1	0.28
Sulfate	mg/L	332	822	801	1560
Total Dissolved Solids	mg/L	1050	1400	1620	2330
pH at 25 Degrees C	Std. Units	6.8	6.1	6.9	7.1
Appendix IV Constituents					
Antimony, Total	ug/L	<1	<1	<1	<1
Arsenic, Total	ug/L	1.7	7.8	3.2	7.3
Barium, Total	ug/L	78.9	21.1	46	31.5
Beryllium, Total	ug/L	<0.2	2.1	<0.2	<0.2
Cadmium, Total	ug/L	<2	6.2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10
Cobalt, Total	ug/L	<1	415	5.1	<1
Lead, Total	ug/L	<10	<10	<10	<10
Lithium, Total	ug/L	<20	43.6	<20	44
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	<10	<10	148	1600
Molybdenum, Dissolved	ug/L	<10	<10	167	1860
Radium-226	pCi/L	<0	0.329	<0.108	0.846
Radium-228	pCi/L	0.434	0.851	0.421	0.669
Selenium, Total	ug/L	<1	1.3	<1	<1
Thallium, Total	ug/L	<1	<1	<1	<1
Total Radium	pCi/L	<0.434	1.18	<0.529	1.52
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	503	56.4	355	50.8
Alkalinity,Bicarbonate (CaCO3)	mg/L	#N/A	#N/A	#N/A	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	#N/A	#N/A	#N/A	#N/A
Aluminum, Dissolved	ug/L	<10	1060	<10	<10
Boron, Dissolved	ug/L	238	871	8530	27500
Dissolved Organic Carbon	mg/L	4.6	6	5.2	2.3
Iron, Total	ug/L	21200	169000	2600	4200
Magnesium, Total	ug/L	64000	43200	60400	10300
Magnesium, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A
Manganese, Total	ug/L	1570	10700	4080	2000
Nitrogen, Nitrate	mg/L	<0.1	<0.1	<0.1	<0.1
Phosphate as P04	mg/L	0.35	<0.15	<0.15	0.3
Potassium, Total	ug/L	2470	5310	7950	31600
Potassium, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A
Sodium, Total	ug/L	11200	14600	23900	38100
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 6
Summary of Monitoring Results - May-June 2024
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	AP-9A	AP-10B	AP-10I	AP-10A
Sample Date		5/8/2024	5/10/2024	5/9/2024	5/9/2024
Pace Lab ID		50372540004	50372872001	50372699004	50372699001
Static Water Elevation		410.92	411.42	411.31	410.63
Field Parameters					
Temperature, Field	°C	19.06	14.58	15.80	15.33
Dissolved Oxygen, Field	mg/L	0.48	5.56	0.02	0.00
Conductivity, Field	uS/cm	3308.64	883.18	2413.74	3123.93
ORP, Field	mV	-135.92	83.91	-147.08	-176.66
pH, Field	S.U.	7.40	5.67	5.74	6.01
Turbidity, Field	NTU	4.47	0.00	0.00	0.00
Appendix III Constituents					
Boron, Total	ug/L	34100	567	14400	28700
Calcium, Total	ug/L	702000	126000	428000	729000
Chloride	mg/L	196	13.1	164	170
Fluoride	mg/L	0.21	0.13	0.12	<0.1
Sulfate	mg/L	1710	65.5	998	1780
Total Dissolved Solids	mg/L	2860	481	1980	2980
pH at 25 Degrees C	Std. Units	6.3	7.1	6.9	6.8
Appendix IV Constituents					
Antimony, Total	ug/L	<1	<1	<1	<1
Arsenic, Total	ug/L	1.4	<1	<1	1.2
Barium, Total	ug/L	38.7	87.6	76.6	31
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10
Cobalt, Total	ug/L	<1	<1	<1	<1
Lead, Total	ug/L	<10	<10	<10	<10
Lithium, Total	ug/L	<20	<20	22.5	<20
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	1540	<10	140	504
Molybdenum, Dissolved	ug/L	1650	<10	145	513
Radium-226	pCi/L	<-0.247	<-0.0649	<0.364	0.359
Radium-228	pCi/L	1.02	0.78	0.744	0.814
Selenium, Total	ug/L	<1	1.7	<1	<1
Thallium, Total	ug/L	<1	<1	<1	<1
Total Radium	pCi/L	1.02	<0.78	1.11	1.17
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	68.4	321	225	53.4
Alkalinity,Bicarbonate (CaCO3)	mg/L	68.4	321	225	53.4
Alkalinity,Carbonate (CaCO3)	mg/L	<10	<10	<10	<10
Aluminum, Dissolved	ug/L	<10	<10	<10	<10
Boron, Dissolved	ug/L	37100	613	15400	28900
Dissolved Organic Carbon	mg/L	2.3	1.2	3.5	2.4
Iron, Total	ug/L	5580	<100	5950	7550
Magnesium, Total	ug/L	13400	30700	49600	11300
Magnesium, Dissolved	ug/L	14300	33300	54700	11700
Manganese, Total	ug/L	1500	<1	3140	2590
Nitrogen, Nitrate	mg/L	<0.1	1.4	<0.1	<0.1
Phosphate as P04	mg/L	0.36	<0.15	0.34	0.16
Potassium, Total	ug/L	33300	<1000	12300	15500
Potassium, Dissolved	ug/L	35800	<1000	12100	15800
Sodium, Total	ug/L	41900	14300	83700	49200
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 6
Summary of Monitoring Results - May-June 2024
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	AP-11B	AP-11I	AP-11A	MW-2R (Field Reading)
Sample Date		5/20/2024	5/13/2024	5/13/2024	5/2/2024
Pace Lab ID		50373676001	50373018002	50373018001	0
Static Water Elevation		412.83	412.82	412.06	440.12
Field Parameters					
Temperature, Field	°C	15.54	15.79	15.69	21.67
Dissolved Oxygen, Field	mg/L	0.00	0.08	0.03	0.23
Conductivity, Field	uS/cm	1146.84	1256.91	1618.12	3484.44
ORP, Field	mV	53.38	-148.21	-150.22	-75.62
pH, Field	S.U.	5.38	5.51	5.57	6.66
Turbidity, Field	NTU	9.25	6.92	8.15	300.46
Appendix III Constituents					
Boron, Total	ug/L	804	1060	509	#N/A
Calcium, Total	ug/L	160000	180000	242000	#N/A
Chloride	mg/L	4.8	9.3	7.5	#N/A
Fluoride	mg/L	0.12	<0.1	0.11	#N/A
Sulfate	mg/L	404	410	647	#N/A
Total Dissolved Solids	mg/L	805	884	1210	#N/A
pH at 25 Degrees C	Std. Units	7.1	7	7.1	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	<1	<1	<1	#N/A
Arsenic, Total	ug/L	<1	1.4	<1	#N/A
Barium, Total	ug/L	15.9	57.4	32.3	#N/A
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	#N/A
Cadmium, Total	ug/L	<2	<2	<2	#N/A
Chromium, Total	ug/L	<10	<10	<10	#N/A
Cobalt, Total	ug/L	<1	<1	<1	#N/A
Lead, Total	ug/L	<10	<10	<10	#N/A
Lithium, Total	ug/L	<20	<20	<20	#N/A
Mercury	ug/L	<0.2	<0.2	<0.2	#N/A
Molybdenum, Total	ug/L	<10	<10	<10	#N/A
Molybdenum, Dissolved	ug/L	<10	<10	<10	#N/A
Radium-226	pCi/L	<0.12	<0.41	<0.18	#N/A
Radium-228	pCi/L	0.866	0.724	0.445	#N/A
Selenium, Total	ug/L	<1	<1	<1	#N/A
Thallium, Total	ug/L	<1	<1	<1	#N/A
Total Radium	pCi/L	0.986	1.13	0.625	#N/A
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	283	317	309	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	283	317	309	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	<10	<10	<10	#N/A
Aluminum, Dissolved	ug/L	17.8	<10	<10	#N/A
Boron, Dissolved	ug/L	821	1050	543	#N/A
Dissolved Organic Carbon	mg/L	1.2	1.8	1.5	#N/A
Iron, Total	ug/L	375	18800	14200	#N/A
Magnesium, Total	ug/L	55200	54800	78200	#N/A
Magnesium, Dissolved	ug/L	50400	53300	76300	#N/A
Manganese, Total	ug/L	319	5690	808	#N/A
Nitrogen, Nitrate	mg/L	<0.1	<0.1	<0.1	#N/A
Phosphate as P04	mg/L	<0.15	1.3	1.2	#N/A
Potassium, Total	ug/L	<1000	<1000	1420	#N/A
Potassium, Dissolved	ug/L	<1000	<1000	1420	#N/A
Sodium, Total	ug/L	9370	8570	14700	#N/A
Sulfide	mg/L	<0.1	<0.1	<0.1	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 6
Summary of Monitoring Results - May-June 2024
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-2R (P1R1)	MW-2R (P2R1)	MW-3 (Field Reading)	MW-3 (P1R1)
Sample Date		5/2/2024	5/2/2024	5/12/2024	5/12/2024
Pace Lab ID		50372196001	50372174001	0	50372953003
Static Water Elevation		#N/A	#N/A	440.48	#N/A
Field Parameters					
Temperature, Field	°C	#N/A	#N/A	16.77	#N/A
Dissolved Oxygen, Field	mg/L	#N/A	#N/A	0.24	#N/A
Conductivity, Field	uS/cm	#N/A	#N/A	2749.66	#N/A
ORP, Field	mV	#N/A	#N/A	-89.99	#N/A
pH, Field	S.U.	#N/A	#N/A	7.08	#N/A
Turbidity, Field	NTU	#N/A	#N/A	300.99	#N/A
Appendix III Constituents					
Boron, Total	ug/L	1730	1860	#N/A	842
Calcium, Total	ug/L	505000	514000	#N/A	390000
Chloride	mg/L	80	76.2	#N/A	52.7
Fluoride	mg/L	<0.1	<0.1	#N/A	<0.1
Sulfate	mg/L	1620	1650	#N/A	1250
Total Dissolved Solids	mg/L	2310	2620	#N/A	2120
pH at 25 Degrees C	Std. Units	#N/A	7.3	#N/A	#N/A
Appendix IV Constituents					
Antimony, Total	ug/L	<1	<1	#N/A	2.4
Arsenic, Total	ug/L	20.7	10.8	#N/A	263
Barium, Total	ug/L	77.9	53.6	#N/A	72.9
Beryllium, Total	ug/L	0.21	<0.2	#N/A	<0.2
Cadmium, Total	ug/L	<2	<2	#N/A	<2
Chromium, Total	ug/L	<10	<10	#N/A	<10
Cobalt, Total	ug/L	3.7	3.3	#N/A	1.9
Lead, Total	ug/L	<10	<10	#N/A	<10
Lithium, Total	ug/L	804	778	#N/A	1600
Mercury	ug/L	<0.2	<0.2	#N/A	<0.2
Molybdenum, Total	ug/L	10.1	10.4	#N/A	414
Molybdenum, Dissolved	ug/L	#N/A	10	#N/A	#N/A
Radium-226	pCi/L	0.527	0.432	#N/A	0.53
Radium-228	pCi/L	1.13	1.26	#N/A	0.967
Selenium, Total	ug/L	1.5	<1	#N/A	<1
Thallium, Total	ug/L	<1	<1	#N/A	<1
Total Radium	pCi/L	1.66	1.69	#N/A	1.5
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	#N/A	139	#N/A	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	#N/A	#N/A	#N/A	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	#N/A	#N/A	#N/A	#N/A
Aluminum, Dissolved	ug/L	#N/A	<10	#N/A	#N/A
Boron, Dissolved	ug/L	#N/A	1770	#N/A	#N/A
Dissolved Organic Carbon	mg/L	#N/A	3.3	#N/A	#N/A
Iron, Total	ug/L	21400	15500	#N/A	<100
Magnesium, Total	ug/L	#N/A	60300	#N/A	#N/A
Magnesium, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A
Manganese, Total	ug/L	6250	6870	#N/A	2140
Nitrogen, Nitrate	mg/L	#N/A	<0.1	#N/A	#N/A
Phosphate as P04	mg/L	#N/A	<1.5	#N/A	#N/A
Potassium, Total	ug/L	#N/A	103000	#N/A	#N/A
Potassium, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A
Sodium, Total	ug/L	#N/A	112000	#N/A	#N/A
Sulfide	mg/L	#N/A	<0.1	#N/A	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 6
Summary of Monitoring Results - May-June 2024
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-3 (P2R1)	MW-4C (Field Reading)	MW-4C (P1R1)	MW-4C (P2R1)
Sample Date		5/12/2024	5/12/2024	5/12/2024	5/12/2024
Pace Lab ID		50372949003	0	50372953001	50372949001
Static Water Elevation		#N/A	448.46	#N/A	#N/A
Field Parameters					
Temperature, Field	°C	#N/A	17.73	#N/A	#N/A
Dissolved Oxygen, Field	mg/L	#N/A	0.92	#N/A	#N/A
Conductivity, Field	uS/cm	#N/A	2871.72	#N/A	#N/A
ORP, Field	mV	#N/A	140.62	#N/A	#N/A
pH, Field	S.U.	#N/A	6.59	#N/A	#N/A
Turbidity, Field	NTU	#N/A	847.85	#N/A	#N/A
Appendix III Constituents					
Boron, Total	ug/L	863	#N/A	3940	3970
Calcium, Total	ug/L	430000	#N/A	574000	622000
Chloride	mg/L	52.4	#N/A	43.5	44.3
Fluoride	mg/L	<0.1	#N/A	0.24	0.23
Sulfate	mg/L	1260	#N/A	1440	1340
Total Dissolved Solids	mg/L	2080	#N/A	2420	2640
pH at 25 Degrees C	Std. Units	8.5	#N/A	#N/A	6.8
Appendix IV Constituents					
Antimony, Total	ug/L	2.1	#N/A	<1	<1
Arsenic, Total	ug/L	234	#N/A	<1	<1
Barium, Total	ug/L	70.5	#N/A	27.5	27.4
Beryllium, Total	ug/L	<0.2	#N/A	<0.2	<0.2
Cadmium, Total	ug/L	<2	#N/A	<2	<2
Chromium, Total	ug/L	<10	#N/A	<10	<10
Cobalt, Total	ug/L	1.9	#N/A	1.2	1.1
Lead, Total	ug/L	<10	#N/A	<10	<10
Lithium, Total	ug/L	1620	#N/A	366	350
Mercury	ug/L	<0.2	#N/A	<0.2	<0.2
Molybdenum, Total	ug/L	426	#N/A	<10	<10
Molybdenum, Dissolved	ug/L	433	#N/A	#N/A	10.1
Radium-226	pCi/L	0.642	#N/A	<0.115	<0
Radium-228	pCi/L	<0.288	#N/A	<0.431	0.995
Selenium, Total	ug/L	<1	#N/A	<1	<1
Thallium, Total	ug/L	<1	#N/A	<1	<1
Total Radium	pCi/L	0.93	#N/A	<0.546	0.995
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	98.4	#N/A	#N/A	429
Alkalinity,Bicarbonate (CaCO3)	mg/L	#N/A	#N/A	#N/A	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	#N/A	#N/A	#N/A	#N/A
Aluminum, Dissolved	ug/L	<10	#N/A	#N/A	<10
Boron, Dissolved	ug/L	879	#N/A	#N/A	4100
Dissolved Organic Carbon	mg/L	1.3	#N/A	#N/A	2.3
Iron, Total	ug/L	<100	#N/A	<100	<100
Magnesium, Total	ug/L	9050	#N/A	#N/A	51600
Magnesium, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A
Manganese, Total	ug/L	2260	#N/A	2650	2670
Nitrogen, Nitrate	mg/L	<0.1	#N/A	#N/A	<0.1
Phosphate as P04	mg/L	0.45	#N/A	#N/A	<0.15
Potassium, Total	ug/L	221000	#N/A	#N/A	64900
Potassium, Dissolved	ug/L	#N/A	#N/A	#N/A	#N/A
Sodium, Total	ug/L	90600	#N/A	#N/A	84100
Sulfide	mg/L	<0.5	#N/A	#N/A	<0.1

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 6
Summary of Monitoring Results - May-June 2024
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-19B	MW-19I	MW-19A	MW-20B
Sample Date		5/8/2024	5/8/2024	5/8/2024	5/24/2024
Pace Lab ID		50372540003	50372540002	50372540001	50374203001
Static Water Elevation		410.56	410.34	410.34	410.5
Field Parameters					
Temperature, Field	°C	15.74	17.76	16.72	14.47
Dissolved Oxygen, Field	mg/L	6.71	0.05	0.01	1.36
Conductivity, Field	uS/cm	672.02	750.48	2770.54	894.81
ORP, Field	mV	81.99	22.90	-121.21	147.66
pH, Field	S.U.	7.18	7.19	7.07	6.74
Turbidity, Field	NTU	0.00	0.85	2.36	0.00
Appendix III Constituents					
Boron, Total	ug/L	390	712	24500	468
Calcium, Total	ug/L	102000	115000	566000	166000
Chloride	mg/L	7.3	9.8	123	16.2
Fluoride	mg/L	0.11	<0.1	<0.1	<0.1
Sulfate	mg/L	47.2	52.6	1390	56.9
Total Dissolved Solids	mg/L	357	411	2330	552
pH at 25 Degrees C	Std. Units	7.2	7.3	7.2	7.4
Appendix IV Constituents					
Antimony, Total	ug/L	<1	<1	<1	<1
Arsenic, Total	ug/L	<1	<1	<1	<1
Barium, Total	ug/L	58.6	64	31.2	100
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10
Cobalt, Total	ug/L	<1	1.6	<1	<1
Lead, Total	ug/L	<10	<10	<10	<10
Lithium, Total	ug/L	<20	<20	<20	<20
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	<10	<10	822	<10
Molybdenum, Dissolved	ug/L	<10	<10	890	<10
Radium-226	pCi/L	<0.0621	0.424	0.728	<-0.116
Radium-228	pCi/L	<0.00793	4.11	1.46	<0.477
Selenium, Total	ug/L	2.6	<1	<1	9.4
Thallium, Total	ug/L	<1	<1	<1	<1
Total Radium	pCi/L	<0.07	4.53	2.19	<0.477
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	299	347	114	470
Alkalinity,Bicarbonate (CaCO3)	mg/L	299	347	114	470
Alkalinity,Carbonate (CaCO3)	mg/L	<10	<10	<10	<10
Aluminum, Dissolved	ug/L	<10	<10	<10	<10
Boron, Dissolved	ug/L	449	832	26200	468
Dissolved Organic Carbon	mg/L	1.3	1.4	2.1	1.1
Iron, Total	ug/L	<100	<100	8540	<100
Magnesium, Total	ug/L	20500	26300	25000	27200
Magnesium, Dissolved	ug/L	22500	28300	26600	26300
Manganese, Total	ug/L	3.1	2090	1790	2
Nitrogen, Nitrate	mg/L	4.2	<0.1	<0.1	3.9
Phosphate as P04	mg/L	0.16	<0.15	0.27	<0.15
Potassium, Total	ug/L	1780	<1000	12700	<1000
Potassium, Dissolved	ug/L	2070	<1000	13900	<1000
Sodium, Total	ug/L	6520	7840	45300	11500
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 6
Summary of Monitoring Results - May-June 2024
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-20I	MW-20A	MW-21B	MW-21I
Sample Date		5/24/2024	4/30/2024	5/9/2024	5/9/2024
Pace Lab ID		50374203002	0	50372699007	50372699006
Static Water Elevation		410.51	410.5	410.77	410.75
Field Parameters					
Temperature, Field	°C	15.02	Not Sampled (Became Inaccessible During Event)	17.59	17.78
Dissolved Oxygen, Field	mg/L	0.05		0.22	3.46
Conductivity, Field	uS/cm	753.49		1727.10	1611.98
ORP, Field	mV	131.73		33.32	-90.37
pH, Field	S.U.	7.10		6.74	7.09
Turbidity, Field	NTU	8.61		3.42	35.03
Appendix III Constituents					
Boron, Total	ug/L	284		769	2330
Calcium, Total	ug/L	121000		274000	262000
Chloride	mg/L	8.9		58.7	74.3
Fluoride	mg/L	<0.1		<0.1	0.23
Sulfate	mg/L	39.2		479	457
Total Dissolved Solids	mg/L	382		1240	1140
pH at 25 Degrees C	Std. Units	7.5		6.9	6.9
Appendix IV Constituents					
Antimony, Total	ug/L	<1		<1	<1
Arsenic, Total	ug/L	<1		<1	<1
Barium, Total	ug/L	47.1		55.3	46.1
Beryllium, Total	ug/L	<0.2		<0.2	<0.2
Cadmium, Total	ug/L	<2		<2	<2
Chromium, Total	ug/L	<10		<10	<10
Cobalt, Total	ug/L	1.2		2.7	<1
Lead, Total	ug/L	<10		<10	<10
Lithium, Total	ug/L	<20		<20	<20
Mercury	ug/L	<0.2		<0.2	<0.2
Molybdenum, Total	ug/L	<10		<10	109
Molybdenum, Dissolved	ug/L	<10		<10	113
Radium-226	pCi/L	<0.376		0.546	0.591
Radium-228	pCi/L	0.813		<0.287	0.852
Selenium, Total	ug/L	3.5		<1	<1
Thallium, Total	ug/L	<1		<1	<1
Total Radium	pCi/L	1.19		<0.833	1.44
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	353		451	349
Alkalinity,Bicarbonate (CaCO3)	mg/L	353		451	349
Alkalinity,Carbonate (CaCO3)	mg/L	<10		<10	<10
Aluminum, Dissolved	ug/L	<10		<10	<10
Boron, Dissolved	ug/L	264		814	2390
Dissolved Organic Carbon	mg/L	<1		3	2.8
Iron, Total	ug/L	<100		352	5660
Magnesium, Total	ug/L	26600		61800	38200
Magnesium, Dissolved	ug/L	24200		64400	39200
Manganese, Total	ug/L	1650		4000	1300
Nitrogen, Nitrate	mg/L	1.2		0.2	<0.1
Phosphate as P04	mg/L	<0.15		<0.15	1
Potassium, Total	ug/L	<1000		1990	9120
Potassium, Dissolved	ug/L	<1000		1940	9120
Sodium, Total	ug/L	4850		34000	41500
Sulfide	mg/L	<0.1		<0.1	<0.1

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 6
Summary of Monitoring Results - May-June 2024
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-21A	MW-25B	MW-25I	MW-25A
Sample Date		5/9/2024	5/20/2024	5/21/2024	5/20/2024
Pace Lab ID		50372699005	50373676003	50373786001	50373676002
Static Water Elevation		410.67	410.64	410.74	410.75
Field Parameters					
Temperature, Field	°C	21.29	17.39	16.68	16.43
Dissolved Oxygen, Field	mg/L	0.06	0.01	0.01	0.03
Conductivity, Field	uS/cm	2661.57	1923.05	2743.93	2787.52
ORP, Field	mV	-138.76	-61.89	-118.67	-121.45
pH, Field	S.U.	7.33	7.04	7.13	7.11
Turbidity, Field	NTU	23.50	40.90	11.06	44.55
Appendix III Constituents					
Boron, Total	ug/L	11500	9220	14500	13500
Calcium, Total	ug/L	522000	382000	517000	509000
Chloride	mg/L	91.6	36.2	54.8	55.2
Fluoride	mg/L	0.19	0.15	<0.1	<0.1
Sulfate	mg/L	1390	786	1330	1630
Total Dissolved Solids	mg/L	2250	1510	2280	2450
pH at 25 Degrees C	Std. Units	6.8	7	7.1	6.9
Appendix IV Constituents					
Antimony, Total	ug/L	<1	<1	<1	<1
Arsenic, Total	ug/L	2	<1	<1	<1
Barium, Total	ug/L	30.5	56.9	20.5	18.5
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10
Cobalt, Total	ug/L	<1	1.2	<1	<1
Lead, Total	ug/L	<10	<10	<10	<10
Lithium, Total	ug/L	72.7	<20	<20	<20
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	177	<10	35.4	13.4
Molybdenum, Dissolved	ug/L	187	<10	34.5	11.8
Radium-226	pCi/L	<0.445	<0.181	<0.124	<-0.302
Radium-228	pCi/L	<0.412	<0.075	0.57	<0.138
Selenium, Total	ug/L	<1	<1	<1	<1
Thallium, Total	ug/L	<1	<1	<1	<1
Total Radium	pCi/L	<0.857	<0.256	<0.694	<0.138
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	111	250	149	157
Alkalinity,Bicarbonate (CaCO3)	mg/L	111	250	149	157
Alkalinity,Carbonate (CaCO3)	mg/L	<10	<10	<10	<10
Aluminum, Dissolved	ug/L	<10	<10	<10	<10
Boron, Dissolved	ug/L	12300	9370	14700	13100
Dissolved Organic Carbon	mg/L	2.8	<1	1.5	1.2
Iron, Total	ug/L	6280	1950	11200	13900
Magnesium, Total	ug/L	38400	46800	91100	125000
Magnesium, Dissolved	ug/L	42600	46500	93600	118000
Manganese, Total	ug/L	857	1370	1550	1750
Nitrogen, Nitrate	mg/L	<0.1	0.19	<0.1	<0.1
Phosphate as P04	mg/L	0.99	<0.15	1.3	0.34
Potassium, Total	ug/L	18400	2090	2740	1940
Potassium, Dissolved	ug/L	18900	2020	2680	1900
Sodium, Total	ug/L	59700	17300	19100	19400
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 6
Summary of Monitoring Results - May-June 2024
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-26B	MW-26I	MW-26A	MW-27B
Sample Date		6/11/2024	6/10/2024	6/10/2024	6/11/2024
Pace Lab ID		50375622001	50375493002	50375493001	50375622002
Static Water Elevation		410.01	410.00	409.96	409.68
Field Parameters					
Temperature, Field	°C	13.66	14.55	16.82	18.03
Dissolved Oxygen, Field	mg/L	0.00	2.70	0.10	0.43
Conductivity, Field	uS/cm	1243.43	1580.67	2500.23	2182.73
ORP, Field	mV	174.58	-132.42	-120.54	-139.16
pH, Field	S.U.	5.83	6.30	7.25	6.94
Turbidity, Field	NTU	3.69	24.02	39.48	47.94
Appendix III Constituents					
Boron, Total	ug/L	1760	8370	21700	7160
Calcium, Total	ug/L	199000	277000	542000	260000
Chloride	mg/L	33.7	63.2	109	187
Fluoride	mg/L	<0.1	<0.1	<0.1	0.15
Sulfate	mg/L	227	547	1320	153
Total Dissolved Solids	mg/L	772	1140	2170	1190
pH at 25 Degrees C	Std. Units	8	7	7.1	7.3
Appendix IV Constituents					
Antimony, Total	ug/L	<1	<1	<1	<1
Arsenic, Total	ug/L	<1	1.4	1.9	37
Barium, Total	ug/L	22.1	32.4	30	504
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10
Cobalt, Total	ug/L	1.4	<1	1	<1
Lead, Total	ug/L	<10	<10	<10	<10
Lithium, Total	ug/L	<20	24.5	<20	<20
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	<10	333	1390	<10
Molybdenum, Dissolved	ug/L	<10	321	1380	<10
Radium-226	pCi/L	0.535	<0.219	<0	1.86
Radium-228	pCi/L	<0.376	1.37	0.811	1.05
Selenium, Total	ug/L	4.9	<1	<1	<1
Thallium, Total	ug/L	<1	<1	<1	<1
Total Radium	pCi/L	0.911	1.59	<0.811	2.91
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	485	292	122	792
Alkalinity,Bicarbonate (CaCO3)	mg/L	485	292	122	792
Alkalinity,Carbonate (CaCO3)	mg/L	<10	<10	<10	<10
Aluminum, Dissolved	ug/L	<10	<10	<10	17.7
Boron, Dissolved	ug/L	1810	8090	21300	7700
Dissolved Organic Carbon	mg/L	3.6	1.8	2.2	15.2
Iron, Total	ug/L	<100	4970	9080	27800
Magnesium, Total	ug/L	44500	37400	26200	77300
Magnesium, Dissolved	ug/L	45400	36300	23900	80700
Manganese, Total	ug/L	1390	1820	2080	1160
Nitrogen, Nitrate	mg/L	1	0.1	<0.1	<0.1
Phosphate as P04	mg/L	<0.15	0.35	0.37	6.5
Potassium, Total	ug/L	2920	9380	10800	4420
Potassium, Dissolved	ug/L	3110	9290	10800	4620
Sodium, Total	ug/L	25300	29900	30800	68300
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 6
Summary of Monitoring Results - May-June 2024
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-28B	MW-28I	MW-28A	MW-29B
Sample Date		6/11/2024	6/12/2024	6/11/2024	5/10/2024
Pace Lab ID		50375622004	50375751001	50375622003	50372872002
Static Water Elevation		410.43	410.24	410.41	411.47
Field Parameters					
Temperature, Field	°C	16.29	16.64	20.05	14.08
Dissolved Oxygen, Field	mg/L	0.44	0.00	0.05	3.61
Conductivity, Field	uS/cm	2097.69	2696.11	2818.69	761.05
ORP, Field	mV	-52.06	-169.67	-182.51	26.41
pH, Field	S.U.	7.07	6.09	6.23	5.97
Turbidity, Field	NTU	28.92	16.40	27.45	0.00
Appendix III Constituents					
Boron, Total	ug/L	9350	25300	27100	179
Calcium, Total	ug/L	300000	563000	669000	121000
Chloride	mg/L	127	211	153	9
Fluoride	mg/L	0.31	<0.1	<0.1	<0.1
Sulfate	mg/L	767	1120	1590	28.6
Total Dissolved Solids	mg/L	1480	2270	2540	397
pH at 25 Degrees C	Std. Units	7.2	7.3	7.2	7
Appendix IV Constituents					
Antimony, Total	ug/L	<1	<1	<1	<1
Arsenic, Total	ug/L	3.9	1.4	1.4	<1
Barium, Total	ug/L	47	31.3	30.9	68.9
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10
Cobalt, Total	ug/L	4.9	<1	<1	1.4
Lead, Total	ug/L	<10	<10	<10	<10
Lithium, Total	ug/L	163	<20	<20	<20
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	386	600	1480	<10
Molybdenum, Dissolved	ug/L	388	602	1440	<10
Radium-226	pCi/L	0.422	0.784	0.756	0.553
Radium-228	pCi/L	1.09	1.07	1.25	0.478
Selenium, Total	ug/L	<1	<1	<1	<1
Thallium, Total	ug/L	<1	<1	<1	<1
Total Radium	pCi/L	1.51	1.85	2.01	1.03
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	294	150	56	391
Alkalinity,Bicarbonate (CaCO3)	mg/L	294	150	56	391
Alkalinity,Carbonate (CaCO3)	mg/L	<10	<10	<10	<10
Aluminum, Dissolved	ug/L	10.1	<10	<10	<10
Boron, Dissolved	ug/L	9800	25200	27300	186
Dissolved Organic Carbon	mg/L	2.2	2.6	2.3	1.3
Iron, Total	ug/L	4630	9600	8590	<100
Magnesium, Total	ug/L	70500	17200	12500	22600
Magnesium, Dissolved	ug/L	73100	17900	12000	24400
Manganese, Total	ug/L	3250	1930	2170	1780
Nitrogen, Nitrate	mg/L	<0.1	<0.1	<0.1	0.36
Phosphate as P04	mg/L	0.22	0.41	0.21	<0.15
Potassium, Total	ug/L	18800	37300	36200	<1000
Potassium, Dissolved	ug/L	19700	38000	35900	<1000
Sodium, Total	ug/L	60800	55400	34700	5320
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 6
Summary of Monitoring Results - May-June 2024
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-29I	MW-29A	MW-36B	MW-36I
Sample Date		5/10/2024	5/10/2024	5/23/2024	5/23/2024
Pace Lab ID		50372872003	50372872004	50374129003	50374129002
Static Water Elevation		411.45	411.46	411.07	411.12
Field Parameters					
Temperature, Field	°C	16.52	13.97	18.75	18.12
Dissolved Oxygen, Field	mg/L	6.63	6.07	1.49	6.12
Conductivity, Field	uS/cm	931.45	2145.81	791.80	863.10
ORP, Field	mV	-82.42	-78.60	115.38	-72.98
pH, Field	S.U.	7.23	7.17	7.09	7.13
Turbidity, Field	NTU	21.28	77.97	12.83	33.06
Appendix III Constituents					
Boron, Total	ug/L	1640	12900	<100	896
Calcium, Total	ug/L	137000	428000	105000	143000
Chloride	mg/L	18.8	72.5	5.8	7.6
Fluoride	mg/L	<0.1	<0.1	0.11	<0.1
Sulfate	mg/L	185	1030	32.6	296
Total Dissolved Solids	mg/L	570	1760	392	644
pH at 25 Degrees C	Std. Units	6.9	6.7	7.4	7.4
Appendix IV Constituents					
Antimony, Total	ug/L	<1	<1	<1	<1
Arsenic, Total	ug/L	<1	1.2	<1	<1
Barium, Total	ug/L	69.3	35.4	90.3	63.6
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10
Cobalt, Total	ug/L	<1	2	<1	<1
Lead, Total	ug/L	<10	<10	<10	<10
Lithium, Total	ug/L	<20	<20	<20	<20
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	<10	235	<10	<10
Molybdenum, Dissolved	ug/L	<10	242	<10	<10
Radium-226	pCi/L	0.473	<-0.0586	<0.138	<0.215
Radium-228	pCi/L	<0.299	<0.226	0.571	0.433
Selenium, Total	ug/L	<1	<1	1.3	<1
Thallium, Total	ug/L	<1	<1	<1	<1
Total Radium	pCi/L	<0.772	<0.226	0.709	0.648
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	316	205	373	263
Alkalinity,Bicarbonate (CaCO3)	mg/L	316	205	373	263
Alkalinity,Carbonate (CaCO3)	mg/L	<10	<10	<10	<10
Aluminum, Dissolved	ug/L	<10	<10	<10	<10
Boron, Dissolved	ug/L	1760	13200	<100	965
Dissolved Organic Carbon	mg/L	<1	1.5	<1	<1
Iron, Total	ug/L	3830	8560	133	4460
Magnesium, Total	ug/L	30800	47500	33400	39600
Magnesium, Dissolved	ug/L	33500	48300	34600	41200
Manganese, Total	ug/L	1760	1710	10.2	748
Nitrogen, Nitrate	mg/L	<0.1	<0.1	4.2	<0.1
Phosphate as P04	mg/L	0.4	0.41	<0.15	0.35
Potassium, Total	ug/L	<1000	4370	<1000	1530
Potassium, Dissolved	ug/L	<1000	4440	<1000	1580
Sodium, Total	ug/L	7490	29000	3390	7550
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 6
Summary of Monitoring Results - May-June 2024
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-36A	MW-37B	MW-37I	MW-37A
Sample Date		5/23/2024	5/13/2024	5/13/2024	5/13/2024
Pace Lab ID		50374129001	50373016001	50373016002	50373016003
Static Water Elevation		411.13	410.59	410.64	410.61
Field Parameters					
Temperature, Field	°C	21.06	15.63	16.54	16.92
Dissolved Oxygen, Field	mg/L	1.50	0.18	0.28	0.26
Conductivity, Field	uS/cm	1061.55	1494.28	2558.42	2553.47
ORP, Field	mV	-98.31	151.51	-75.04	-113.44
pH, Field	S.U.	7.22	6.70	6.78	7.04
Turbidity, Field	NTU	34.34	0.00	73.90	484.86
Appendix III Constituents					
Boron, Total	ug/L	1030	3810	11000	12100
Calcium, Total	ug/L	147000	261000	576000	603000
Chloride	mg/L	8.9	18.5	43.7	49.4
Fluoride	mg/L	<0.1	<0.1	<0.1	<0.1
Sulfate	mg/L	333	514	1350	1730
Total Dissolved Solids	mg/L	665	990	2330	2550
pH at 25 Degrees C	Std. Units	7.4	7	6.7	6.7
Appendix IV Constituents					
Antimony, Total	ug/L	<1	<1	<1	<1
Arsenic, Total	ug/L	1.2	<1	<1	<1
Barium, Total	ug/L	44.6	47.4	30.8	24.8
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10
Cobalt, Total	ug/L	<1	<1	<1	<1
Lead, Total	ug/L	<10	<10	<10	<10
Lithium, Total	ug/L	<20	<20	<20	<20
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	<10	<10	221	418
Molybdenum, Dissolved	ug/L	<10	<10	213	416
Radium-226	pCi/L	0.354	<0.072	<0.118	<0.186
Radium-228	pCi/L	1.16	0.45	<0.379	<0.00108
Selenium, Total	ug/L	<1	1.3	<1	<1
Thallium, Total	ug/L	<1	<1	<1	<1
Total Radium	pCi/L	1.51	<0.522	<0.497	<0.187
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	236	316	183	105
Alkalinity,Bicarbonate (CaCO3)	mg/L	236	316	183	105
Alkalinity,Carbonate (CaCO3)	mg/L	<10	<10	<10	<10
Aluminum, Dissolved	ug/L	<10	<10	<10	<10
Boron, Dissolved	ug/L	1090	3490	10800	12200
Dissolved Organic Carbon	mg/L	<1	2.3	2.2	1.5
Iron, Total	ug/L	5190	<100	7790	11900
Magnesium, Total	ug/L	42200	36800	27600	39200
Magnesium, Dissolved	ug/L	42900	37000	27100	39400
Manganese, Total	ug/L	367	404	2700	1860
Nitrogen, Nitrate	mg/L	<0.1	3.1	<0.1	<0.1
Phosphate as P04	mg/L	0.47	<0.15	0.26	0.34
Potassium, Total	ug/L	1370	1320	6610	2200
Potassium, Dissolved	ug/L	1540	1180	6620	2070
Sodium, Total	ug/L	7770	19900	56900	74000
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 6
Summary of Monitoring Results - May-June 2024
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-38B	MW-38I	MW-38A	MW-39B
Sample Date		5/15/2024	5/15/2024	5/15/2024	5/15/2024
Pace Lab ID		50373325005	50373325004	50373325006	50373325003
Static Water Elevation		411.03	411.02	411.04	410.86
Field Parameters					
Temperature, Field	°C	15.25	15.33	15.55	14.43
Dissolved Oxygen, Field	mg/L	0.17	0.28	0.20	0.15
Conductivity, Field	uS/cm	1663.34	2115.85	1986.60	1302.32
ORP, Field	mV	-9.72	-95.10	-88.75	-5.46
pH, Field	S.U.	6.72	7.04	6.92	6.71
Turbidity, Field	NTU	0.00	2.48	0.00	9.31
Appendix III Constituents					
Boron, Total	ug/L	7290	15500	17200	4560
Calcium, Total	ug/L	413000	673000	645000	254000
Chloride	mg/L	57.4	115	115	35.7
Fluoride	mg/L	<0.1	<0.1	<0.1	0.12
Sulfate	mg/L	890	1680	1710	490
Total Dissolved Solids	mg/L	1640	2500	2720	1110
pH at 25 Degrees C	Std. Units	6.9	6.7	6.8	6.9
Appendix IV Constituents					
Antimony, Total	ug/L	<1	<1	<1	<1
Arsenic, Total	ug/L	<1	<1	<1	<1
Barium, Total	ug/L	45.8	26.2	26.9	78.3
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10
Cobalt, Total	ug/L	<1	<1	<1	<1
Lead, Total	ug/L	<10	<10	<10	<10
Lithium, Total	ug/L	<20	<20	<20	<20
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	<10	255	354	<10
Molybdenum, Dissolved	ug/L	<10	240	341	<10
Radium-226	pCi/L	<0.0648	<0.0567	<0.341	<0.432
Radium-228	pCi/L	<-0.0126	0.78	0.961	0.444
Selenium, Total	ug/L	<1	<1	<1	<1
Thallium, Total	ug/L	<1	<1	<1	<1
Total Radium	pCi/L	<0.0648	0.837	1.3	<0.876
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	229	98.6	108	335
Alkalinity,Bicarbonate (CaCO3)	mg/L	229	98.6	108	335
Alkalinity,Carbonate (CaCO3)	mg/L	<10	<10	<10	<10
Aluminum, Dissolved	ug/L	<10	<10	<10	<10
Boron, Dissolved	ug/L	7960	14900	16700	4500
Dissolved Organic Carbon	mg/L	1.7	2	1.9	1.8
Iron, Total	ug/L	135	7130	7670	111
Magnesium, Total	ug/L	43000	28100	40800	46800
Magnesium, Dissolved	ug/L	41800	26600	39500	45500
Manganese, Total	ug/L	1060	2710	2490	1010
Nitrogen, Nitrate	mg/L	0.23	<0.1	<0.1	0.21
Phosphate as P04	mg/L	<0.15	0.26	0.29	<0.15
Potassium, Total	ug/L	2370	8670	8530	1420
Potassium, Dissolved	ug/L	2770	8450	8470	1480
Sodium, Total	ug/L	20100	34900	37600	15200
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 6
Summary of Monitoring Results - May-June 2024
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-39I	MW-39A	MW-40B	MW-40I
Sample Date		5/15/2024	5/15/2024	5/14/2024	5/13/2024
Pace Lab ID		50373325001	50373325002	50373152001	50373016005
Static Water Elevation		411.28	411.63	411.99	411.98
Field Parameters					
Temperature, Field	°C	14.67	14.70	15.32	16.93
Dissolved Oxygen, Field	mg/L	0.20	0.31	0.15	0.34
Conductivity, Field	uS/cm	2464.97	2306.69	896.82	2276.74
ORP, Field	mV	-81.97	-90.52	157.69	-93.09
pH, Field	S.U.	6.79	6.89	6.68	6.82
Turbidity, Field	NTU	0.00	4.70	337.41	2.65
Appendix III Constituents					
Boron, Total	ug/L	20900	23100	1610	20200
Calcium, Total	ug/L	639000	633000	154000	526000
Chloride	mg/L	111	137	18	121
Fluoride	mg/L	<0.1	<0.1	0.11	<0.1
Sulfate	mg/L	1630	1700	152	1530
Total Dissolved Solids	mg/L	2700	2670	593	2380
pH at 25 Degrees C	Std. Units	6.7	6.5	7.2	6.8
Appendix IV Constituents					
Antimony, Total	ug/L	<1	<1	<1	<1
Arsenic, Total	ug/L	<1	<1	<1	1
Barium, Total	ug/L	30	25.2	41.6	22.6
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10
Cobalt, Total	ug/L	<1	<1	<1	<1
Lead, Total	ug/L	<10	<10	<10	<10
Lithium, Total	ug/L	<20	<20	<20	<20
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	190	343	<10	150
Molybdenum, Dissolved	ug/L	178	333	<10	156
Radium-226	pCi/L	0.626	<-0.181	<-0.119	0.66
Radium-228	pCi/L	0.754	1.46	<0.281	1.22
Selenium, Total	ug/L	<1	<1	<1	<1
Thallium, Total	ug/L	<1	<1	<1	<1
Total Radium	pCi/L	1.38	1.46	<0.281	1.88
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	133	146	375	138
Alkalinity,Bicarbonate (CaCO3)	mg/L	133	146	375	138
Alkalinity,Carbonate (CaCO3)	mg/L	<10	<10	<10	<10
Aluminum, Dissolved	ug/L	<10	<10	<10	<10
Boron, Dissolved	ug/L	20300	22500	1500	20900
Dissolved Organic Carbon	mg/L	2.3	2.1	2	1.6
Iron, Total	ug/L	9700	10200	<100	10100
Magnesium, Total	ug/L	49800	55700	39100	66900
Magnesium, Dissolved	ug/L	48600	53800	36700	68900
Manganese, Total	ug/L	2500	2140	22.2	2020
Nitrogen, Nitrate	mg/L	<0.1	0.15	0.3	<0.1
Phosphate as P04	mg/L	0.34	0.22	<0.15	0.31
Potassium, Total	ug/L	11300	9070	<1000	12100
Potassium, Dissolved	ug/L	10900	9590	<1000	12300
Sodium, Total	ug/L	45100	52600	9710	50500
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 6
Summary of Monitoring Results - May-June 2024
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-40A	MW-41B	MW-41I	MW-41A
Sample Date		5/14/2024	5/2/2024	5/2/2024	5/2/2024
Pace Lab ID		50373152002	50372108003	50372108002	50372108001
Static Water Elevation		411.95	411.09	410.97	410.92
Field Parameters					
Temperature, Field	°C	15.72	14.02	14.33	14.98
Dissolved Oxygen, Field	mg/L	0.43	0.03	0.02	0.06
Conductivity, Field	uS/cm	2380.81	704.25	631.66	1694.25
ORP, Field	mV	-123.93	96.63	-196.67	-189.07
pH, Field	S.U.	7.15	6.94	7.24	7.15
Turbidity, Field	NTU	11.27	0.08	17.85	1.47
Appendix III Constituents					
Boron, Total	ug/L	24400	517	904	12400
Calcium, Total	ug/L	674000	106000	103000	329000
Chloride	mg/L	145	9.9	13.6	61.4
Fluoride	mg/L	<0.1	<0.1	<0.1	0.11
Sulfate	mg/L	1630	52.5	74.8	749
Total Dissolved Solids	mg/L	2820	373	374	1290
pH at 25 Degrees C	Std. Units	6.8	7.3	7.3	7.2
Appendix IV Constituents					
Antimony, Total	ug/L	<1	<1	<1	<1
Arsenic, Total	ug/L	<1	<1	<1	<1
Barium, Total	ug/L	28.1	38.8	71.3	32.9
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10
Cobalt, Total	ug/L	<1	<1	<1	<1
Lead, Total	ug/L	<10	<10	<10	<10
Lithium, Total	ug/L	<20	<20	<20	<20
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	762	<10	<10	458
Molybdenum, Dissolved	ug/L	733	<10	<10	466
Radium-226	pCi/L	<-0.539	<0	<0.0475	0.323
Radium-228	pCi/L	0.692	0.426	0.618	0.751
Selenium, Total	ug/L	<1	<1	<1	<1
Thallium, Total	ug/L	<1	<1	<1	<1
Total Radium	pCi/L	<0.692	<0.426	0.666	1.07
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	98.2	331	298	207
Alkalinity,Bicarbonate (CaCO3)	mg/L	98.2	331	298	207
Alkalinity,Carbonate (CaCO3)	mg/L	<10	<10	<10	<10
Aluminum, Dissolved	ug/L	<10	<10	<10	<10
Boron, Dissolved	ug/L	23800	520	886	12500
Dissolved Organic Carbon	mg/L	2.5	<1	1.1	1
Iron, Total	ug/L	11600	<100	4040	7270
Magnesium, Total	ug/L	37300	25500	24800	30600
Magnesium, Dissolved	ug/L	35900	25800	24800	30900
Manganese, Total	ug/L	2210	798	1570	1150
Nitrogen, Nitrate	mg/L	<0.1	0.75	<0.1	<0.1
Phosphate as P04	mg/L	0.21	<0.15	0.61	0.42
Potassium, Total	ug/L	13400	<1000	<1000	5460
Potassium, Dissolved	ug/L	12600	<1000	<1000	5410
Sodium, Total	ug/L	50100	6680	8520	26500
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 6
Summary of Monitoring Results - May-June 2024
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-42B	MW-42I	MW-42A	MW-43B
Sample Date		6/7/2024	6/7/2024	6/7/2024	6/6/2024
Pace Lab ID		50375284003	50375284002	50375284001	50375256003
Static Water Elevation		410.03	410.12	410.06	409.96
Field Parameters					
Temperature, Field	°C	14.81	15.08	15.18	13.94
Dissolved Oxygen, Field	mg/L	0.03	0.00	0.02	0.48
Conductivity, Field	uS/cm	1336.91	2262.55	2776.72	1004.22
ORP, Field	mV	10.79	-119.17	-180.60	52.08
pH, Field	S.U.	6.89	7.07	6.24	6.05
Turbidity, Field	NTU	9.89	7.79	16.71	1.26
Appendix III Constituents					
Boron, Total	ug/L	2520	14800	22000	931
Calcium, Total	ug/L	223000	450000	644000	161000
Chloride	mg/L	25	82.4	115	23.2
Fluoride	mg/L	<0.1	0.17	<0.1	<0.1
Sulfate	mg/L	200	987	1570	113
Total Dissolved Solids	mg/L	810	1710	2480	594
pH at 25 Degrees C	Std. Units	7.2	6.9	6.9	7.5
Appendix IV Constituents					
Antimony, Total	ug/L	<1	<1	<1	<1
Arsenic, Total	ug/L	<1	<1	<1	<1
Barium, Total	ug/L	64.4	32.7	33.3	51.9
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10
Cobalt, Total	ug/L	2.2	<1	<1	1.6
Lead, Total	ug/L	<10	<10	<10	<10
Lithium, Total	ug/L	<20	57.9	<20	<20
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	<10	347	2020	<10
Molybdenum, Dissolved	ug/L	<10	353	2020	<10
Radium-226	pCi/L	<-0.225	0.78	<0.516	<-0.604
Radium-228	pCi/L	0.684	0.983	1.31	0.749
Selenium, Total	ug/L	4.8	<1	<1	22
Thallium, Total	ug/L	<1	<1	<1	<1
Total Radium	pCi/L	<0.684	1.76	1.83	<0.749
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	526	240	78.4	416
Alkalinity,Bicarbonate (CaCO3)	mg/L	526	240	78.4	416
Alkalinity,Carbonate (CaCO3)	mg/L	<10	<10	<10	<10
Aluminum, Dissolved	ug/L	<10	<10	<10	<10
Boron, Dissolved	ug/L	2540	15000	22300	917
Dissolved Organic Carbon	mg/L	3.2	1.6	1.3	<1
Iron, Total	ug/L	578	11600	9110	120
Magnesium, Total	ug/L	41700	31200	16800	33700
Magnesium, Dissolved	ug/L	43500	31800	17200	33000
Manganese, Total	ug/L	1400	3720	2350	996
Nitrogen, Nitrate	mg/L	1.4	<0.1	<0.1	3.1
Phosphate as P04	mg/L	1	0.6	0.27	<0.15
Potassium, Total	ug/L	2360	23200	32900	1320
Potassium, Dissolved	ug/L	2270	22900	33300	1310
Sodium, Total	ug/L	15500	35900	38400	12100
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 6
Summary of Monitoring Results - May-June 2024
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-43I	MW-43A	MW-44B	MW-44I
Sample Date		6/6/2024	6/6/2024	6/5/2024	6/5/2024
Pace Lab ID		50375256002	50375256001	50375179001	50375179002
Static Water Elevation		410.02	409.98	409.91	409.91
Field Parameters					
Temperature, Field	°C	15.77	15.77	15.19	17.19
Dissolved Oxygen, Field	mg/L	0.04	0.04	0.01	0.03
Conductivity, Field	uS/cm	2138.76	2138.76	1385.19	1660.26
ORP, Field	mV	-146.85	-146.85	-112.96	-111.12
pH, Field	S.U.	5.99	5.99	7.05	6.93
Turbidity, Field	NTU	9.45	9.45	8.63	14.87
Appendix III Constituents					
Boron, Total	ug/L	1710	9050	4430	3060
Calcium, Total	ug/L	237000	425000	189000	243000
Chloride	mg/L	61.4	93.2	101	126
Fluoride	mg/L	<0.1	0.11	0.21	<0.1
Sulfate	mg/L	409	983	204	264
Total Dissolved Solids	mg/L	978	1730	758	918
pH at 25 Degrees C	Std. Units	7.5	7.6	8.0	7.4
Appendix IV Constituents					
Antimony, Total	ug/L	<1	<1	<1	<1
Arsenic, Total	ug/L	4.3	1.9	4.2	2.4
Barium, Total	ug/L	58.3	28.4	149	74
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10
Cobalt, Total	ug/L	<1	<1	<1	<1
Lead, Total	ug/L	<10	<10	<10	<10
Lithium, Total	ug/L	<20	<20	<20	<20
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	109	289	<10	28
Molybdenum, Dissolved	ug/L	107	288	<10	28.1
Radium-226	pCi/L	<0.428	0.639	1.11	<0
Radium-228	pCi/L	1.55	0.803	0.839	0.459
Selenium, Total	ug/L	<1	<1	<1	<1
Thallium, Total	ug/L	<1	<1	<1	<1
Total Radium	pCi/L	1.98	1.44	1.95	<0.459
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	422	209	396	273
Alkalinity,Bicarbonate (CaCO3)	mg/L	422	209	396	273
Alkalinity,Carbonate (CaCO3)	mg/L	<10	<10	<10	<10
Aluminum, Dissolved	ug/L	<10	<10	<10	<10
Boron, Dissolved	ug/L	1700	9020	4300	2940
Dissolved Organic Carbon	mg/L	1.7	1.7	1.7	2
Iron, Total	ug/L	7200	6750	6200	9250
Magnesium, Total	ug/L	49200	31400	48500	58600
Magnesium, Dissolved	ug/L	48600	31200	46900	55600
Manganese, Total	ug/L	1640	1200	1400	1040
Nitrogen, Nitrate	mg/L	<0.1	<0.1	<0.1	0.63
Phosphate as P04	mg/L	0.55	0.62	0.98	1.3
Potassium, Total	ug/L	4470	17100	3080	1990
Potassium, Dissolved	ug/L	4470	17100	2860	1860
Sodium, Total	ug/L	37600	55300	34100	41100
Sulfide	mg/L	<0.1	<0.1	<0.1	<0.1

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 6
Summary of Monitoring Results - May-June 2024
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-44A	MW-45B	MW-45I	MW-45A
Sample Date		6/5/2024	5/21/2024	5/21/2024	5/20/2024
Pace Lab ID		50375179003	50373785002	50373785001	50373683001
Static Water Elevation		409.95	#N/A	411.46	411.67
Field Parameters					
Temperature, Field	°C	17.82	16.78	15.12	16.17
Dissolved Oxygen, Field	mg/L	0.09	0.08	0.00	0.00
Conductivity, Field	uS/cm	1572.89	968.65	1315.40	1369.53
ORP, Field	mV	-157.70	15.57	-128.40	-108.72
pH, Field	S.U.	5.87	7.07	7.06	7.03
Turbidity, Field	NTU	19.81	10.85	33.05	38.69
Appendix III Constituents					
Boron, Total	ug/L	1650	<100	435	714
Calcium, Total	ug/L	254000	133000	185000	195000
Chloride	mg/L	70.5	5.7	9.5	7.7
Fluoride	mg/L	<0.1	0.13	0.19	0.69
Sulfate	mg/L	435	196	422	486
Total Dissolved Solids	mg/L	1030	589	906	949
pH at 25 Degrees C	Std. Units	7.4	7.4	7.3	7.2
Appendix IV Constituents					
Antimony, Total	ug/L	<1	<1	<1	<1
Arsenic, Total	ug/L	3.6	<1	2.7	<1
Barium, Total	ug/L	37.1	69.9	77.2	36.6
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10
Cobalt, Total	ug/L	<1	<1	1.4	<1
Lead, Total	ug/L	<10	<10	<10	<10
Lithium, Total	ug/L	<20	<20	<20	<20
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	64.4	<10	<10	<10
Molybdenum, Dissolved	ug/L	62.6	<10	<10	<10
Radium-226	pCi/L	<0.356	<0	<0.198	0.837
Radium-228	pCi/L	0.401	0.419	0.467	<0.219
Selenium, Total	ug/L	<1	<1	<1	<1
Thallium, Total	ug/L	<1	<1	<1	<1
Total Radium	pCi/L	<0.757	<0.419	<0.665	1.06
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	411	333	337	327
Alkalinity,Bicarbonate (CaCO3)	mg/L	411	333	337	327
Alkalinity,Carbonate (CaCO3)	mg/L	<10	<10	<10	<10
Aluminum, Dissolved	ug/L	<10	<10	<10	<10
Boron, Dissolved	ug/L	1590	<100	441	691
Dissolved Organic Carbon	mg/L	1.6	1.4	2.9	1.1
Iron, Total	ug/L	8650	351	7490	8980
Magnesium, Total	ug/L	55400	44300	56300	62100
Magnesium, Dissolved	ug/L	53100	45900	58500	59600
Manganese, Total	ug/L	891	257	751	478
Nitrogen, Nitrate	mg/L	<0.1	<0.1	<0.1	<0.1
Phosphate as P04	mg/L	1.2	<0.15	0.68	0.31
Potassium, Total	ug/L	2530	<1000	<1000	1280
Potassium, Dissolved	ug/L	2340	<1000	<1000	1160
Sodium, Total	ug/L	32900	4520	7150	8810
Sulfide	mg/L	<0.1	#N/A	#N/A	<0.1

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 6
Summary of Monitoring Results - May-June 2024
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-46B	MW-46I	MW-46A	MW-47B
Sample Date		5/21/2024	5/22/2024	5/22/2024	5/22/2024
Pace Lab ID		50373785005	50373951002	50373951001	50373951007
Static Water Elevation		411.21	411.24	411.27	411.22
Field Parameters					
Temperature, Field	°C	14.89	14.71	15.80	14.55
Dissolved Oxygen, Field	mg/L	0.00	2.55	0.06	0.00
Conductivity, Field	uS/cm	998.01	1159.74	1376.49	1219.58
ORP, Field	mV	-117.69	-76.48	-96.14	-21.82
pH, Field	S.U.	7.02	7.05	6.98	6.80
Turbidity, Field	NTU	8.32	26.09	14.96	50.28
Appendix III Constituents					
Boron, Total	ug/L	<100	720	1270	<100
Calcium, Total	ug/L	134000	158000	196000	186000
Chloride	mg/L	9.4	7.6	8.5	14
Fluoride	mg/L	0.11	0.12	<0.1	<0.1
Sulfate	mg/L	78.9	333	462	50.5
Total Dissolved Solids	mg/L	561	736	912	643
pH at 25 Degrees C	Std. Units	7.3	7.5	7.7	7.2
Appendix IV Constituents					
Antimony, Total	ug/L	<1	<1	<1	<1
Arsenic, Total	ug/L	<1	<1	3.1	1.3
Barium, Total	ug/L	90.4	71.2	26.4	111
Beryllium, Total	ug/L	<0.2	<0.2	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2	<2	<2
Chromium, Total	ug/L	<10	<10	<10	<10
Cobalt, Total	ug/L	<1	<1	<1	1.6
Lead, Total	ug/L	<10	<10	<10	<10
Lithium, Total	ug/L	<20	<20	<20	<20
Mercury	ug/L	<0.2	<0.2	<0.2	<0.2
Molybdenum, Total	ug/L	<10	<10	<10	<10
Molybdenum, Dissolved	ug/L	<10	<10	<10	<10
Radium-226	pCi/L	0.612	<-0.187	<-0.348	<-0.321
Radium-228	pCi/L	0.453	0.878	<0.0749	<-0.00749
Selenium, Total	ug/L	<1	<1	<1	<1
Thallium, Total	ug/L	<1	<1	<1	<1
Total Radium	pCi/L	1.07	0.878	<0.0749	<0
Geochemical Constituents					
Alkalinity, Total as CaCO3	mg/L	459	322	349	621
Alkalinity,Bicarbonate (CaCO3)	mg/L	459	322	349	621
Alkalinity,Carbonate (CaCO3)	mg/L	<10	<10	<10	<10
Aluminum, Dissolved	ug/L	<10	<10	<10	<10
Boron, Dissolved	ug/L	<100	718	1260	<100
Dissolved Organic Carbon	mg/L	2.9	<1	3	<1
Iron, Total	ug/L	3940	4980	10200	2480
Magnesium, Total	ug/L	42100	53000	59400	45100
Magnesium, Dissolved	ug/L	43700	53500	60100	43000
Manganese, Total	ug/L	1500	1230	2380	705
Nitrogen, Nitrate	mg/L	<0.1	<0.1	<0.1	<0.1
Phosphate as P04	mg/L	0.63	0.48	0.79	0.31
Potassium, Total	ug/L	<1000	<1000	<1000	<1000
Potassium, Dissolved	ug/L	<1000	<1000	<1000	<1000
Sodium, Total	ug/L	5970	7700	9350	8510
Sulfide	mg/L	#N/A	<0.1	<0.1	<0.1

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 6
Summary of Monitoring Results - May-June 2024
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-47I	MW-47A
Sample Date		5/22/2024	5/22/2024
Pace Lab ID		50373951004	50373951003
Static Water Elevation		411.21	411.34
Field Parameters			
Temperature, Field	°C	16.05	17.71
Dissolved Oxygen, Field	mg/L	0.14	0.02
Conductivity, Field	uS/cm	911.40	965.73
ORP, Field	mV	-101.40	-126.97
pH, Field	S.U.	7.13	7.19
Turbidity, Field	NTU	4.55	50.22
Appendix III Constituents			
Boron, Total	ug/L	901	1120
Calcium, Total	ug/L	150000	162000
Chloride	mg/L	6.6	6.8
Fluoride	mg/L	0.11	<0.1
Sulfate	mg/L	338	382
Total Dissolved Solids	mg/L	663	722
pH at 25 Degrees C	Std. Units	7.3	7.3
Appendix IV Constituents			
Antimony, Total	ug/L	<1	<1
Arsenic, Total	ug/L	<1	1.3
Barium, Total	ug/L	60.8	47.1
Beryllium, Total	ug/L	<0.2	<0.2
Cadmium, Total	ug/L	<2	<2
Chromium, Total	ug/L	<10	<10
Cobalt, Total	ug/L	<1	<1
Lead, Total	ug/L	<10	<10
Lithium, Total	ug/L	<20	<20
Mercury	ug/L	<0.2	<0.2
Molybdenum, Total	ug/L	<10	<10
Molybdenum, Dissolved	ug/L	<10	<10
Radium-226	pCi/L	<-0.223	<0.057
Radium-228	pCi/L	<0.194	<0.109
Selenium, Total	ug/L	<1	<1
Thallium, Total	ug/L	<1	<1
Total Radium	pCi/L	<0.194	<0.166
Geochemical Constituents			
Alkalinity, Total as CaCO3	mg/L	258	249
Alkalinity,Bicarbonate (CaCO3)	mg/L	258	249
Alkalinity,Carbonate (CaCO3)	mg/L	<10	<10
Aluminum, Dissolved	ug/L	<10	<10
Boron, Dissolved	ug/L	934	1100
Dissolved Organic Carbon	mg/L	<1	<1
Iron, Total	ug/L	2530	7220
Magnesium, Total	ug/L	42900	46600
Magnesium, Dissolved	ug/L	44400	45800
Manganese, Total	ug/L	1490	388
Nitrogen, Nitrate	mg/L	<0.1	<0.1
Phosphate as P04	mg/L	0.32	0.69
Potassium, Total	ug/L	<1000	1940
Potassium, Dissolved	ug/L	<1000	1910
Sodium, Total	ug/L	7820	8360
Sulfide	mg/L	<0.5	<0.5

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 7
Summary of Monitoring Results - August 2024
Multi-Unit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	MW-2R	MW-3
Sample Date		8/13/2024	8/13/2024
Pace Lab ID		50380227001	50380227002
Static Water Elevation		436.45	439.56
Field Parameters			
Temperature, Field	°C	16.14	18.14
Dissolved Oxygen, Field	mg/L	0	0
Conductivity, Field	uS/cm	2890	2050
ORP, Field	mV	-54	28
pH, Field	S.U.	6.85	7.32
Turbidity, Field	NTU	585	0
Appendix III Constituents			
Boron, Total	ug/L	#N/A	#N/A
Calcium, Total	ug/L	#N/A	#N/A
Chloride	mg/L	#N/A	#N/A
Fluoride	mg/L	#N/A	#N/A
Sulfate	mg/L	#N/A	#N/A
Total Dissolved Solids	mg/L	#N/A	#N/A
pH at 25 Degrees C	Std. Units	#N/A	#N/A
Appendix IV Constituents			
Antimony, Total	ug/L	#N/A	#N/A
Arsenic, Total	ug/L	#N/A	#N/A
Barium, Total	ug/L	84.9	35.8
Beryllium, Total	ug/L	#N/A	#N/A
Cadmium, Total	ug/L	#N/A	#N/A
Chromium, Total	ug/L	#N/A	#N/A
Cobalt, Total	ug/L	#N/A	#N/A
Lead, Total	ug/L	#N/A	#N/A
Lithium, Total	ug/L	#N/A	#N/A
Mercury	ug/L	#N/A	#N/A
Molybdenum, Total	ug/L	#N/A	#N/A
Molybdenum, Dissolved	ug/L	#N/A	#N/A
Radium-226	pCi/L	#N/A	#N/A
Radium-228	pCi/L	#N/A	#N/A
Selenium, Total	ug/L	#N/A	#N/A
Thallium, Total	ug/L	#N/A	#N/A
Total Radium	pCi/L	#N/A	#N/A
Geochemical Constituents			
Alkalinity, Total as CaCO3	mg/L	#N/A	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	#N/A	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	#N/A	#N/A
Aluminum, Dissolved	ug/L	#N/A	#N/A
Boron, Dissolved	ug/L	#N/A	#N/A
Dissolved Organic Carbon	mg/L	#N/A	#N/A
Iron, Total	ug/L	#N/A	#N/A
Magnesium, Total	ug/L	#N/A	#N/A
Magnesium, Dissolved	ug/L	#N/A	#N/A
Manganese, Total	ug/L	#N/A	#N/A
Nitrogen, Nitrate	mg/L	#N/A	#N/A
Phosphate as P04	mg/L	#N/A	#N/A
Potassium, Total	ug/L	#N/A	#N/A
Potassium, Dissolved	ug/L	#N/A	#N/A
Sodium, Total	ug/L	#N/A	#N/A
Sulfide	mg/L	#N/A	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 8
Surface Water Sampling Results - August 2024
Multi-Unit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Well ID	Units	SB-1	SC-1	SB-2	SC-2	SB-3	SC-3
Sample Date		8/19/2024	8/19/2024	8/19/2024	8/19/2024	8/19/2024	8/19/2024
Pace Lab ID		50380603001	50380603002	50380603003	50380603004	50380603005	50380603006
Sample Depth	ft below water surface	4.75	6.0	1.25	7.75	2.25	6.25
Field Parameters							
Temperature, Field	°C	25.90	26.96	26.50	25.90	26.93	26.90
Dissolved Oxygen, Field	mg/L	12.77	12.00	12.02	12.74	6.78	12.48
Conductivity, Field	uS/cm	492.00	373.00	554.00	300.00	803.00	427.00
ORP, Field	mV	173.00	221.00	245.00	265.00	252.00	256.00
pH, Field	S.U.	8.14	8.07	8.07	7.88	8.18	8.11
Turbidity, Field	NTU	439.00	57.80	72.70	75.90	36.50	101.00
Appendix IV Constituents							
Boron, Total	ug/L	54.9	52.2	96.6	96.3	2470	62.2
Molybdenum, Total	ug/L	<10	<10	<10	<10	<10	<10

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 9
Summary of Monitoring Results - September 2024
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0004

Well ID	Units	MW-2R
Sample Date		9/17/2024
Pace Lab ID		50382809001
Static Water Elevation		435.65
Field Parameters		
Temperature, Field	°C	16.7
Dissolved Oxygen, Field	mg/L	0.14
Conductivity, Field	uS/cm	2547.8
ORP, Field	mV	-72.4
pH, Field	S.U.	6.85
Turbidity, Field	NTU	25.92
Appendix III Constituents		
Boron, Total	ug/L	#N/A
Calcium, Total	ug/L	#N/A
Chloride	mg/L	#N/A
Fluoride	mg/L	#N/A
Sulfate	mg/L	#N/A
Total Dissolved Solids	mg/L	#N/A
pH at 25 Degrees C	Std. Units	#N/A
Appendix IV Constituents		
Antimony, Total	ug/L	#N/A
Arsenic, Total	ug/L	#N/A
Barium, Total	ug/L	45.3
Beryllium, Total	ug/L	#N/A
Cadmium, Total	ug/L	#N/A
Chromium, Total	ug/L	#N/A
Cobalt, Total	ug/L	#N/A
Lead, Total	ug/L	#N/A
Lithium, Total	ug/L	#N/A
Mercury	ug/L	#N/A
Molybdenum, Total	ug/L	#N/A
Molybdenum, Dissolved	ug/L	#N/A
Radium-226	pCi/L	#N/A
Radium-228	pCi/L	#N/A
Selenium, Total	ug/L	#N/A
Thallium, Total	ug/L	#N/A
Total Radium	pCi/L	#N/A
Geochemical Constituents		
Alkalinity, Total as CaCO3	mg/L	#N/A
Alkalinity,Bicarbonate (CaCO3)	mg/L	#N/A
Alkalinity,Carbonate (CaCO3)	mg/L	#N/A
Aluminum, Dissolved	ug/L	#N/A
Boron, Dissolved	ug/L	#N/A
Dissolved Organic Carbon	mg/L	#N/A
Iron, Total	ug/L	#N/A
Magnesium, Total	ug/L	#N/A
Magnesium, Dissolved	ug/L	#N/A
Manganese, Total	ug/L	#N/A
Nitrogen, Nitrate	mg/L	#N/A
Phosphate as P04	mg/L	#N/A
Potassium, Total	ug/L	#N/A
Potassium, Dissolved	ug/L	#N/A
Sodium, Total	ug/L	#N/A
Sulfide	mg/L	#N/A

Notes:
ft MSL: Elevation, feet mean sea level
°C: Degrees celcius
uS/cm: microsiemen per centimeter
umhos/cm: micromhos per centimeter
#NA: Not analyzed
NM: Not Measured
NS: Not Sampled
mV: millivolt
Std. Units: standard units
mg/L: milligram per liter
ug/L: microgram per liter
pCi/L: picoCurie per liter
Static water elevation listed for a well may have been collected on a date different than date of well sampling.

Table 10A
Groundwater Protection Standards - November 2023
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Parameter	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226/228 Combined
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L
GWPS	6	78	2000	4	5	100	6	4	47.8	2710	2	660	50	2.3	5

Notes:
ug/L = micrograms per liter (ppb)
mg/L = milligrams per liter (ppm)
pCi/L = picoCuries per liter
GWPS = Groundwater Protection Standard

Table 10B
Groundwater Protection Standards - May 2024
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
Atlas Project No. 170AES0003

Parameter	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226/228 Combined
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L
GWPS	6	78	2000	4	5	100	6	4	47.8	2734	2	660	50	2.3	5

Notes:
ug/L = micrograms per liter (ppb)
mg/L = milligrams per liter (ppm)
pCi/L = picoCuries per liter
GWPS = Groundwater Protection Standard

Appendix A: Gauging Data and Groundwater Flow Rate Calculations

Table A-1
Gauging Summary
November 1, 2023
Petersburg Generating Station - Multiunit Ash Pond System
Atlas Project No. 170AES0003

Well	Date	Time	DTW, from top of Reference Point	Reference Point Elevation (TOC)	SWE, ft MSL
Monitoring Wells					
MW-2R	11/1/2023	9:45	19.40	455.00	435.60
MW-3	11/1/2023	9:50	10.58	450.71	440.13
MW-4C	11/1/2023	10:07	6.38	454.44	448.06
AP-1R	11/1/2023	15:12	38.90	443.08	404.18
AP-2BO	11/1/2023	15:10	33.79	436.86	403.07
AP-2A	11/1/2023	15:05	34.95	437.87	402.92
AP-3	11/1/2023	15:02	Dry	421.59	-
AP-3A	11/1/2023	15:00	18.73	421.56	402.83
AP-4B	11/1/2023	14:12	Dry	421.72	-
AP-4I	11/1/2023	14:10	19.04	421.82	402.78
AP-4A	11/1/2023	14:08	18.96	421.69	402.73
AP-5	11/1/2023	14:02	19.23	422.01	402.78
AP-5A	11/1/2023	14:05	19.58	422.52	402.94
AP-6B	11/1/2023	12:59	Dry	424.40	-
AP-6A	11/1/2023	12:56	21.33	424.33	403.00
AP-7	11/1/2023	12:52	14.14	434.62	420.48
AP-8	11/1/2023	12:42	8.94	444.20	435.26
Nature and Extent Wells					
AP-9B	11/1/2023	15:15	34.24	437.24	403.00
AP-9I	11/1/2023	15:17	33.90	437.24	403.34
AP-9A	11/1/2023	15:18	33.88	436.83	402.95
AP-10B	11/1/2023	14:54	18.99	422.24	403.25
AP-10I	11/1/2023	14:52	19.09	422.25	403.16
AP-10A	11/1/2023	14:50	19.85	422.41	402.56
AP-11B	11/1/2023	13:06	21.74	425.35	403.61
AP-11I	11/1/2023	13:04	21.90	425.48	403.58
AP-11A	11/1/2023	13:08	21.78	424.64	402.86
MW-19B	11/1/2023	14:31	Dry	421.51	-
MW-19I	11/1/2023	14:33	18.97	421.28	402.31
MW-19A	11/1/2023	14:35	19.07	421.41	402.34
MW-20B	11/1/2023	14:42	Dry	423.97	-
MW-20I	11/1/2023	14:40	21.42	424.00	402.58
MW-20A	11/1/2023	14:44	21.64	424.23	402.59
MW-21B	11/1/2023	15:23	34.37	437.24	402.87
MW-21I	11/1/2023	15:24	34.46	437.33	402.87
MW-21A	11/1/2023	15:25	34.28	437.09	402.81
MW-25B	11/1/2023	13:36	24.41	427.43	403.02
MW-25I	11/1/2023	13:38	24.44	427.43	402.99
MW-25A	11/1/2023	13:40	24.54	427.59	403.05
MW-26B	11/1/2023	16:12	20.68	423.13	402.45
MW-26I	11/1/2023	16:14	20.82	423.25	402.43
MW-26A	11/1/2023	16:15	20.61	423.03	402.42
MW-27B	11/1/2023	15:52	18.24	420.46	402.22
MW-28B	11/1/2023	16:17	21.68	424.43	402.75
MW-28I	11/1/2023	16:18	21.69	424.26	402.57
MW-28A	11/1/2023	16:20	21.93	424.68	402.75
MW-29B	11/1/2023	15:44	24.98	428.17	403.19
MW-29I	11/1/2023	15:46	24.60	427.78	403.18
MW-29A	11/1/2023	15:48	23.92	427.13	403.21
MW-36B	11/1/2023	13:30	24.16	427.25	403.09
MW-36I	11/1/2023	13:32	24.08	427.20	403.12
MW-36A	11/1/2023	13:34	23.81	426.94	403.13
MW-37B	11/1/2023	13:40	20.67	423.49	402.82
MW-37I	11/1/2023	13:42	20.77	423.64	402.87
MW-37A	11/1/2023	13:44	20.71	423.56	402.85
MW-38B	11/1/2023	14:25	22.35	425.34	402.99
MW-38I	11/1/2023	14:27	22.13	425.13	403.00
MW-38A	11/1/2023	14:29	22.16	425.20	403.04
MW-39B	11/1/2023	14:20	24.09	426.58	402.49
MW-39I	11/1/2023	14:22	23.88	426.81	402.93
MW-39A	11/1/2023	14:24	23.81	426.94	403.13
MW-40B	11/1/2023	14:14	20.69	423.69	403.00
MW-40I	11/1/2023	14:16	20.76	423.73	402.97
MW-40A	11/1/2023	14:18	20.65	423.62	402.97
MW-41B	11/1/2023	15:36	22.70	425.31	402.61
MW-41I	11/1/2023	15:38	23.01	425.66	402.65
MW-41A	11/1/2023	15:40	23.21	425.82	402.61
MW-42B	11/1/2023	16:08	19.73	422.18	402.45

Table A-1
Gauging Summary
November 1, 2023
Petersburg Generating Station - Multiunit Ash Pond System
Atlas Project No. 170AES0003

Well	Date	Time	DTW, from top of Reference Point	Reference Point Elevation (TOC)	SWE, ft MSL
MW-42I	11/1/2023	16:10	19.35	421.88	402.53
MW-42A	11/1/2023	16:13	19.21	421.71	402.50
MW-43B	11/1/2023	16:02	17.51	419.84	402.33
MW-43I	11/1/2023	16:04	17.57	419.96	402.39
MW-43A	11/1/2023	16:05	17.51	419.88	402.37
MW-44B	11/1/2023	15:57	16.41	418.79	402.38
MW-44I	11/1/2023	15:58	15.73	418.08	402.35
MW-44A	11/1/2023	15:59	15.80	418.22	402.42
MW-45B	11/1/2023	13:10	24.85	428.34	403.49
MW-45I	11/1/2023	13:12	25.11	428.58	403.47
MW-45A	11/1/2023	13:14	24.78	428.37	403.59
MW-46B	11/1/2023	13:23	21.49	424.75	403.26
MW-46I	11/1/2023	13:21	21.42	424.71	403.29
MW-46A	11/1/2023	13:19	21.17	424.52	403.35
MW-47B	11/1/2023	13:29	24.16	427.31	403.15
MW-47I	11/1/2023	13:27	24.31	427.54	403.23
MW-47A	11/1/2023	13:25	24.13	427.50	403.37
PZ-1B	11/1/2023	14:54	19.12	422.54	403.42
PZ-1A	11/1/2023	14:56	20.23	423.63	403.40
PZ-2B	11/1/2023	14:38	20.96	423.50	402.54
PZ-2I	11/1/2023	14:37	20.49	423.02	402.53
PZ-2A	11/1/2023	14:36	20.02	422.55	402.53

TOC = Top of casing
NA = Not Available

Table A-2
Flow Rate Calculations - November 2023
AES Indiana Petersburg Generating Station - Multiunit Ash Pond System
Petersburg, Indiana
Atlas Project No. 170AES0003

PS ASH POND SYSTEM SHALLOW ZONE FIGURE 3		**ASH POND SYSTEM**	
11/1/2023	Flow Rate Line	FR1	FR2
ΔH (ft)	Potentiometric Surface Hydraulic Head Change	27	37
ΔL (ft)	Flow Line Length	1110	2550
K (hydraulic conductivity (ft/day))	N&E Well Slug Test Summary 2020-2021	48.5	48.5
I (ΔH/ΔL)		0.0243	0.0145
n_e (porosity, dimensionless)	As cited in AES Eagle Valley and Harding St 2016 C/PC Plans for sites with similar outwash deposits	0.35	0.35
v (ft/day)		3.4	2.0
DEEP ZONE FIGURE 4			
11/1/2023	Flow Rate Line	FR1	
ΔH (ft)	Potentiometric Surface Hydraulic Head Change	0.5	
ΔL (ft)	Flow Line Length	760	
K (hydraulic conductivity (ft/day))	N&E Well Slug Test Summary 2020-2021	48.5	
I (ΔH/ΔL)		0.0007	
n_e (porosity, dimensionless)	As cited in AES Eagle Valley and Harding St 2016 C/PC Plans for sites with similar outwash deposits	0.35	
v (ft/day)		0.10	

Notes
1 - Average linear velocity equation from Fetter, C.W., 1980, Applied Hydrogeology: Merrill Publishing Company,
v = Q/neA1 = KI/ne

Table A-3
Static Water Elevation Gauging Summary
April 30, 2024
Petersburg Generating Station - Multiunit Ash Pond System
Atlas Project No. 170AES0003

Well	Date	Time	DTW, from top of Reference Point	Reference Point Elevation (TOC)	SWE, ft MSL
Monitoring Wells					
MW-2R	4/30/2024	14:13	14.88	455.00	440.12
MW-3	4/30/2024	14:17	10.23	450.71	440.48
MW-4C	4/30/2024	14:33	5.98	454.44	448.46
AP-1R	4/30/2024	15:10	30.75	443.08	412.33
AP-2BO	4/30/2024	15:16	25.75	436.86	411.11
AP-2A	4/30/2024	15:36	26.97	437.87	410.90
AP-3	4/30/2024	9:59	9.39	421.59	412.20
AP-3A	4/30/2024	9:59	10.23	421.56	411.33
AP-4B	4/30/2024	10:05	10.06	421.72	411.66
AP-4I	4/30/2024	10:05	10.15	421.82	411.67
AP-4A	4/30/2024	10:05	10.07	421.69	411.62
AP-5	4/30/2024	10:10	10.65	422.01	411.36
AP-5A	4/30/2024	10:10	11.06	422.52	411.46
AP-6B	4/30/2024	10:14	12.30	424.40	412.10
AP-6A	4/30/2024	10:14	12.34	424.33	411.99
AP-7	4/30/2024	15:05	10.06	434.62	424.56
AP-8	4/30/2024	15:00	6.23	444.20	437.97
Nature and Extent Wells					
AP-9B	4/30/2024	15:20	26.26	437.24	410.98
AP-9I	4/30/2024	15:20	25.96	437.54	411.58
AP-9A	4/30/2024	15:20	25.91	436.83	410.92
AP-10B	4/30/2024	11:29	10.82	422.24	411.42
AP-10I	4/30/2024	11:29	10.94	422.25	411.31
AP-10A	4/30/2024	11:29	11.78	422.41	410.63
AP-11B	4/30/2024	8:53	12.52	425.35	412.83
AP-11I	4/30/2024	8:53	12.66	425.48	412.82
AP-11A	4/30/2024	8:53	12.58	424.64	412.06
MW-19B	4/30/2024	11:06	10.95	421.51	410.56
MW-19I	4/30/2024	11:06	10.94	421.28	410.34
MW-19A	4/30/2024	11:06	11.07	421.41	410.34
MW-20B	4/30/2024	11:20	13.47	423.97	410.50
MW-20I	4/30/2024	11:20	13.49	424.00	410.51
MW-20A	4/30/2024	11:20	13.73	424.23	410.50
MW-21B	4/30/2024	15:25	26.47	437.24	410.77
MW-21I	4/30/2024	15:25	26.58	437.33	410.75
MW-21A	4/30/2024	15:25	26.42	437.09	410.67
MW-25B	4/30/2024	10:32	16.79	427.43	410.64
MW-25I	4/30/2024	10:32	16.69	427.43	410.74
MW-25A	4/30/2024	10:32	16.84	427.59	410.75
MW-26B	4/30/2024	9:33	13.12	423.13	410.01
MW-26I	4/30/2024	9:33	13.25	423.25	410.00
MW-26A	4/30/2024	9:33	13.07	423.03	409.96
MW-27B	4/30/2024	9:10	10.78	420.46	409.68
MW-28B	4/30/2024	9:40	14.00	424.43	410.43
MW-28I	4/30/2024	9:40	14.02	424.26	410.24
MW-28A	4/30/2024	9:40	14.27	424.68	410.41
MW-29B	4/30/2024	10:55	16.70	428.17	411.47
MW-29I	4/30/2024	10:55	16.33	427.78	411.45
MW-29A	4/30/2024	10:55	15.67	427.13	411.46
MW-36B	4/30/2024	10:28	16.18	427.25	411.07
MW-36I	4/30/2024	10:28	16.08	427.20	411.12
MW-36A	4/30/2024	10:28	15.81	426.94	411.13
MW-37B	4/30/2024	10:37	12.90	423.49	410.59
MW-37I	4/30/2024	10:37	13.00	423.64	410.64
MW-37A	4/30/2024	10:37	12.95	423.56	410.61
MW-38B	4/30/2024	10:41	14.31	425.34	411.03
MW-38I	4/30/2024	10:41	14.11	425.13	411.02
MW-38A	4/30/2024	10:41	14.16	425.20	411.04
MW-39B	4/30/2024	10:45	15.72	426.58	410.86
MW-39I	4/30/2024	10:45	15.53	426.81	411.28
MW-39A	4/30/2024	10:45	15.31	426.94	411.63
MW-40B	4/30/2024	10:49	11.70	423.69	411.99
MW-40I	4/30/2024	10:49	11.75	423.73	411.98
MW-40A	4/30/2024	10:49	11.67	423.62	411.95
MW-41B	4/30/2024	11:01	14.22	425.31	411.09
MW-41I	4/30/2024	11:01	14.69	425.66	410.97
MW-41A	4/30/2024	11:01	14.90	425.82	410.92
MW-42B	4/30/2024	9:27	12.15	422.18	410.03

Table A-3
Static Water Elevation Gauging Summary
April 30, 2024
Petersburg Generating Station - Multiunit Ash Pond System
Atlas Project No. 170AES0003

Well	Date	Time	DTW, from top of Reference Point	Reference Point Elevation (TOC)	SWE, ft MSL
MW-42I	4/30/2024	9:27	11.76	421.88	410.12
MW-42A	4/30/2024	9:27	11.65	421.71	410.06
MW-43B	4/30/2024	9:22	9.88	419.84	409.96
MW-43I	4/30/2024	9:22	9.94	419.96	410.02
MW-43A	4/30/2024	9:22	9.90	419.88	409.98
MW-44B	4/30/2024	9:15	8.88	418.79	409.91
MW-44I	4/30/2024	9:15	8.17	418.08	409.91
MW-44A	4/30/2024	9:15	8.27	418.22	409.95
MW-45B	4/30/2024	8:48	16.84	428.34	411.50
MW-45I	4/30/2024	8:48	17.12	428.58	411.46
MW-45A	4/30/2024	8:48	16.70	428.37	411.67
MW-46B	4/30/2024	8:43	13.54	424.75	411.21
MW-46I	4/30/2024	8:43	13.47	424.71	411.24
MW-46A	4/30/2024	8:43	13.25	424.52	411.27
MW-47B	4/30/2024	10:22	16.09	427.31	411.22
MW-47I	4/30/2024	10:22	16.33	427.54	411.21
MW-47A	4/30/2024	10:22	16.16	427.50	411.34
PZ-1B	4/30/2024	11:34	10.93	422.54	411.61
PZ-1A	4/30/2024	11:34	11.93	423.63	411.70
PZ-2B	4/30/2024	11:16	13.21	423.50	410.29
PZ-2I	4/30/2024	11:16	12.75	423.02	410.27
PZ-2A	4/30/2024	11:16	12.29	422.55	410.26

TOC = Top of casing
NA = Not Available

Table A-4
Flow Rate Calculations - April 2024
AES Indiana Petersburg Generating Station - Multiunit Ash Pond System
Petersburg, Indiana
Atlas Project No. 170AES0003

PS ASH POND SYSTEM SHALLOW ZONE FIGURE 5		**ASH POND SYSTEM**	
4/30/2024	Flow Rate Line	FR1	FR2
ΔH (ft)	Potentiometric Surface Hydraulic Head Change	29	30
ΔL (ft)	Flow Line Length	1800	3070
K (hydraulic conductivity (ft/day))	N&E Well Slug Test Summary 2020-2021	48.5	48.5
I (ΔH/ΔL)		0.0161	0.0098
n_e (porosity, dimensionless)	As cited in AES Eagle Valley and Harding St 2016 C/PC Plans for sites with similar outwash deposits	0.35	0.35
v (ft/day)		2.2	1.4
DEEP ZONE FIGURE 6			
4/30/2024	Flow Rate Line	FR1	FR2
ΔH (ft)	Potentiometric Surface Hydraulic Head Change	1	2
ΔL (ft)	Flow Line Length	800	1850
K (hydraulic conductivity (ft/day))	N&E Well Slug Test Summary 2020-2021	48.5	48.5
I (ΔH/ΔL)		0.0013	0.0011
n_e (porosity, dimensionless)	As cited in AES Eagle Valley and Harding St 2016 C/PC Plans for sites with similar outwash deposits	0.35	0.35
v (ft/day)		0.18	0.15

Notes
1 - Average linear velocity equation from Fetter, C.W., 1980, Applied Hydrogeology: Merrill Publishing Company,
v = Q/neA1 = KI/ne

Table A-5
Static Water Elevation Gauging Summary
November 1, 2024
Petersburg Generating Station - Multiunit Ash Pond System
Atlas Project No. 170AES0003

Well	Date	Time	DTW, from top of Reference Point	Reference Point Elevation (TOC)	SWE, ft MSL
Monitoring Wells					
MW-2R	11/1/2024	11:22	19.30	455.00	435.70
MW-3	11/1/2024	11:19	10.93	450.71	439.78
MW-4C	11/1/2024	11:09	6.80	454.44	447.64
AP-1R	11/1/2024	15:30	39.05	443.08	404.03
AP-2BO	11/1/2024	15:21	33.89	436.86	402.97
AP-2A	11/1/2024	15:25	35.09	437.87	402.78
AP-3	11/1/2024	14:53	dry to pump (17.70)	421.59	<403.89
AP-3A	11/1/2024	14:55	18.80	421.56	402.76
AP-4B	11/1/2024	15:00	dry to pump (18.40)	421.72	<403.32
AP-4I	11/1/2024	15:01	19.15	421.82	402.67
AP-4A	11/1/2024	15:03	19.08	421.69	402.61
AP-5	11/1/2024	15:04	19.42	422.01	402.59
AP-5A	11/1/2024	15:05	19.77	422.52	402.75
AP-6B	11/1/2024	15:08	dry to pump (20.0)	424.40	<404.40
AP-6A	11/1/2024	15:09	21.45	424.33	402.88
AP-7	11/1/2024	12:02	13.16	434.62	421.46
AP-8	11/1/2024	12:00	8.87	444.20	435.33
Nature and Extent Wells					
AP-9B	11/1/2024	15:17	34.32	437.24	402.92
AP-9I	11/1/2024	15:18	34.00	437.54	403.54
AP-9A	11/1/2024	15:19	33.94	436.83	402.89
AP-10B	11/1/2024	14:47	19.04	422.24	403.20
AP-10I	11/1/2024	14:46	19.12	422.25	403.13
AP-10A	11/1/2024	14:49	19.89	422.41	402.52
AP-11B	11/1/2024	12:09	21.99	425.35	403.36
AP-11I	11/1/2024	12:10	22.15	425.48	403.33
AP-11A	11/1/2024	12:11	22.03	424.64	402.61
MW-19B	11/1/2024	14:18	dry to pump (18.40)	421.51	<403.11
MW-19I	11/1/2024	14:19	19.08	421.28	402.20
MW-19A	11/1/2024	14:20	19.18	421.41	402.23
MW-20B	11/1/2024	14:29	dry to pump (16.25)	423.97	<407.72
MW-20I	11/1/2024	14:28	21.57	424.00	402.43
MW-20A	11/1/2024	14:27	21.81	424.23	402.42
MW-21B	11/1/2024	15:40	34.52	437.24	402.72
MW-21I	11/1/2024	15:39	34.61	437.33	402.72
MW-21A	11/1/2024	15:38	34.46	437.09	402.63
MW-25B	11/1/2024	13:29	24.79	427.43	402.64
MW-25I	11/1/2024	13:30	24.75	427.43	402.68
MW-25A	11/1/2024	13:31	24.90	427.59	402.69
MW-26B	11/1/2024	16:02	20.89	423.13	402.24
MW-26I	11/1/2024	16:03	20.99	423.25	402.26
MW-26A	11/1/2024	16:04	20.82	423.03	402.21
MW-27B	11/1/2024	15:44	18.55	420.46	401.91
MW-28B	11/1/2024	16:09	21.80	424.43	402.63
MW-28I	11/1/2024	16:10	21.83	424.26	402.43
MW-28A	11/1/2024	16:11	22.08	424.68	402.60
MW-29B	11/1/2024	14:06	25.21	428.17	402.96
MW-29I	11/1/2024	14:07	24.81	427.78	402.97
MW-29A	11/1/2024	14:08	24.12	427.13	403.01
MW-36B	11/1/2024	13:25	24.47	427.25	402.78
MW-36I	11/1/2024	13:24	24.40	427.20	402.80
MW-36A	11/1/2024	13:23	24.14	426.94	402.80
MW-37B	11/1/2024	13:35	20.99	423.49	402.50
MW-37I	11/1/2024	13:34	21.10	423.64	402.54
MW-37A	11/1/2024	13:33	21.05	423.56	402.51
MW-38B	11/1/2024	13:37	22.65	425.34	402.69
MW-38I	11/1/2024	13:38	22.44	425.13	402.69
MW-38A	11/1/2024	13:40	22.46	425.20	402.74
MW-39B	11/1/2024	13:45	24.36	426.58	402.22
MW-39I	11/1/2024	13:46	24.15	426.81	402.66
MW-39A	11/1/2024	13:47	23.90	426.94	403.04
MW-40B	11/1/2024	13:50	20.84	423.69	402.85
MW-40I	11/1/2024	13:51	20.89	423.73	402.84
MW-40A	11/1/2024	13:52	20.81	423.62	402.81
MW-41B	11/1/2024	13:56	22.83	425.31	402.48
MW-41I	11/1/2024	13:57	23.16	425.66	402.50
MW-41A	11/1/2024	13:58	23.34	425.82	402.48

Table A-5
Static Water Elevation Gauging Summary
November 1, 2024
Petersburg Generating Station - Multiunit Ash Pond System
Atlas Project No. 170AES0003

Well	Date	Time	DTW, from top of Reference Point	Reference Point Elevation (TOC)	SWE, ft MSL
MW-42B	11/1/2024	15:58	19.45	422.18	402.73
MW-42I	11/1/2024	15:58	19.56	421.88	402.32
MW-42A	11/1/2024	15:59	19.96	421.71	401.75
MW-43B	11/1/2024	15:53	17.78	419.84	402.06
MW-43I	11/1/2024	15:54	17.84	419.96	402.12
MW-43A	11/1/2024	15:55	17.76	419.88	402.12
MW-44B	11/1/2024	15:51	16.72	418.79	402.07
MW-44I	11/1/2024	15:50	16.02	418.08	402.06
MW-44A	11/1/2024	15:49	16.10	418.22	402.12
MW-45B	11/1/2024	12:14	25.20	428.34	403.14
MW-45I	11/1/2024	12:15	25.46	428.58	403.12
MW-45A	11/1/2024	12:16	25.13	428.37	403.24
MW-46B	11/1/2024	13:00	21.81	424.75	402.94
MW-46I	11/1/2024	13:02	21.75	424.71	402.96
MW-46A	11/1/2024	13:04	21.50	424.52	403.02
MW-47B	11/1/2024	13:14	24.50	427.31	402.81
MW-47I	11/1/2024	13:17	24.64	427.54	402.90
MW-47A	11/1/2024	13:19	24.49	427.50	403.01
PZ-1B	11/1/2024	14:50	19.18	422.54	403.36
PZ-1A	11/1/2024	14:52	20.19	423.63	403.44
PZ-2B	11/1/2024	14:44	21.12	423.50	402.38
PZ-2I	Destroyed			423.02	423.02
PZ-2A	11/1/2024	14:43	20.21	422.55	402.34

TOC = Top of casing
NA = Not Available

Table A-6
Flow Rate Calculations - November 2024
AES Indiana Petersburg Generating Station - Multiunit Ash Pond System
Petersburg, Indiana
Atlas Project No. 170AES0003

PS ASH POND SYSTEM SHALLOW ZONE FIGURE 7		**ASH POND SYSTEM**	
11/1/2024	Flow Rate Line	FR1	FR2
ΔH (ft)	Potentiometric Surface Hydraulic Head Change	27.25	37.5
ΔL (ft)	Flow Line Length	1200	3410
K (hydraulic conductivity (ft/day))	N&E Well Slug Test Summary 2020-2021	48.5	48.5
I (ΔH/ΔL)		0.0227	0.011
n_e (porosity, dimensionless)	As cited in AES Eagle Valley and Harding St 2016 C/PC Plans for sites with similar outwash deposits	0.35	0.35
v (ft/day)		3.1	1.5
DEEP ZONE FIGURE 8			
11/1/2024	Flow Rate Line	FR1	FR2
ΔH (ft)	Potentiometric Surface Hydraulic Head Change	0.5	1.75
ΔL (ft)	Flow Line Length	580	2020
K (hydraulic conductivity (ft/day))	N&E Well Slug Test Summary 2020-2021	48.5	48.5
I (ΔH/ΔL)		0.0009	0.0009
n_e (porosity, dimensionless)	As cited in AES Eagle Valley and Harding St 2016 C/PC Plans for sites with similar outwash deposits	0.35	0.35
v (ft/day)		0.12	0.12

Notes
1 - Average linear velocity equation from Fetter, C.W., 1980, Applied Hydrogeology: Merrill Publishing Company,
v = Q/neA1 = KI/ne

Appendix B: Laboratory Certificates of Analyses

November 2023

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 07, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358240

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 02, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358240

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358240

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50358240001	**MW-19A**	Water	11/01/23 14:20	11/02/23 09:20

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358240

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50358240001	**MW-19A**	EPA 9056	KBB	4	PASI-I
		EPA 6010	FRW	11	PASI-I
		EPA 6010	ELK	6	PASI-I
		EPA 6020	MGM	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358240

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50358240001	**MW-19A**					
EPA 9056	Bromide	0.80	mg/L	0.050	11/10/23 10:43	
EPA 9056	Chloride	114	mg/L	2.5	11/10/23 10:58	
EPA 9056	Sulfate	1260	mg/L	25.0	11/10/23 11:14	
EPA 6010	Boron	23900	ug/L	100	11/13/23 12:43	
EPA 6010	Calcium	573000	ug/L	5000	11/13/23 14:35	
EPA 6010	Iron	9040	ug/L	100	11/13/23 12:43	
EPA 6010	Magnesium	30700	ug/L	1000	11/13/23 12:43	
EPA 6010	Molybdenum	669	ug/L	10.0	11/13/23 12:43	
EPA 6010	Potassium	13200	ug/L	1000	11/13/23 12:43	
EPA 6010	Silica	13100	ug/L	450	11/13/23 12:43	N2
EPA 6010	Sodium	44400	ug/L	1000	11/13/23 12:43	
EPA 6010	Boron, Dissolved	23900	ug/L	100	11/13/23 13:48	
EPA 6010	Iron, Dissolved	8610	ug/L	100	11/13/23 13:48	
EPA 6010	Magnesium, Dissolved	27100	ug/L	1000	11/13/23 13:48	
EPA 6010	Molybdenum, Dissolved	729	ug/L	10.0	11/13/23 13:48	
EPA 6010	Potassium, Dissolved	14000	ug/L	1000	11/13/23 13:48	
EPA 6020	Barium	32.7	ug/L	1.0	11/03/23 23:55	
EPA 6020	Manganese	1830	ug/L	20.0	11/07/23 19:13	
EPA 6020	Manganese, Dissolved	1880	ug/L	20.0	11/06/23 19:31	
EPA 903.1	Radium-226	0.365 ± 0.717 (1.29) C:NA T:89%	pCi/L		11/17/23 14:58	
EPA 904.0	Radium-228	1.27 ± 0.447 (0.630) C:88% T:83%	pCi/L		11/16/23 11:16	
Total Radium Calculation	Total Radium	1.64 ± 1.16 (1.92)	pCi/L		11/20/23 12:16	
SM 2320B	Alkalinity, Total as CaCO3	127	mg/L	10.0	11/02/23 20:28	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	127	mg/L	10.0	11/02/23 20:28	
SM 2540C	Total Dissolved Solids	2240	mg/L	20.0	11/07/23 15:20	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	11/13/23 09:35	H3
HACH 8146	Iron, Ferrous	0.51	mg/L	0.20	11/10/23 11:03	H3,N2
EPA 365.1	Phosphate as P04	0.31	mg/L	0.15	11/10/23 11:22	
SM 5310C	Total Organic Carbon	2.2	mg/L	1.0	11/11/23 04:51	
SM 5310C	Dissolved Organic Carbon	2.2	mg/L	1.0	11/07/23 06:49	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358240

Sample: MW-19A **Lab ID: 50358240001** Collected: 11/01/23 14:20 Received: 11/02/23 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.80**	mg/L	0.050	0.0090	1		11/10/23 10:43	24959-67-9	
Chloride	**114**	mg/L	2.5	0.67	10		11/10/23 10:58	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/10/23 10:43	16984-48-8	
Sulfate	**1260**	mg/L	25.0	19.0	100		11/10/23 11:14	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**23900**	ug/L	100	6.2	1	11/08/23 16:02	11/13/23 12:43	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/08/23 16:02	11/13/23 12:43	7440-43-9	
Calcium	**573000**	ug/L	5000	338	5	11/08/23 16:02	11/13/23 14:35	7440-70-2	
Iron	**9040**	ug/L	100	30.0	1	11/08/23 16:02	11/13/23 12:43	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	11/08/23 16:02	11/13/23 12:43	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/08/23 16:02	11/13/23 12:43	7439-93-2	
Magnesium	**30700**	ug/L	1000	33.6	1	11/08/23 16:02	11/13/23 12:43	7439-95-4	
Molybdenum	**669**	ug/L	10.0	0.78	1	11/08/23 16:02	11/13/23 12:43	7439-98-7	
Potassium	**13200**	ug/L	1000	97.8	1	11/08/23 16:02	11/13/23 12:43	7440-09-7	
Silica	**13100**	ug/L	450		1	11/08/23 16:02	11/13/23 12:43	7631-86-9	N2
Sodium	**44400**	ug/L	1000	54.8	1	11/08/23 16:02	11/13/23 12:43	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**23900**	ug/L	100	12.3	1	11/12/23 20:56	11/13/23 13:48	7440-42-8	
Iron, Dissolved	**8610**	ug/L	100	28.6	1	11/12/23 20:56	11/13/23 13:48	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.2	1	11/12/23 20:56	11/13/23 13:48	7439-93-2	
Magnesium, Dissolved	**27100**	ug/L	1000	45.6	1	11/12/23 20:56	11/13/23 13:48	7439-95-4	
Molybdenum, Dissolved	**729**	ug/L	10.0	1.2	1	11/12/23 20:56	11/13/23 13:48	7439-98-7	
Potassium, Dissolved	**14000**	ug/L	1000	219	1	11/12/23 20:56	11/13/23 13:48	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	2.8	1	11/03/23 09:05	11/03/23 23:55	7429-90-5	
Arsenic	ND	ug/L	1.0	0.10	1	11/03/23 09:05	11/03/23 23:55	7440-38-2	
Barium	**32.7**	ug/L	1.0	0.14	1	11/03/23 09:05	11/03/23 23:55	7440-39-3	
Cobalt	ND	ug/L	1.0	0.082	1	11/03/23 09:05	11/03/23 23:55	7440-48-4	
Manganese	**1830**	ug/L	20.0	3.6	20	11/03/23 09:05	11/07/23 19:13	7439-96-5	
Selenium	ND	ug/L	1.0	0.44	1	11/03/23 09:05	11/03/23 23:55	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	11/05/23 10:00	11/06/23 20:55	7429-90-5	
Manganese, Dissolved	**1880**	ug/L	20.0	3.4	20	11/05/23 10:00	11/06/23 19:31	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358240

Sample: MW-19A **Lab ID: 50358240001** Collected: 11/01/23 14:20 Received: 11/02/23 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**127**	mg/L	10.0	10.0	1		11/02/23 20:28		
Alkalinity,Bicarbonate (CaCO3)	**127**	mg/L	10.0	10.0	1		11/02/23 20:28		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/02/23 20:28		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2240**	mg/L	20.0	20.0	1		11/07/23 15:20		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		11/13/23 09:35		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/03/23 15:41	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**0.51**	mg/L	0.20	0.035	1		11/10/23 11:03	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/03/23 00:16	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/03/23 00:16	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.31**	mg/L	0.15	0.15	1	11/08/23 17:00	11/10/23 11:22		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**2.2**	mg/L	1.0	0.24	1		11/11/23 04:51	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.2**	mg/L	1.0	0.24	1		11/07/23 06:49		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358240

QC Batch: 761617
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358240001

METHOD BLANK: 3490813 Matrix: Water
Associated Lab Samples: 50358240001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	11/10/23 10:13	
Chloride	mg/L	ND	0.25	0.067	11/10/23 10:13	
Fluoride	mg/L	ND	0.10	0.017	11/10/23 10:13	
Sulfate	mg/L	ND	0.25	0.19	11/10/23 10:13	

LABORATORY CONTROL SAMPLE: 3490814

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.98	98	80-120	
Chloride	mg/L	2.5	2.4	95	80-120	
Fluoride	mg/L	1	0.98	98	80-120	
Sulfate	mg/L	5	4.7	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3490815 3490816

Parameter	Units	50358265003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	0.38	1	1	1.4	1.4	99	98	80-120	0	15	
Chloride	mg/L	67.5	25	25	91.1	90.5	94	92	80-120	1	15	
Fluoride	mg/L	1.1	1	1	2.2	2.2	104	103	80-120	0	15	
Sulfate	mg/L	390	50	50	425	422	70	64	80-120	1	15	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358240

QC Batch: 760584
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358240001

METHOD BLANK: 3485899 Matrix: Water
Associated Lab Samples: 50358240001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	11/13/23 12:12	
Cadmium	ug/L	ND	2.0	0.60	11/13/23 12:12	
Calcium	ug/L	ND	1000	67.7	11/13/23 12:12	
Iron	ug/L	ND	100	30.0	11/13/23 12:12	
Lead	ug/L	ND	10.0	2.5	11/13/23 12:12	
Lithium	ug/L	ND	20.0	6.8	11/13/23 12:12	
Magnesium	ug/L	ND	1000	33.6	11/13/23 12:12	
Molybdenum	ug/L	ND	10.0	0.78	11/13/23 12:12	
Potassium	ug/L	ND	1000	97.8	11/13/23 12:12	
Silica	ug/L	ND	450		11/13/23 12:12	N2
Sodium	ug/L	ND	1000	54.8	11/13/23 12:12	

LABORATORY CONTROL SAMPLE: 3485900

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	938	94	80-120	
Cadmium	ug/L	1000	990	99	80-120	
Calcium	ug/L	10000	10100	101	80-120	
Iron	ug/L	10000	10100	101	80-120	
Lead	ug/L	1000	939	94	80-120	
Lithium	ug/L	1000	980	98	80-120	
Magnesium	ug/L	10000	9640	96	80-120	
Molybdenum	ug/L	1000	1030	103	80-120	
Potassium	ug/L	10000	9620	96	80-120	
Silica	ug/L	10700	10800	101	80-120	N2
Sodium	ug/L	10000	9350	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3485901 3485902

Parameter	Units	50358215001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	<0.10 mg/L	1000	1000	990	998	99	100	75-125	1	20	
Cadmium	ug/L	<0.0020 mg/L	1000	1000	1030	1020	103	102	75-125	0	20	
Calcium	ug/L	72.8 mg/L	10000	10000	81700	82000	89	91	75-125	0	20	
Iron	ug/L	3.9 mg/L	10000	10000	14200	14300	103	104	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358240

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3485901 3485902

Parameter	Units	50358215001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	ug/L	<0.010 mg/L	1000	1000	950	955	95	95	75-125	1	20	
Lithium	ug/L	<0.020 mg/L	1000	1000	1020	1020	102	102	75-125	0	20	
Magnesium	ug/L	22.6 mg/L	10000	10000	31900	32100	93	95	75-125	1	20	
Molybdenum	ug/L	<0.010 mg/L	1000	1000	1070	1070	107	107	75-125	0	20	
Potassium	ug/L	0.89 mg/L	10000	10000	10700	10700	98	98	75-125	0	20	
Silica	ug/L	11.1 mg/L	10700	10700	22400	22400	106	106	75-125	0	20	N2
Sodium	ug/L	1.2 mg/L	10000	10000	10800	10800	96	96	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358240

QC Batch: 762141
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358240001

METHOD BLANK: 3493550 Matrix: Water
Associated Lab Samples: 50358240001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	12.3	11/13/23 13:22	
Iron, Dissolved	ug/L	ND	100	28.6	11/13/23 13:22	
Lithium, Dissolved	ug/L	ND	20.0	6.2	11/13/23 13:22	
Magnesium, Dissolved	ug/L	ND	1000	45.6	11/13/23 13:22	
Molybdenum, Dissolved	ug/L	ND	10.0	1.2	11/13/23 13:22	
Potassium, Dissolved	ug/L	ND	1000	219	11/13/23 13:22	

LABORATORY CONTROL SAMPLE: 3493551

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	960	96	80-120	
Iron, Dissolved	ug/L	10000	9650	96	80-120	
Lithium, Dissolved	ug/L	1000	956	96	80-120	F5
Magnesium, Dissolved	ug/L	10000	9360	94	80-120	
Molybdenum, Dissolved	ug/L	1000	971	97	80-120	
Potassium, Dissolved	ug/L	10000	9350	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3493552 3493553

Parameter	Units	50358203001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	626	1000	1000	1640	1590	101	96	75-125	3	20	
Iron, Dissolved	ug/L	1120	10000	10000	11000	10500	99	93	75-125	5	20	
Lithium, Dissolved	ug/L	ND	1000	1000	1060	1010	105	100	75-125	5	20	F5
Magnesium, Dissolved	ug/L	21900	10000	10000	32100	31600	103	97	75-125	2	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1010	959	100	95	75-125	5	20	
Potassium, Dissolved	ug/L	2610	10000	10000	12700	12100	100	95	75-125	4	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358240

QC Batch: 760597
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358240001

METHOD BLANK: 3485970 Matrix: Water
Associated Lab Samples: 50358240001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	2.8	11/03/23 23:19	
Arsenic	ug/L	ND	1.0	0.10	11/03/23 23:19	
Barium	ug/L	ND	1.0	0.14	11/03/23 23:19	
Cobalt	ug/L	ND	1.0	0.082	11/03/23 23:19	
Manganese	ug/L	ND	1.0	0.18	11/03/23 23:19	
Selenium	ug/L	ND	1.0	0.44	11/03/23 23:19	

LABORATORY CONTROL SAMPLE: 3485971

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	399	100	80-120	
Arsenic	ug/L	40	39.7	99	80-120	
Barium	ug/L	40	40.0	100	80-120	
Cobalt	ug/L	40	41.8	104	80-120	
Manganese	ug/L	40	41.9	105	80-120	
Selenium	ug/L	40	40.5	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3485972 3485973

Parameter	Units	50358218003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	ND	400	400	415	400	99	95	75-125	4	20	
Arsenic	ug/L	0.011 mg/L	40	40	52.2	51.7	102	101	75-125	1	20	
Barium	ug/L	0.11 mg/L	40	40	150	149	110	108	75-125	1	20	
Cobalt	ug/L	0.0016 mg/L	40	40	40.7	41.1	98	99	75-125	1	20	
Manganese	ug/L	1.8 mg/L	40	40	1890	1900	101	121	75-125	0	20	E
Selenium	ug/L	ND	40	40	38.1	39.5	95	99	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358240

QC Batch: 760848
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358240001

METHOD BLANK: 3487259 Matrix: Water
Associated Lab Samples: 50358240001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.3	11/06/23 18:36	
Manganese, Dissolved	ug/L	ND	1.0	0.17	11/06/23 18:36	

LABORATORY CONTROL SAMPLE: 3487260

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	414	104	80-120	
Manganese, Dissolved	ug/L	40	41.8	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3487261 3487262

Parameter	Units	50358239001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	416	416	104	103	75-125	0	20	
Manganese, Dissolved	ug/L	190	40	40	227	229	93	96	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358240

QC Batch: 760606
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358240001

METHOD BLANK: 3486004 Matrix: Water
Associated Lab Samples: 50358240001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/02/23 20:28	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/02/23 20:28	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/02/23 20:28	

LABORATORY CONTROL SAMPLE: 3486005

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.9	100	90-110	

SAMPLE DUPLICATE: 3486006

Parameter	Units	50358203001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	258	264	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	258	264	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3486007

Parameter	Units	50358218003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	390	395	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	390	395	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358240

QC Batch: 761272
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358240001

METHOD BLANK: 3489227 Matrix: Water
Associated Lab Samples: 50358240001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/07/23 15:19	

LABORATORY CONTROL SAMPLE: 3489228

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	280	93	80-120	

SAMPLE DUPLICATE: 3489229

Parameter	Units	50358265003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	703	722	3	10	

SAMPLE DUPLICATE: 3489230

Parameter	Units	50358390001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	567	574	1	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358240

QC Batch: 762488
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50358240001

SAMPLE DUPLICATE: 3495168

Parameter	Units	50358265003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.9	7.9	0	2	H3

SAMPLE DUPLICATE: 3495169

Parameter	Units	50358265004 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.0	8.0	0	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358240

QC Batch: 760793
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358240001

METHOD BLANK: 3486941 Matrix: Water
Associated Lab Samples: 50358240001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/03/23 15:41	

LABORATORY CONTROL SAMPLE: 3486942

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.51	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3486943 3486944

Parameter	Units	50358390001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.50	0.50	99	98	90-110	1	20	

MATRIX SPIKE SAMPLE: 3486945

Parameter	Units	50358436001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.54	107	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358240

QC Batch: 762067
QC Batch Method: HACH 8146
Analysis Method: HACH 8146
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50358240001

METHOD BLANK: 3493223 Matrix: Water
Associated Lab Samples: 50358240001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/10/23 10:49	H3,N2

LABORATORY CONTROL SAMPLE: 3493224

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	100	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3493225 3493226

Parameter	Units	50358390001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	0.69	2.5	2.5	3.3	3.3	103	103	90-110	0	20	H3,N2

MATRIX SPIKE SAMPLE: 3493227

Parameter	Units	50358454002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.0	103	90-110	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358240

QC Batch: 760617
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358240001

METHOD BLANK: 3486236 Matrix: Water
Associated Lab Samples: 50358240001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/02/23 23:59	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/02/23 23:59	

LABORATORY CONTROL SAMPLE: 3486237

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	101	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	104	90-110	

MATRIX SPIKE SAMPLE: 3486238

Parameter	Units	50358219009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.0	99	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	102	90-110	

MATRIX SPIKE SAMPLE: 3486239

Parameter	Units	50358390001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.0	99	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	103	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358240

QC Batch: 761485
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358240001

METHOD BLANK: 3490187 Matrix: Water
Associated Lab Samples: 50358240001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	11/10/23 11:15	

LABORATORY CONTROL SAMPLE: 3490188

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3490189 3490190

Parameter	Units	50358239001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	0.31			1.7	1.7				2		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358240

QC Batch: 762132
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358240001

METHOD BLANK: 3493511 Matrix: Water
Associated Lab Samples: 50358240001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	11/11/23 00:22	

LABORATORY CONTROL SAMPLE: 3493512

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3493513 3493514

Parameter	Units	50358000006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	2.2	80	80	80.7	80.9	98	98	80-120	0	20	

MATRIX SPIKE SAMPLE: 3493515

Parameter	Units	50358214001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	2.8	10	12.6	97	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358240

QC Batch: 761056
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358240001

METHOD BLANK: 3488419 Matrix: Water
Associated Lab Samples: 50358240001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	11/06/23 23:01	

LABORATORY CONTROL SAMPLE: 3488420

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3488421 3488422

Parameter	Units	50358000006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.1	10	10	11.8	11.8	97	97	80-120	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3488424 3488425

Parameter	Units	50358390001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.9	10	10	11.7	11.7	98	98	80-120	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358240

Sample: MW-19A **Lab ID: 50358240001** Collected: 11/01/23 14:20 Received: 11/02/23 09:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.365 ± 0.717 (1.29) C:NA T:89%**	pCi/L	11/17/23 14:58	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.27 ± 0.447 (0.630) C:88% T:83%**	pCi/L	11/16/23 11:16	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.64 ± 1.16 (1.92)**	pCi/L	11/20/23 12:16	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358240

QC Batch: 627813
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50358240001

METHOD BLANK: 3060124 Matrix: Water
Associated Lab Samples: 50358240001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.151 ± 0.362 (0.700) C:NA T:86%	pCi/L	11/17/23 14:58	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358240

QC Batch: 627814
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50358240001

METHOD BLANK: 3060129 Matrix: Water
Associated Lab Samples: 50358240001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.225 ± 0.300 (0.638) C:86% T:82%	pCi/L	11/16/23 11:34	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358240

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
F5	The recovery of the analyte in the CRDL standard (also known as the reporting limit verification) did not meet the acceptance criteria.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358240

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50358240001	**MW-19A**	EPA 9056	761617		
50358240001	**MW-19A**	EPA 3010	760584	EPA 6010	762555
50358240001	**MW-19A**	EPA 3010	762141	EPA 6010	762568
50358240001	**MW-19A**	EPA 200.2	760597	EPA 6020	760819
50358240001	**MW-19A**	EPA 200.2	760848	EPA 6020	760976
50358240001	**MW-19A**	EPA 903.1	627813		
50358240001	**MW-19A**	EPA 904.0	627814		
50358240001	**MW-19A**	Total Radium Calculation	631114		
50358240001	**MW-19A**	SM 2320B	760606		
50358240001	**MW-19A**	SM 2540C	761272		
50358240001	**MW-19A**	SM 4500-H+B	762488		
50358240001	**MW-19A**	SM 4500-S2-D	760793		
50358240001	**MW-19A**	HACH 8146	762067		
50358240001	**MW-19A**	EPA 353.2	760617		
50358240001	**MW-19A**	EPA 365.1	761485	EPA 365.1	762180
50358240001	**MW-19A**	SM 5310C	762132		
50358240001	**MW-19A**	SM 5310C	761056		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analyti

The Chain-of-Custody is a LEGAL DOCUMENT

WO# : 50358240

50358240

Page 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accoun
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P4R3 Nov 2023	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:	170LF01503	Pace Profile #:	10498/53

Regulatory Agency	
State / Location	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO2, NO3 Wet	(Br, Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity*, Ferrous Iron, pH	TOC by 5310C	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum			Residual Chlorine (Y/N)	
	Requested Analysis Filtered (Y/N)																					Y			Y								
1	MW-19a	WT	G	11/1	12:58	11/1	2:20		11	4	2	4		1																		
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
* Metals: 6010 (B, Cd, Fe, Pb, Mo, Ca, Mg, Na, K, Li, sila) (11)	Mohammed Barlami	11-01-23	1600	fedex	11-2-23	1600				
6020 (Al, Mn, Co, As, Se, Ba) (6)	fedex	11-2-23	0920	CR	11-2-23	0920	0.4	4	4	4
** Dissolved FF 6010 (B, Fe, Mo, Mg, K, Li) (6) FF 6020 (Al, Mn) (2)										
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	Carsen Clouser		
SIGNATURE of SAMPLER:	Carsen Clouser	DATE Signed:	11/1/23

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

F-IN-Q-290-rev.23, 26Jun2023

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 11-7-23 1010 CRK

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H
4. **Cooler Temperature(s):** 0.4/0.4 _____ _____ _____
   (Initial/Corrected) **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**
5. **Packing Material:** ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		—
Short Hold Time Analysis (48 hours or less)? **Analysis:** NN2/NO3	—	
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 1200	
Rush TAT Requested (4 days or less):		—
Custody Signatures Present?	—	
Containers Intact?:	—	
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	—	
Extra labels on Terracore Vials? (soils only)		

	Yes	No	N/A
All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** ~~HNO3 (≤2)~~ ~~H2SO4 (≤2)~~ NaOH (>10) ~~NaOH/ZnAc (>9)~~ ~~Any~~ Non-conformance to pH recommendations will be noted on the container count form	—		
	Present	Absent	N/A
Residual Chlorine Check (SVOC 625 Pest/PCB 608)			—
Residual Chlorine Check (Total/Amenable/Free Cyanide)			—
Headspace Wisconsin Sulfide?			—
	Present	Absent	No VOA Vials Sent
Headspace in VOA Vials (>6mm): See Containter Count form for details			—
Trip Blank Present?		—	
Trip Blank Custody Seals?:			—

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1												1	1			2	1	2	1	1	1		1					WT	✓	✓		✓
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP3R	250mL Unpres. FF SO4/OH buffer
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 09, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 03, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50358454001	**MW-20A**	Water	11/02/23 10:57	11/03/23 10:00
50358454002	**MW-20I**	Water	11/02/23 12:40	11/03/23 10:00
50358454003	**MW-19I**	Water	11/02/23 10:45	11/03/23 10:00

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50358454001	**MW-20A**	EPA 9056	ADM	4	PASI-I
		EPA 6010	FRW	11	PASI-I
		EPA 6010	FRW	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50358454002	**MW-20I**	EPA 9056	ADM	4	PASI-I
		EPA 6010	FRW	11	PASI-I
		EPA 6010	FRW	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50358454003	**MW-19I**	EPA 9056	ADM	4	PASI-I
		EPA 6010	FRW	11	PASI-I
		EPA 6010	FRW	6	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	CAW	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50358454001	**MW-20A**					
EPA 9056	Bromide	0.73	mg/L	0.050	11/10/23 05:52	
EPA 9056	Chloride	48.7	mg/L	2.5	11/10/23 06:10	
EPA 9056	Sulfate	585	mg/L	25.0	11/16/23 02:04	
EPA 6010	Boron	13000	ug/L	100	11/13/23 13:11	
EPA 6010	Calcium	364000	ug/L	5000	11/13/23 13:42	
EPA 6010	Iron	7220	ug/L	100	11/13/23 13:11	
EPA 6010	Magnesium	29600	ug/L	1000	11/13/23 13:11	
EPA 6010	Molybdenum	362	ug/L	10.0	11/13/23 13:11	
EPA 6010	Potassium	5840	ug/L	1000	11/13/23 13:11	
EPA 6010	Silica	13000	ug/L	450	11/13/23 13:11	N2
EPA 6010	Sodium	27100	ug/L	1000	11/13/23 13:11	
EPA 6010	Boron, Dissolved	12400	ug/L	100	11/13/23 14:08	
EPA 6010	Iron, Dissolved	6910	ug/L	100	11/13/23 14:08	
EPA 6010	Magnesium, Dissolved	29300	ug/L	1000	11/13/23 14:08	
EPA 6010	Molybdenum, Dissolved	347	ug/L	10.0	11/13/23 14:08	
EPA 6010	Potassium, Dissolved	5630	ug/L	1000	11/13/23 14:08	
EPA 6020	Arsenic	1.6	ug/L	1.0	11/07/23 05:11	
EPA 6020	Barium	30.1	ug/L	1.0	11/07/23 05:11	
EPA 6020	Manganese	1270	ug/L	10.0	11/07/23 04:47	
EPA 6020	Manganese, Dissolved	1280	ug/L	10.0	11/06/23 19:34	
EPA 903.1	Radium-226	0.107 ± 0.365 (0.704) C:NA T:87%	pCi/L		11/29/23 12:31	
EPA 904.0	Radium-228	0.943 ± 0.429 (0.687) C:77% T:85%	pCi/L		11/27/23 16:30	
Total Radium Calculation	Total Radium	1.05 ± 0.794 (1.39)	pCi/L		11/30/23 08:51	
SM 2320B	Alkalinity, Total as CaCO3	225	mg/L	10.0	11/03/23 23:05	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	225	mg/L	10.0	11/03/23 23:05	
SM 2540C	Total Dissolved Solids	1360	mg/L	20.0	11/08/23 14:03	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	11/14/23 15:01	H3
HACH 8146	Iron, Ferrous	0.34	mg/L	0.20	11/10/23 11:20	H3,N2
EPA 365.1	Phosphate as P04	0.35	mg/L	0.15	11/14/23 17:08	
SM 5310C	Total Organic Carbon	1.1	mg/L	1.0	11/11/23 09:17	
SM 5310C	Dissolved Organic Carbon	3.7	mg/L	1.0	11/15/23 00:31	
50358454002	**MW-20I**					
EPA 9056	Bromide	0.051	mg/L	0.050	11/10/23 06:42	
EPA 9056	Chloride	9.4	mg/L	0.25	11/10/23 06:42	
EPA 9056	Sulfate	44.7	mg/L	0.25	11/10/23 06:42	
EPA 6010	Boron	339	ug/L	100	11/13/23 13:18	
EPA 6010	Calcium	115000	ug/L	1000	11/13/23 13:18	
EPA 6010	Iron	157	ug/L	100	11/13/23 13:18	
EPA 6010	Magnesium	24600	ug/L	1000	11/13/23 13:18	
EPA 6010	Silica	11300	ug/L	450	11/13/23 13:18	N2

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50358454002	**MW-20I**					
EPA 6010	Sodium	5260	ug/L	1000	11/13/23 13:18	
EPA 6010	Boron, Dissolved	348	ug/L	100	11/13/23 14:10	
EPA 6010	Magnesium, Dissolved	25000	ug/L	1000	11/13/23 14:10	
EPA 6020	Aluminum	45.4	ug/L	10.0	11/07/23 05:15	
EPA 6020	Barium	50.8	ug/L	1.0	11/07/23 05:15	
EPA 6020	Cobalt	1.4	ug/L	1.0	11/07/23 05:15	
EPA 6020	Manganese	1770	ug/L	10.0	11/07/23 04:51	
EPA 6020	Selenium	1.8	ug/L	1.0	11/07/23 05:15	
EPA 6020	Manganese, Dissolved	1770	ug/L	25.0	11/06/23 19:38	
EPA 903.1	Radium-226	-0.168 ± 0.396 (0.887) C:NA T:84%	pCi/L		11/29/23 12:31	
EPA 904.0	Radium-228	0.339 ± 0.322 (0.651) C:82% T:82%	pCi/L		11/27/23 16:30	
Total Radium Calculation	Total Radium	0.339 ± 0.718 (1.54)	pCi/L		11/30/23 08:51	
SM 2320B	Alkalinity, Total as CaCO3	328	mg/L	10.0	11/03/23 23:05	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	314	mg/L	10.0	11/03/23 23:05	
SM 2320B	Alkalinity,Carbonate (CaCO3)	13.6	mg/L	10.0	11/03/23 23:05	
SM 2540C	Total Dissolved Solids	424	mg/L	10.0	11/08/23 14:04	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	11/14/23 15:02	H3
EPA 353.2	Nitrogen, Nitrate	3.3	mg/L	0.10	11/04/23 00:40	
SM 5310C	Dissolved Organic Carbon	1.6	mg/L	1.0	11/15/23 00:42	
50358454003	**MW-19I**					
EPA 9056	Bromide	0.058	mg/L	0.050	11/10/23 08:00	
EPA 9056	Chloride	10.0	mg/L	0.25	11/10/23 08:00	
EPA 9056	Sulfate	46.1	mg/L	2.5	11/10/23 08:16	
EPA 6010	Boron	656	ug/L	100	11/13/23 13:19	
EPA 6010	Calcium	113000	ug/L	1000	11/13/23 13:19	
EPA 6010	Iron	206	ug/L	100	11/13/23 13:19	
EPA 6010	Magnesium	26200	ug/L	1000	11/13/23 13:19	
EPA 6010	Silica	10500	ug/L	450	11/13/23 13:19	N2
EPA 6010	Sodium	7410	ug/L	1000	11/13/23 13:19	
EPA 6010	Boron, Dissolved	654	ug/L	100	11/13/23 14:11	
EPA 6010	Magnesium, Dissolved	26000	ug/L	1000	11/13/23 14:11	
EPA 6020	Barium	62.2	ug/L	1.0	11/07/23 05:18	
EPA 6020	Cobalt	1.6	ug/L	1.0	11/07/23 05:18	
EPA 6020	Manganese	1920	ug/L	20.0	11/07/23 04:54	
EPA 6020	Manganese, Dissolved	1850	ug/L	20.0	11/06/23 19:41	
EPA 903.1	Radium-226	-0.392 ± 0.481 (1.09) C:NA T:89%	pCi/L		11/29/23 12:31	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50358454003	**MW-19I**					
EPA 904.0	Radium-228	0.979 ± 0.474 (0.789) C:72% T:80%	pCi/L		11/27/23 16:30	
Total Radium Calculation	Total Radium	0.979 ± 0.955 (1.88)	pCi/L		11/30/23 08:51	
SM 2320B	Alkalinity, Total as CaCO3	321	mg/L	10.0	11/03/23 23:05	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	307	mg/L	10.0	11/03/23 23:05	
SM 2320B	Alkalinity,Carbonate (CaCO3)	14.4	mg/L	10.0	11/03/23 23:05	
SM 2540C	Total Dissolved Solids	422	mg/L	10.0	11/08/23 14:04	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	11/14/23 15:02	H3
EPA 353.2	Nitrogen, Nitrate	2.6	mg/L	0.10	11/04/23 00:22	
SM 5310C	Dissolved Organic Carbon	2.0	mg/L	1.0	11/15/23 00:53	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

Sample: MW-20A **Lab ID: 50358454001** Collected: 11/02/23 10:57 Received: 11/03/23 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.73**	mg/L	0.050	0.0090	1		11/10/23 05:52	24959-67-9	
Chloride	**48.7**	mg/L	2.5	0.67	10		11/10/23 06:10	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/10/23 05:52	16984-48-8	
Sulfate	**585**	mg/L	25.0	19.0	100		11/16/23 02:04	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**13000**	ug/L	100	6.2	1	11/08/23 20:56	11/13/23 13:11	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/08/23 20:56	11/13/23 13:11	7440-43-9	
Calcium	**364000**	ug/L	5000	338	5	11/08/23 20:56	11/13/23 13:42	7440-70-2	
Iron	**7220**	ug/L	100	30.0	1	11/08/23 20:56	11/13/23 13:11	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	11/08/23 20:56	11/13/23 13:11	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/08/23 20:56	11/13/23 13:11	7439-93-2	
Magnesium	**29600**	ug/L	1000	33.6	1	11/08/23 20:56	11/13/23 13:11	7439-95-4	
Molybdenum	**362**	ug/L	10.0	0.78	1	11/08/23 20:56	11/13/23 13:11	7439-98-7	
Potassium	**5840**	ug/L	1000	97.8	1	11/08/23 20:56	11/13/23 13:11	7440-09-7	
Silica	**13000**	ug/L	450		1	11/08/23 20:56	11/13/23 13:11	7631-86-9	N2
Sodium	**27100**	ug/L	1000	54.8	1	11/08/23 20:56	11/13/23 13:11	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**12400**	ug/L	100	6.2	1	11/12/23 20:56	11/13/23 14:08	7440-42-8	
Iron, Dissolved	**6910**	ug/L	100	30.0	1	11/12/23 20:56	11/13/23 14:08	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/12/23 20:56	11/13/23 14:08	7439-93-2	
Magnesium, Dissolved	**29300**	ug/L	1000	33.6	1	11/12/23 20:56	11/13/23 14:08	7439-95-4	
Molybdenum, Dissolved	**347**	ug/L	10.0	0.78	1	11/12/23 20:56	11/13/23 14:08	7439-98-7	
Potassium, Dissolved	**5630**	ug/L	1000	97.8	1	11/12/23 20:56	11/13/23 14:08	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	2.3	1	11/05/23 10:00	11/07/23 05:11	7429-90-5	
Arsenic	**1.6**	ug/L	1.0	0.075	1	11/05/23 10:00	11/07/23 05:11	7440-38-2	
Barium	**30.1**	ug/L	1.0	0.077	1	11/05/23 10:00	11/07/23 05:11	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/05/23 10:00	11/07/23 05:11	7440-48-4	
Manganese	**1270**	ug/L	10.0	1.7	10	11/05/23 10:00	11/07/23 04:47	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	11/05/23 10:00	11/07/23 05:11	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	11/05/23 10:00	11/06/23 20:59	7429-90-5	
Manganese, Dissolved	**1280**	ug/L	10.0	1.7	10	11/05/23 10:00	11/06/23 19:34	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

Sample: MW-20A **Lab ID: 50358454001** Collected: 11/02/23 10:57 Received: 11/03/23 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**225**	mg/L	10.0	10.0	1		11/03/23 23:05		
Alkalinity,Bicarbonate (CaCO3)	**225**	mg/L	10.0	10.0	1		11/03/23 23:05		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/03/23 23:05		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1360**	mg/L	20.0	20.0	1		11/08/23 14:03		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.6**	Std. Units	0.10	0.10	1		11/14/23 15:01		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/03/23 15:41	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**0.34**	mg/L	0.20	0.035	1		11/10/23 11:20	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/04/23 00:24	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/04/23 00:24	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.35**	mg/L	0.15	0.15	1	11/09/23 16:00	11/14/23 17:08		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.1**	mg/L	1.0	0.24	1		11/11/23 09:17	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.7**	mg/L	1.0	0.24	1		11/15/23 00:31		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

Sample: MW-20I **Lab ID: 50358454002** Collected: 11/02/23 12:40 Received: 11/03/23 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.051**	mg/L	0.050	0.0090	1		11/10/23 06:42	24959-67-9	
Chloride	**9.4**	mg/L	0.25	0.067	1		11/10/23 06:42	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/10/23 06:42	16984-48-8	
Sulfate	**44.7**	mg/L	0.25	0.19	1		11/10/23 06:42	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**339**	ug/L	100	6.2	1	11/08/23 20:56	11/13/23 13:18	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/08/23 20:56	11/13/23 13:18	7440-43-9	
Calcium	**115000**	ug/L	1000	67.7	1	11/08/23 20:56	11/13/23 13:18	7440-70-2	
Iron	**157**	ug/L	100	30.0	1	11/08/23 20:56	11/13/23 13:18	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	11/08/23 20:56	11/13/23 13:18	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/08/23 20:56	11/13/23 13:18	7439-93-2	
Magnesium	**24600**	ug/L	1000	33.6	1	11/08/23 20:56	11/13/23 13:18	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	11/08/23 20:56	11/13/23 13:18	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	11/08/23 20:56	11/13/23 13:18	7440-09-7	
Silica	**11300**	ug/L	450		1	11/08/23 20:56	11/13/23 13:18	7631-86-9	N2
Sodium	**5260**	ug/L	1000	54.8	1	11/08/23 20:56	11/13/23 13:18	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**348**	ug/L	100	6.2	1	11/12/23 20:56	11/13/23 14:10	7440-42-8	
Iron, Dissolved	ND	ug/L	100	30.0	1	11/12/23 20:56	11/13/23 14:10	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/12/23 20:56	11/13/23 14:10	7439-93-2	
Magnesium, Dissolved	**25000**	ug/L	1000	33.6	1	11/12/23 20:56	11/13/23 14:10	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	11/12/23 20:56	11/13/23 14:10	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	97.8	1	11/12/23 20:56	11/13/23 14:10	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**45.4**	ug/L	10.0	2.3	1	11/05/23 10:00	11/07/23 05:15	7429-90-5	
Arsenic	ND	ug/L	1.0	0.075	1	11/05/23 10:00	11/07/23 05:15	7440-38-2	
Barium	**50.8**	ug/L	1.0	0.077	1	11/05/23 10:00	11/07/23 05:15	7440-39-3	
Cobalt	**1.4**	ug/L	1.0	0.046	1	11/05/23 10:00	11/07/23 05:15	7440-48-4	
Manganese	**1770**	ug/L	10.0	1.7	10	11/05/23 10:00	11/07/23 04:51	7439-96-5	
Selenium	**1.8**	ug/L	1.0	0.20	1	11/05/23 10:00	11/07/23 05:15	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	11/05/23 10:00	11/06/23 21:02	7429-90-5	
Manganese, Dissolved	**1770**	ug/L	25.0	4.2	25	11/05/23 10:00	11/06/23 19:38	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

Sample: MW-20I **Lab ID: 50358454002** Collected: 11/02/23 12:40 Received: 11/03/23 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**328**	mg/L	10.0	10.0	1		11/03/23 23:05		
Alkalinity,Bicarbonate (CaCO3)	**314**	mg/L	10.0	10.0	1		11/03/23 23:05		
Alkalinity,Carbonate (CaCO3)	**13.6**	mg/L	10.0	10.0	1		11/03/23 23:05		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**424**	mg/L	10.0	10.0	1		11/08/23 14:04		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.6**	Std. Units	0.10	0.10	1		11/14/23 15:02		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/03/23 15:41	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/10/23 11:22	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**3.3**	mg/L	0.10	0.011	1		11/04/23 00:40	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/04/23 00:40	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/09/23 16:00	11/14/23 17:09		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.24	1		11/11/23 10:02	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.6**	mg/L	1.0	0.24	1		11/15/23 00:42		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

Sample: MW-19I **Lab ID: 50358454003** Collected: 11/02/23 10:45 Received: 11/03/23 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.058**	mg/L	0.050	0.0090	1		11/10/23 08:00	24959-67-9	
Chloride	**10.0**	mg/L	0.25	0.067	1		11/10/23 08:00	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/10/23 08:00	16984-48-8	
Sulfate	**46.1**	mg/L	2.5	1.9	10		11/10/23 08:16	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**656**	ug/L	100	6.2	1	11/08/23 20:56	11/13/23 13:19	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/08/23 20:56	11/13/23 13:19	7440-43-9	
Calcium	**113000**	ug/L	1000	67.7	1	11/08/23 20:56	11/13/23 13:19	7440-70-2	
Iron	**206**	ug/L	100	30.0	1	11/08/23 20:56	11/13/23 13:19	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	11/08/23 20:56	11/13/23 13:19	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/08/23 20:56	11/13/23 13:19	7439-93-2	
Magnesium	**26200**	ug/L	1000	33.6	1	11/08/23 20:56	11/13/23 13:19	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	11/08/23 20:56	11/13/23 13:19	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	11/08/23 20:56	11/13/23 13:19	7440-09-7	
Silica	**10500**	ug/L	450		1	11/08/23 20:56	11/13/23 13:19	7631-86-9	N2
Sodium	**7410**	ug/L	1000	54.8	1	11/08/23 20:56	11/13/23 13:19	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**654**	ug/L	100	6.2	1	11/12/23 20:56	11/13/23 14:11	7440-42-8	
Iron, Dissolved	ND	ug/L	100	30.0	1	11/12/23 20:56	11/13/23 14:11	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/12/23 20:56	11/13/23 14:11	7439-93-2	
Magnesium, Dissolved	**26000**	ug/L	1000	33.6	1	11/12/23 20:56	11/13/23 14:11	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	11/12/23 20:56	11/13/23 14:11	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	97.8	1	11/12/23 20:56	11/13/23 14:11	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	2.3	1	11/05/23 10:00	11/07/23 05:18	7429-90-5	
Arsenic	ND	ug/L	1.0	0.075	1	11/05/23 10:00	11/07/23 05:18	7440-38-2	
Barium	**62.2**	ug/L	1.0	0.077	1	11/05/23 10:00	11/07/23 05:18	7440-39-3	
Cobalt	**1.6**	ug/L	1.0	0.046	1	11/05/23 10:00	11/07/23 05:18	7440-48-4	
Manganese	**1920**	ug/L	20.0	3.4	20	11/05/23 10:00	11/07/23 04:54	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	11/05/23 10:00	11/07/23 05:18	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	11/05/23 10:00	11/06/23 21:13	7429-90-5	
Manganese, Dissolved	**1850**	ug/L	20.0	3.4	20	11/05/23 10:00	11/06/23 19:41	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

Sample: MW-19I **Lab ID: 50358454003** Collected: 11/02/23 10:45 Received: 11/03/23 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**321**	mg/L	10.0	10.0	1		11/03/23 23:05		
Alkalinity,Bicarbonate (CaCO3)	**307**	mg/L	10.0	10.0	1		11/03/23 23:05		
Alkalinity,Carbonate (CaCO3)	**14.4**	mg/L	10.0	10.0	1		11/03/23 23:05		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**422**	mg/L	10.0	10.0	1		11/08/23 14:04		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.6**	Std. Units	0.10	0.10	1		11/14/23 15:02		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/03/23 15:41	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/10/23 11:20	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**2.6**	mg/L	0.10	0.011	1		11/04/23 00:22	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/04/23 00:22	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/09/23 16:00	11/14/23 17:09		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.24	1		11/11/23 10:27	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.0**	mg/L	1.0	0.24	1		11/15/23 00:53		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

QC Batch: 761640
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358454001, 50358454002, 50358454003

METHOD BLANK: 3490967 Matrix: Water
Associated Lab Samples: 50358454001, 50358454002, 50358454003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	11/09/23 12:06	
Chloride	mg/L	ND	0.25	0.067	11/09/23 12:06	
Fluoride	mg/L	ND	0.10	0.017	11/09/23 12:06	
Sulfate	mg/L	ND	0.25	0.19	11/09/23 12:06	

LABORATORY CONTROL SAMPLE: 3490968

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.97	97	80-120	
Chloride	mg/L	2.5	2.4	94	80-120	
Fluoride	mg/L	1	1.0	100	80-120	
Sulfate	mg/L	5	4.9	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3490969 3490970

Parameter	Units	50358390001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	0.27	1	1	1.2	1.2	94	94	80-120	0	15	
Chloride	mg/L	129	25	25	152	152	91	93	80-120	0	15	
Fluoride	mg/L	0.26	1	1	1.3	1.3	101	101	80-120	0	15	
Sulfate	mg/L	85.5	50	50	131	132	92	92	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

QC Batch: 761569
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358454001, 50358454002, 50358454003

METHOD BLANK: 3490608 Matrix: Water
Associated Lab Samples: 50358454001, 50358454002, 50358454003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	11/13/23 13:08	
Cadmium	ug/L	ND	2.0	0.60	11/13/23 13:08	
Calcium	ug/L	ND	1000	67.7	11/13/23 13:08	
Iron	ug/L	ND	100	30.0	11/13/23 13:08	
Lead	ug/L	ND	10.0	2.5	11/13/23 13:08	
Lithium	ug/L	ND	20.0	6.8	11/13/23 13:08	
Magnesium	ug/L	ND	1000	33.6	11/13/23 13:08	
Molybdenum	ug/L	ND	10.0	0.78	11/13/23 13:08	
Potassium	ug/L	ND	1000	97.8	11/13/23 13:08	
Silica	ug/L	ND	450		11/13/23 13:08	N2
Sodium	ug/L	ND	1000	54.8	11/13/23 13:08	

LABORATORY CONTROL SAMPLE: 3490609

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	912	91	80-120	
Cadmium	ug/L	1000	966	97	80-120	
Calcium	ug/L	10000	9910	99	80-120	
Iron	ug/L	10000	9900	99	80-120	
Lead	ug/L	1000	922	92	80-120	
Lithium	ug/L	1000	946	95	80-120	
Magnesium	ug/L	10000	9540	95	80-120	
Molybdenum	ug/L	1000	1010	101	80-120	
Potassium	ug/L	10000	9220	92	80-120	
Silica	ug/L	10700	10500	99	80-120	N2
Sodium	ug/L	10000	8980	90	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3490610 3490611

Parameter	Units	50358454001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	13000	1000	1000	14200	13900	119	92	75-125	2	20	
Cadmium	ug/L	ND	1000	1000	1000	994	100	99	75-125	1	20	
Calcium	ug/L	364000	10000	10000	378000	370000	139	58	75-125	2	20	P6
Iron	ug/L	7220	10000	10000	16900	16600	97	94	75-125	1	20	
Lead	ug/L	ND	1000	1000	880	875	88	87	75-125	1	20	
Lithium	ug/L	ND	1000	1000	967	959	97	96	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3490610 3490611

Parameter	Units	50358454001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Magnesium	ug/L	29600	10000	10000	38800	38000	92	85	75-125	2	20	
Molybdenum	ug/L	362	1000	1000	1400	1380	104	102	75-125	1	20	
Potassium	ug/L	5840	10000	10000	15500	15000	96	92	75-125	3	20	
Silica	ug/L	13000	10700	10700	24000	23600	103	99	75-125	2	20	N2
Sodium	ug/L	27100	10000	10000	36500	35600	93	84	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

QC Batch: 762143
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358454001, 50358454002, 50358454003

METHOD BLANK: 3493555 Matrix: Water
Associated Lab Samples: 50358454001, 50358454002, 50358454003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	11/13/23 13:47	
Iron, Dissolved	ug/L	ND	100	30.0	11/13/23 13:47	
Lithium, Dissolved	ug/L	ND	20.0	6.8	11/13/23 13:47	
Magnesium, Dissolved	ug/L	ND	1000	33.6	11/13/23 13:47	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	11/13/23 13:47	
Potassium, Dissolved	ug/L	ND	1000	97.8	11/13/23 13:47	

LABORATORY CONTROL SAMPLE: 3493556

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	2000	1770	89	80-120	
Iron, Dissolved	ug/L	20000	18600	93	80-120	
Lithium, Dissolved	ug/L	2000	1760	88	80-120	
Magnesium, Dissolved	ug/L	20000	17800	89	80-120	
Molybdenum, Dissolved	ug/L	2000	1930	96	80-120	
Potassium, Dissolved	ug/L	20000	17300	87	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3493557 3493558

Parameter	Units	50358390001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	203	1000	1000	1100	1140	90	94	75-125	4	20	
Iron, Dissolved	ug/L	2210	10000	10000	11100	11600	89	94	75-125	4	20	
Lithium, Dissolved	ug/L	ND	1000	1000	844	889	84	89	75-125	5	20	
Magnesium, Dissolved	ug/L	24100	10000	10000	32500	32900	84	89	75-125	1	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	942	978	93	97	75-125	4	20	
Potassium, Dissolved	ug/L	5980	10000	10000	14200	14700	83	87	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

QC Batch: 760849
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358454001, 50358454002, 50358454003

METHOD BLANK: 3487263 Matrix: Water
Associated Lab Samples: 50358454001, 50358454002, 50358454003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	2.3	11/07/23 03:36	
Arsenic	ug/L	ND	1.0	0.075	11/07/23 03:36	
Barium	ug/L	ND	1.0	0.077	11/07/23 03:36	
Cobalt	ug/L	ND	1.0	0.046	11/07/23 03:36	
Manganese	ug/L	ND	1.0	0.17	11/07/23 03:36	
Selenium	ug/L	ND	1.0	0.20	11/07/23 03:36	

LABORATORY CONTROL SAMPLE: 3487264

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	407	102	80-120	
Arsenic	ug/L	40	39.7	99	80-120	
Barium	ug/L	40	39.9	100	80-120	
Cobalt	ug/L	40	42.1	105	80-120	
Manganese	ug/L	40	41.4	103	80-120	
Selenium	ug/L	40	40.7	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3487265 3487266

Parameter	Units	50358390001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	ND	400	400	406	397	101	99	75-125	2	20	
Arsenic	ug/L	2.8	40	40	41.8	41.5	97	97	75-125	1	20	
Barium	ug/L	213	40	40	258	251	111	96	75-125	2	20	E
Cobalt	ug/L	ND	40	40	39.2	39.4	98	98	75-125	1	20	
Manganese	ug/L	274	40	40	308	311	86	93	75-125	1	20	E
Selenium	ug/L	ND	40	40	40.5	39.5	101	99	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

QC Batch: 760848
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358454001, 50358454002, 50358454003

METHOD BLANK: 3487259 Matrix: Water
Associated Lab Samples: 50358454001, 50358454002, 50358454003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.3	11/06/23 18:36	
Manganese, Dissolved	ug/L	ND	1.0	0.17	11/06/23 18:36	

LABORATORY CONTROL SAMPLE: 3487260

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	414	104	80-120	
Manganese, Dissolved	ug/L	40	41.8	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3487261 3487262

Parameter	Units	50358239001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	416	416	104	103	75-125	0	20	
Manganese, Dissolved	ug/L	190	40	40	227	229	93	96	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

QC Batch: 760838 | Analysis Method: SM 2320B
QC Batch Method: SM 2320B | Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358454001, 50358454002, 50358454003

METHOD BLANK: 3487203 Matrix: Water
Associated Lab Samples: 50358454001, 50358454002, 50358454003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/03/23 23:05	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/03/23 23:05	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/03/23 23:05	

LABORATORY CONTROL SAMPLE: 3487204

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.8	100	90-110	

SAMPLE DUPLICATE: 3487205

Parameter	Units	50358390001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	253	259	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	253	259	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3487206

Parameter	Units	50358403008 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	569	580	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	569	580	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

QC Batch: 761523
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358454001, 50358454002, 50358454003

METHOD BLANK: 3490336 Matrix: Water
Associated Lab Samples: 50358454001, 50358454002, 50358454003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/08/23 14:02	

LABORATORY CONTROL SAMPLE: 3490337

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	281	94	80-120	

SAMPLE DUPLICATE: 3490338

Parameter	Units	50358435001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	314	321	2	10	

SAMPLE DUPLICATE: 3490339

Parameter	Units	50358597004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	826	818	1	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

QC Batch: 762884
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358454001, 50358454002, 50358454003

SAMPLE DUPLICATE: 3496538

Parameter	Units	50358390001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.8	6.8	1	2	H3

SAMPLE DUPLICATE: 3496539

Parameter	Units	50358403008 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.0	7.0	0	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

QC Batch: 760793
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358454001, 50358454002, 50358454003

METHOD BLANK: 3486941 Matrix: Water
Associated Lab Samples: 50358454001, 50358454002, 50358454003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/03/23 15:41	

LABORATORY CONTROL SAMPLE: 3486942

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.51	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3486943 3486944

Parameter	Units	50358390001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.50	0.50	99	98	90-110	1	20	

MATRIX SPIKE SAMPLE: 3486945

Parameter	Units	50358436001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.54	107	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

QC Batch: 762067
QC Batch Method: HACH 8146
Analysis Method: HACH 8146
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358454001, 50358454002, 50358454003

METHOD BLANK: 3493223 Matrix: Water
Associated Lab Samples: 50358454001, 50358454002, 50358454003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/10/23 10:49	H3,N2

LABORATORY CONTROL SAMPLE: 3493224

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	100	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3493225 3493226

Parameter	Units	50358390001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	0.69	2.5	2.5	3.3	3.3	103	103	90-110	0	20	H3,N2

MATRIX SPIKE SAMPLE: 3493227

Parameter	Units	50358454002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.0	103	90-110	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

QC Batch: 760854
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358454001, 50358454002, 50358454003

METHOD BLANK: 3487288 Matrix: Water
Associated Lab Samples: 50358454001, 50358454002, 50358454003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/03/23 23:50	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/03/23 23:50	

LABORATORY CONTROL SAMPLE: 3487289

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.1	107	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3487290 3487291

Parameter	Units	50358423011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.0	1.1	103	105	90-110	2	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.1	1.1	106	106	90-110	0	20	

MATRIX SPIKE SAMPLE: 3487292

Parameter	Units	50358423013 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.1	106	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.1	105	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

QC Batch: 761823
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358454001, 50358454002, 50358454003

METHOD BLANK: 3491765 Matrix: Water
Associated Lab Samples: 50358454001, 50358454002, 50358454003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	11/14/23 17:01	

LABORATORY CONTROL SAMPLE: 3491766

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3491767 3491768

Parameter	Units	50358969001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.6	1.6				1		

MATRIX SPIKE SAMPLE: 3491769

Parameter	Units	50359113001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	6.0		7.7			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

QC Batch: 762135
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358454001, 50358454002, 50358454003

METHOD BLANK: 3493531 Matrix: Water
Associated Lab Samples: 50358454001, 50358454002, 50358454003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	11/11/23 05:59	

LABORATORY CONTROL SAMPLE: 3493532

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.7	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3493533 3493534

Parameter	Units	50358403008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	4.8	40	40	44.9	44.3	100	99	80-120	1	20	

MATRIX SPIKE SAMPLE: 3493535

Parameter	Units	50358454001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.1	10	16.7	156	80-120	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

QC Batch: 762633
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358454001, 50358454002, 50358454003

METHOD BLANK: 3495673 Matrix: Water
Associated Lab Samples: 50358454001, 50358454002, 50358454003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	11/14/23 19:55	

LABORATORY CONTROL SAMPLE: 3495674

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495675 3495676

Parameter	Units	50358403008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	6.8	10	10	16.1	16.2	93	94	80-120	0	20	

MATRIX SPIKE SAMPLE: 3495677

Parameter	Units	50358403009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	8.5	10	17.9	94	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

Sample: MW-20A **Lab ID: 50358454001** Collected: 11/02/23 10:57 Received: 11/03/23 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.107 ± 0.365 (0.704) C:NA T:87%**	pCi/L	11/29/23 12:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.943 ± 0.429 (0.687) C:77% T:85%**	pCi/L	11/27/23 16:30	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.05 ± 0.794 (1.39)**	pCi/L	11/30/23 08:51	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

Sample: MW-20I **Lab ID: 50358454002** Collected: 11/02/23 12:40 Received: 11/03/23 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.168 ± 0.396 (0.887) C:NA T:84%**	pCi/L	11/29/23 12:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.339 ± 0.322 (0.651) C:82% T:82%**	pCi/L	11/27/23 16:30	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.339 ± 0.718 (1.54)**	pCi/L	11/30/23 08:51	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

Sample: MW-19I **Lab ID: 50358454003** Collected: 11/02/23 10:45 Received: 11/03/23 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.392 ± 0.481 (1.09) C:NA T:89%**	pCi/L	11/29/23 12:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.979 ± 0.474 (0.789) C:72% T:80%**	pCi/L	11/27/23 16:30	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.979 ± 0.955 (1.88)**	pCi/L	11/30/23 08:51	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

QC Batch: 629058
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50358454001, 50358454002, 50358454003

METHOD BLANK: 3066687 Matrix: Water
Associated Lab Samples: 50358454001, 50358454002, 50358454003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0425 ± 0.194 (0.458) C:NA T:94%	pCi/L	11/29/23 12:31	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

QC Batch: 629059
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50358454001, 50358454002, 50358454003

METHOD BLANK: 3066691
Matrix: Water
Associated Lab Samples: 50358454001, 50358454002, 50358454003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.194 ± 0.348 (0.762) C:80% T:84%	pCi/L	11/27/23 16:27	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50358454001	**MW-20A**	EPA 9056	761640		
50358454002	**MW-20I**	EPA 9056	761640		
50358454003	**MW-19I**	EPA 9056	761640		
50358454001	**MW-20A**	EPA 3010	761569	EPA 6010	762571
50358454002	**MW-20I**	EPA 3010	761569	EPA 6010	762571
50358454003	**MW-19I**	EPA 3010	761569	EPA 6010	762571
50358454001	**MW-20A**	EPA 3010	762143	EPA 6010	762576
50358454002	**MW-20I**	EPA 3010	762143	EPA 6010	762576
50358454003	**MW-19I**	EPA 3010	762143	EPA 6010	762576
50358454001	**MW-20A**	EPA 200.2	760849	EPA 6020	760974
50358454002	**MW-20I**	EPA 200.2	760849	EPA 6020	760974
50358454003	**MW-19I**	EPA 200.2	760849	EPA 6020	760974
50358454001	**MW-20A**	EPA 200.2	760848	EPA 6020	760976
50358454002	**MW-20I**	EPA 200.2	760848	EPA 6020	760976
50358454003	**MW-19I**	EPA 200.2	760848	EPA 6020	760976
50358454001	**MW-20A**	EPA 903.1	629058		
50358454002	**MW-20I**	EPA 903.1	629058		
50358454003	**MW-19I**	EPA 903.1	629058		
50358454001	**MW-20A**	EPA 904.0	629059		
50358454002	**MW-20I**	EPA 904.0	629059		
50358454003	**MW-19I**	EPA 904.0	629059		
50358454001	**MW-20A**	Total Radium Calculation	632884		
50358454002	**MW-20I**	Total Radium Calculation	632884		
50358454003	**MW-19I**	Total Radium Calculation	632884		
50358454001	**MW-20A**	SM 2320B	760838		
50358454002	**MW-20I**	SM 2320B	760838		
50358454003	**MW-19I**	SM 2320B	760838		
50358454001	**MW-20A**	SM 2540C	761523		
50358454002	**MW-20I**	SM 2540C	761523		
50358454003	**MW-19I**	SM 2540C	761523		
50358454001	**MW-20A**	SM 4500-H+B	762884		
50358454002	**MW-20I**	SM 4500-H+B	762884		
50358454003	**MW-19I**	SM 4500-H+B	762884		
50358454001	**MW-20A**	SM 4500-S2-D	760793		
50358454002	**MW-20I**	SM 4500-S2-D	760793		
50358454003	**MW-19I**	SM 4500-S2-D	760793		
50358454001	**MW-20A**	HACH 8146	762067		
50358454002	**MW-20I**	HACH 8146	762067		
50358454003	**MW-19I**	HACH 8146	762067		
50358454001	**MW-20A**	EPA 353.2	760854		
50358454002	**MW-20I**	EPA 353.2	760854		
50358454003	**MW-19I**	EPA 353.2	760854		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358454

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50358454001	**MW-20A**	EPA 365.1	761823	EPA 365.1	762969
50358454002	**MW-20I**	EPA 365.1	761823	EPA 365.1	762969
50358454003	**MW-19I**	EPA 365.1	761823	EPA 365.1	762969
50358454001	**MW-20A**	SM 5310C	762135		
50358454002	**MW-20I**	SM 5310C	762135		
50358454003	**MW-19I**	SM 5310C	762135		
50358454001	**MW-20A**	SM 5310C	762633		
50358454002	**MW-20I**	SM 5310C	762633		
50358454003	**MW-19I**	SM 5310C	762633		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

50358454

Pace Analytical®
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P4R3 Nov 2023	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:		Pace Profile #:	10498/53

Regulatory Agency
State / Location
IN

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test (Y/N)	TDS/ NO2, NO3 Wet	(Br, Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered** (Y)	Alkalinity*, Ferrous Iron, pH	TOC by 5310C	DOC by 5310C (Y)	Sulfide	Phosphate	Rad-226/228 + Sum			Residual Chlorine (Y/N)	
1	MW-20A	WT	G	11/2	10:26	11/2	10:57		11	X	X	X		X					X	X	X	X	X	X	X	X	X	X				001
2	MW-20 I	WT	G	11/2	11:45	11/2	12:40		11	X	X	X		X					X	X	X	X	X	X	X	X	X	X				002
3	MW-19 I	WT	G	11/2	10:10	11/2	10:45		11	X	X	X		X					X	X	X	X	X	X	X	X	X	X				003
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
* Metals: 6010 (B, Cd, Fe, Pb, Mo, Ca, Mg, Na, K, Li, sila) (11)	Mohammed Bazlamit	11/02	16:00	Jay Williams	11/3	7.45				
6020 (Al, Mn, Co, As, Se, Ba) (6)	Jay Williams	11/2	10:00	Nick Stitch / PACE	11-3-23	10:00	SEE SCVR	Y	Y	Y
** Dissolved FF 6010 (B, Fe, Mo, Mg, K, Li) (6) FF 6020 (Al, Mn) (2)										
Rad 226/2228 to Pace PA							TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Carsen Clouser

SIGNATURE of SAMPLER: Carsen Clouser DATE Signed: 11/2/2023

F-IN-Q-290-rev.23, 26Jun2023

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: NMS 11-03-2023 1147

1. **Courier:** ☐ FED EX ☐ UPS ☒ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No
   (If yes)Seals Intact: ☒ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B (C) D E F G H
4. **Cooler Temperature(s):** 0.4/0.4 | 1.7/1.7 | | | **(Initial/Corrected)** **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**
5. **Packing Material:** ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☒ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: (HNO3 (<2)) (H2SO4 (<2)) NaOH (>10) (NaOH/ZnAc (>9))** Any non-conformance to pH recommendations will be noted on the container count form	X		
Short Hold Time Analysis (48 hours or less)? **Analysis:** Nitrate	X					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 1445		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A X
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
Containers Intact?:	X		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent X
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE 1 **of** 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1												1	1			2	1	2	1	1	1		1				WT	✓	✓		✓
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 08, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 03, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50358538001	**MW-37A**	Water	11/03/23 11:30	11/03/23 16:30
50358538002	**MW-37I**	Water	11/03/23 12:31	11/03/23 16:30
50358538003	**MW-37B**	Water	11/03/23 10:40	11/03/23 16:30
50358538004	**DUP 8**	Water	11/03/23 08:00	11/03/23 16:30

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50358538001	**MW-37A**	EPA 9056	KBB	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	ELK	6	PASI-I
		EPA 6020	DMT	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50358538002	**MW-37I**	EPA 9056	KBB	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	ELK	6	PASI-I
		EPA 6020	DMT	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50358538003	**MW-37B**	EPA 9056	KBB	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	ELK	6	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	DMT	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50358538004	**DUP 8**	EPA 9056	KBB	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	ELK	6	PASI-I
		EPA 6020	DMT	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50358538001	**MW-37A**					
EPA 9056	Bromide	0.38	mg/L	0.050	11/11/23 03:44	
EPA 9056	Chloride	47.9	mg/L	2.5	11/11/23 04:01	
EPA 9056	Sulfate	1390	mg/L	25.0	11/11/23 04:18	
EPA 6010	Boron	13100	ug/L	100	11/15/23 13:01	
EPA 6010	Calcium	659000	ug/L	5000	11/15/23 14:32	
EPA 6010	Iron	11500	ug/L	100	11/15/23 13:01	
EPA 6010	Magnesium	26200	ug/L	1000	11/15/23 13:01	
EPA 6010	Molybdenum	436	ug/L	10.0	11/15/23 13:01	
EPA 6010	Potassium	2130	ug/L	1000	11/15/23 13:01	
EPA 6010	Silica	14400	ug/L	450	11/15/23 13:01	N2
EPA 6010	Sodium	67600	ug/L	1000	11/15/23 13:01	
EPA 6010	Boron, Dissolved	13200	ug/L	100	11/15/23 12:07	
EPA 6010	Iron, Dissolved	11800	ug/L	100	11/15/23 12:07	
EPA 6010	Magnesium, Dissolved	25300	ug/L	1000	11/15/23 12:07	
EPA 6010	Molybdenum, Dissolved	419	ug/L	10.0	11/15/23 12:07	
EPA 6010	Potassium, Dissolved	2400	ug/L	1000	11/15/23 12:07	
EPA 6020	Aluminum	31.8	ug/L	10.0	11/08/23 12:26	
EPA 6020	Barium	25.6	ug/L	1.0	11/08/23 12:26	
EPA 6020	Manganese	1880	ug/L	20.0	11/10/23 03:27	
EPA 6020	Manganese, Dissolved	1800	ug/L	20.0	11/09/23 19:18	
EPA 903.1	Radium-226	-0.279 ± 0.752 (1.62) C:NA T:87%	pCi/L		11/17/23 13:34	
EPA 904.0	Radium-228	0.654 ± 0.387 (0.715) C:91% T:80%	pCi/L		11/20/23 16:03	
Total Radium Calculation	Total Radium	0.654 ± 1.14 (2.34)	pCi/L		11/21/23 14:29	
SM 2320B	Alkalinity, Total as CaCO3	94.0	mg/L	10.0	11/06/23 23:51	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	94.0	mg/L	10.0	11/06/23 23:51	
SM 2540C	Total Dissolved Solids	2710	mg/L	20.0	11/10/23 15:48	
SM 4500-H+B	pH at 25 Degrees C	6.8	Std. Units	0.10	11/14/23 18:06	H3
HACH 8146	Iron, Ferrous	3.3	mg/L	0.50	11/10/23 12:25	H3,N2
EPA 365.1	Phosphate as P04	0.28	mg/L	0.15	11/14/23 19:12	
SM 5310C	Total Organic Carbon	1.8	mg/L	1.0	11/15/23 17:49	
SM 5310C	Dissolved Organic Carbon	3.4	mg/L	1.0	11/16/23 01:54	
50358538002	**MW-37I**					
EPA 9056	Bromide	0.23	mg/L	0.050	11/11/23 05:09	
EPA 9056	Chloride	26.5	mg/L	2.5	11/11/23 05:25	
EPA 9056	Sulfate	1200	mg/L	25.0	11/11/23 05:42	
EPA 6010	Boron	9560	ug/L	100	11/15/23 13:03	
EPA 6010	Calcium	541000	ug/L	5000	11/15/23 14:33	
EPA 6010	Iron	6010	ug/L	100	11/15/23 13:03	
EPA 6010	Magnesium	23000	ug/L	1000	11/15/23 13:03	
EPA 6010	Molybdenum	187	ug/L	10.0	11/15/23 13:03	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50358538002	**MW-37I**					
EPA 6010	Potassium	6620	ug/L	1000	11/15/23 13:03	
EPA 6010	Silica	12700	ug/L	450	11/15/23 13:03	N2
EPA 6010	Sodium	47700	ug/L	1000	11/15/23 13:03	
EPA 6010	Boron, Dissolved	9090	ug/L	100	11/15/23 12:08	
EPA 6010	Iron, Dissolved	5720	ug/L	100	11/15/23 12:08	
EPA 6010	Magnesium, Dissolved	21100	ug/L	1000	11/15/23 12:08	
EPA 6010	Molybdenum, Dissolved	177	ug/L	10.0	11/15/23 12:08	
EPA 6010	Potassium, Dissolved	6820	ug/L	1000	11/15/23 12:08	
EPA 6020	Aluminum	91.4	ug/L	10.0	11/08/23 12:29	
EPA 6020	Barium	25.7	ug/L	1.0	11/08/23 12:29	
EPA 6020	Manganese	2070	ug/L	20.0	11/10/23 03:30	
EPA 6020	Manganese, Dissolved	2050	ug/L	20.0	11/09/23 19:22	
EPA 903.1	Radium-226	0.0964 ± 0.440 (0.895) C:NA T:89%	pCi/L		11/17/23 13:34	
EPA 904.0	Radium-228	0.839 ± 0.479 (0.884) C:80% T:81%	pCi/L		11/20/23 16:03	
Total Radium Calculation	Total Radium	0.935 ± 0.919 (1.78)	pCi/L		11/21/23 14:29	
SM 2320B	Alkalinity, Total as CaCO3	128	mg/L	10.0	11/06/23 23:51	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	128	mg/L	10.0	11/06/23 23:51	
SM 2540C	Total Dissolved Solids	2060	mg/L	20.0	11/10/23 15:48	
SM 4500-H+B	pH at 25 Degrees C	6.8	Std. Units	0.10	11/14/23 18:06	H3
HACH 8146	Iron, Ferrous	1.3	mg/L	0.20	11/10/23 12:25	H3,N2
EPA 365.1	Phosphate as P04	0.23	mg/L	0.15	11/14/23 19:13	
SM 5310C	Total Organic Carbon	1.4	mg/L	1.0	11/15/23 17:59	
SM 5310C	Dissolved Organic Carbon	1.6	mg/L	1.0	11/16/23 02:05	
50358538003	**MW-37B**					
EPA 9056	Bromide	0.059	mg/L	0.050	11/11/23 05:59	
EPA 9056	Chloride	7.2	mg/L	0.25	11/11/23 05:59	
EPA 9056	Sulfate	94.4	mg/L	2.5	11/11/23 06:16	
EPA 6010	Boron	1050	ug/L	100	11/15/23 13:04	
EPA 6010	Calcium	146000	ug/L	1000	11/15/23 13:04	
EPA 6010	Iron	148	ug/L	100	11/15/23 13:04	
EPA 6010	Magnesium	31200	ug/L	1000	11/15/23 13:04	
EPA 6010	Silica	14500	ug/L	450	11/15/23 13:04	N2
EPA 6010	Sodium	6790	ug/L	1000	11/15/23 13:04	
EPA 6010	Boron, Dissolved	1020	ug/L	100	11/15/23 12:10	
EPA 6010	Magnesium, Dissolved	29600	ug/L	1000	11/15/23 12:10	
EPA 6020	Aluminum	92.2	ug/L	10.0	11/10/23 03:54	
EPA 6020	Barium	38.5	ug/L	1.0	11/08/23 13:00	
EPA 6020	Manganese	170	ug/L	1.0	11/10/23 03:54	
EPA 6020	Selenium	2.4	ug/L	1.0	11/10/23 03:54	
EPA 6020	Manganese, Dissolved	152	ug/L	1.0	11/09/23 19:26	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50358538003	**MW-37B**					
EPA 903.1	Radium-226	-0.537 ± 0.558 (1.42) C:NA T:86%	pCi/L		11/17/23 13:34	
EPA 904.0	Radium-228	0.417 ± 0.346 (0.689) C:89% T:82%	pCi/L		11/20/23 16:04	
Total Radium Calculation	Total Radium	0.417 ± 0.904 (2.11)	pCi/L		11/21/23 14:30	
SM 2320B	Alkalinity, Total as CaCO3	345	mg/L	10.0	11/06/23 23:51	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	345	mg/L	10.0	11/06/23 23:51	
SM 2540C	Total Dissolved Solids	552	mg/L	10.0	11/10/23 15:48	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	11/14/23 18:07	H3
EPA 353.2	Nitrogen, Nitrate	3.9	mg/L	0.10	11/04/23 01:55	
SM 5310C	Total Organic Carbon	1.7	mg/L	1.0	11/15/23 18:09	
SM 5310C	Dissolved Organic Carbon	1.8	mg/L	1.0	11/16/23 02:15	
50358538004	**DUP 8**					
EPA 9056	Bromide	0.38	mg/L	0.050	11/11/23 06:50	
EPA 9056	Chloride	45.9	mg/L	2.5	11/11/23 07:07	
EPA 9056	Sulfate	1550	mg/L	25.0	11/15/23 20:28	
EPA 6010	Boron	13300	ug/L	100	11/15/23 13:06	
EPA 6010	Calcium	677000	ug/L	5000	11/15/23 14:35	
EPA 6010	Iron	11600	ug/L	100	11/15/23 13:06	
EPA 6010	Magnesium	26300	ug/L	1000	11/15/23 13:06	
EPA 6010	Molybdenum	437	ug/L	10.0	11/15/23 13:06	
EPA 6010	Potassium	2130	ug/L	1000	11/15/23 13:06	
EPA 6010	Silica	14500	ug/L	450	11/15/23 13:06	N2
EPA 6010	Sodium	68500	ug/L	1000	11/15/23 13:06	
EPA 6010	Boron, Dissolved	12500	ug/L	100	11/15/23 12:14	
EPA 6010	Iron, Dissolved	11300	ug/L	100	11/15/23 12:14	
EPA 6010	Magnesium, Dissolved	24100	ug/L	1000	11/15/23 12:14	
EPA 6010	Molybdenum, Dissolved	397	ug/L	10.0	11/15/23 12:14	
EPA 6010	Potassium, Dissolved	2240	ug/L	1000	11/15/23 12:14	
EPA 6020	Aluminum	28.9	ug/L	10.0	11/14/23 02:57	
EPA 6020	Barium	24.3	ug/L	1.0	11/08/23 13:03	
EPA 6020	Manganese	1880	ug/L	20.0	11/10/23 03:58	
EPA 6020	Manganese, Dissolved	1640	ug/L	20.0	11/09/23 19:30	
EPA 903.1	Radium-226	0.193 ± 0.597 (1.16) C:NA T:86%	pCi/L		11/17/23 13:34	
EPA 904.0	Radium-228	0.767 ± 0.393 (0.663) C:83% T:83%	pCi/L		11/20/23 16:04	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50358538004	**DUP 8**					
Total Radium Calculation	Total Radium	0.960 ± 0.990 (1.82)	pCi/L		11/21/23 14:30	
SM 2320B	Alkalinity, Total as CaCO3	93.8	mg/L	10.0	11/06/23 23:51	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	93.8	mg/L	10.0	11/06/23 23:51	
SM 2540C	Total Dissolved Solids	2700	mg/L	20.0	11/10/23 15:48	
SM 4500-H+B	pH at 25 Degrees C	6.8	Std. Units	0.10	11/14/23 18:07	H3
SM 4500-S2-D	Sulfide	0.026J	mg/L	0.10	11/06/23 13:55	
HACH 8146	Iron, Ferrous	1.5	mg/L	0.50	11/10/23 12:18	H3,N2
EPA 365.1	Phosphate as P04	0.31	mg/L	0.15	11/14/23 19:14	
SM 5310C	Total Organic Carbon	1.6	mg/L	1.0	11/15/23 18:19	
SM 5310C	Dissolved Organic Carbon	2.0	mg/L	2.0	11/16/23 02:25	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

Sample: MW-37A **Lab ID: 50358538001** Collected: 11/03/23 11:30 Received: 11/03/23 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.38**	mg/L	0.050	0.0090	1		11/11/23 03:44	24959-67-9	
Chloride	**47.9**	mg/L	2.5	0.67	10		11/11/23 04:01	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/11/23 03:44	16984-48-8	
Sulfate	**1390**	mg/L	25.0	19.0	100		11/11/23 04:18	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**13100**	ug/L	100	11.4	1	11/09/23 16:11	11/15/23 13:01	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/09/23 16:11	11/15/23 13:01	7440-43-9	
Calcium	**659000**	ug/L	5000	284	5	11/09/23 16:11	11/15/23 14:32	7440-70-2	
Iron	**11500**	ug/L	100	18.1	1	11/09/23 16:11	11/15/23 13:01	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/09/23 16:11	11/15/23 13:01	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/09/23 16:11	11/15/23 13:01	7439-93-2	
Magnesium	**26200**	ug/L	1000	32.8	1	11/09/23 16:11	11/15/23 13:01	7439-95-4	
Molybdenum	**436**	ug/L	10.0	1.1	1	11/09/23 16:11	11/15/23 13:01	7439-98-7	
Potassium	**2130**	ug/L	1000	120	1	11/09/23 16:11	11/15/23 13:01	7440-09-7	
Silica	**14400**	ug/L	450		1	11/09/23 16:11	11/15/23 13:01	7631-86-9	N2
Sodium	**67600**	ug/L	1000	48.2	1	11/09/23 16:11	11/15/23 13:01	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**13200**	ug/L	100	6.2	1	11/13/23 16:22	11/15/23 12:07	7440-42-8	
Iron, Dissolved	**11800**	ug/L	100	30.0	1	11/13/23 16:22	11/15/23 12:07	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/13/23 16:22	11/15/23 12:07	7439-93-2	
Magnesium, Dissolved	**25300**	ug/L	1000	33.6	1	11/13/23 16:22	11/15/23 12:07	7439-95-4	
Molybdenum, Dissolved	**419**	ug/L	10.0	0.78	1	11/13/23 16:22	11/15/23 12:07	7439-98-7	
Potassium, Dissolved	**2400**	ug/L	1000	97.8	1	11/13/23 16:22	11/15/23 12:07	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**31.8**	ug/L	10.0	2.0	1	11/07/23 07:20	11/08/23 12:26	7429-90-5	
Arsenic	ND	ug/L	1.0	0.12	1	11/07/23 07:20	11/08/23 12:26	7440-38-2	
Barium	**25.6**	ug/L	1.0	0.065	1	11/07/23 07:20	11/08/23 12:26	7440-39-3	
Cobalt	ND	ug/L	1.0	0.071	1	11/07/23 07:20	11/08/23 12:26	7440-48-4	
Manganese	**1880**	ug/L	20.0	3.2	20	11/07/23 07:20	11/10/23 03:27	7439-96-5	
Selenium	ND	ug/L	1.0	0.19	1	11/07/23 07:20	11/08/23 12:26	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/08/23 07:26	11/08/23 20:59	7429-90-5	
Manganese, Dissolved	**1800**	ug/L	20.0	3.6	20	11/08/23 07:26	11/09/23 19:18	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

Sample: MW-37A **Lab ID: 50358538001** Collected: 11/03/23 11:30 Received: 11/03/23 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**94.0**	mg/L	10.0	10.0	1		11/06/23 23:51		
Alkalinity,Bicarbonate (CaCO3)	**94.0**	mg/L	10.0	10.0	1		11/06/23 23:51		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/06/23 23:51		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2710**	mg/L	20.0	20.0	1		11/10/23 15:48		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.8**	Std. Units	0.10	0.10	1		11/14/23 18:06		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/06/23 13:55	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**3.3**	mg/L	0.50	0.088	2.5		11/10/23 12:25	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/04/23 01:58	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/04/23 01:58	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.28**	mg/L	0.15	0.15	1	11/10/23 13:00	11/14/23 19:12		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.8**	mg/L	1.0	0.24	1		11/15/23 17:49	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.4**	mg/L	1.0	0.24	1		11/16/23 01:54		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

Sample: MW-37I **Lab ID: 50358538002** Collected: 11/03/23 12:31 Received: 11/03/23 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.23**	mg/L	0.050	0.0090	1		11/11/23 05:09	24959-67-9	
Chloride	**26.5**	mg/L	2.5	0.67	10		11/11/23 05:25	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/11/23 05:09	16984-48-8	
Sulfate	**1200**	mg/L	25.0	19.0	100		11/11/23 05:42	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**9560**	ug/L	100	11.4	1	11/09/23 16:11	11/15/23 13:03	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/09/23 16:11	11/15/23 13:03	7440-43-9	
Calcium	**541000**	ug/L	5000	284	5	11/09/23 16:11	11/15/23 14:33	7440-70-2	
Iron	**6010**	ug/L	100	18.1	1	11/09/23 16:11	11/15/23 13:03	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/09/23 16:11	11/15/23 13:03	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/09/23 16:11	11/15/23 13:03	7439-93-2	
Magnesium	**23000**	ug/L	1000	32.8	1	11/09/23 16:11	11/15/23 13:03	7439-95-4	
Molybdenum	**187**	ug/L	10.0	1.1	1	11/09/23 16:11	11/15/23 13:03	7439-98-7	
Potassium	**6620**	ug/L	1000	120	1	11/09/23 16:11	11/15/23 13:03	7440-09-7	
Silica	**12700**	ug/L	450		1	11/09/23 16:11	11/15/23 13:03	7631-86-9	N2
Sodium	**47700**	ug/L	1000	48.2	1	11/09/23 16:11	11/15/23 13:03	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**9090**	ug/L	100	6.2	1	11/13/23 16:22	11/15/23 12:08	7440-42-8	
Iron, Dissolved	**5720**	ug/L	100	30.0	1	11/13/23 16:22	11/15/23 12:08	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/13/23 16:22	11/15/23 12:08	7439-93-2	
Magnesium, Dissolved	**21100**	ug/L	1000	33.6	1	11/13/23 16:22	11/15/23 12:08	7439-95-4	
Molybdenum, Dissolved	**177**	ug/L	10.0	0.78	1	11/13/23 16:22	11/15/23 12:08	7439-98-7	
Potassium, Dissolved	**6820**	ug/L	1000	97.8	1	11/13/23 16:22	11/15/23 12:08	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**91.4**	ug/L	10.0	2.0	1	11/07/23 07:20	11/08/23 12:29	7429-90-5	
Arsenic	ND	ug/L	1.0	0.12	1	11/07/23 07:20	11/08/23 12:29	7440-38-2	
Barium	**25.7**	ug/L	1.0	0.065	1	11/07/23 07:20	11/08/23 12:29	7440-39-3	
Cobalt	ND	ug/L	1.0	0.071	1	11/07/23 07:20	11/08/23 12:29	7440-48-4	
Manganese	**2070**	ug/L	20.0	3.2	20	11/07/23 07:20	11/10/23 03:30	7439-96-5	
Selenium	ND	ug/L	1.0	0.19	1	11/07/23 07:20	11/08/23 12:29	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/08/23 07:26	11/08/23 21:03	7429-90-5	
Manganese, Dissolved	**2050**	ug/L	20.0	3.6	20	11/08/23 07:26	11/09/23 19:22	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

Sample: MW-37I **Lab ID: 50358538002** Collected: 11/03/23 12:31 Received: 11/03/23 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**128**	mg/L	10.0	10.0	1		11/06/23 23:51		
Alkalinity,Bicarbonate (CaCO3)	**128**	mg/L	10.0	10.0	1		11/06/23 23:51		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/06/23 23:51		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2060**	mg/L	20.0	20.0	1		11/10/23 15:48		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.8**	Std. Units	0.10	0.10	1		11/14/23 18:06		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/06/23 13:55	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**1.3**	mg/L	0.20	0.035	1		11/10/23 12:25	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/04/23 02:08	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/04/23 02:08	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.23**	mg/L	0.15	0.15	1	11/10/23 13:00	11/14/23 19:13		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.4**	mg/L	1.0	0.24	1		11/15/23 17:59	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.6**	mg/L	1.0	0.24	1		11/16/23 02:05		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

Sample: MW-37B **Lab ID: 50358538003** Collected: 11/03/23 10:40 Received: 11/03/23 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.059**	mg/L	0.050	0.0090	1		11/11/23 05:59	24959-67-9	
Chloride	**7.2**	mg/L	0.25	0.067	1		11/11/23 05:59	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/11/23 05:59	16984-48-8	
Sulfate	**94.4**	mg/L	2.5	1.9	10		11/11/23 06:16	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**1050**	ug/L	100	11.4	1	11/09/23 16:11	11/15/23 13:04	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/09/23 16:11	11/15/23 13:04	7440-43-9	
Calcium	**146000**	ug/L	1000	56.7	1	11/09/23 16:11	11/15/23 13:04	7440-70-2	
Iron	**148**	ug/L	100	18.1	1	11/09/23 16:11	11/15/23 13:04	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/09/23 16:11	11/15/23 13:04	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/09/23 16:11	11/15/23 13:04	7439-93-2	
Magnesium	**31200**	ug/L	1000	32.8	1	11/09/23 16:11	11/15/23 13:04	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	11/09/23 16:11	11/15/23 13:04	7439-98-7	
Potassium	ND	ug/L	1000	120	1	11/09/23 16:11	11/15/23 13:04	7440-09-7	
Silica	**14500**	ug/L	450		1	11/09/23 16:11	11/15/23 13:04	7631-86-9	N2
Sodium	**6790**	ug/L	1000	48.2	1	11/09/23 16:11	11/15/23 13:04	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1020**	ug/L	100	6.2	1	11/13/23 16:22	11/15/23 12:10	7440-42-8	
Iron, Dissolved	ND	ug/L	100	30.0	1	11/13/23 16:22	11/15/23 12:10	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/13/23 16:22	11/15/23 12:10	7439-93-2	
Magnesium, Dissolved	**29600**	ug/L	1000	33.6	1	11/13/23 16:22	11/15/23 12:10	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	11/13/23 16:22	11/15/23 12:10	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	97.8	1	11/13/23 16:22	11/15/23 12:10	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**92.2**	ug/L	10.0	2.0	1	11/07/23 07:20	11/10/23 03:54	7429-90-5	
Arsenic	ND	ug/L	1.0	0.12	1	11/07/23 07:20	11/10/23 03:54	7440-38-2	
Barium	**38.5**	ug/L	1.0	0.065	1	11/07/23 07:20	11/08/23 13:00	7440-39-3	
Cobalt	ND	ug/L	1.0	0.071	1	11/07/23 07:20	11/10/23 03:54	7440-48-4	
Manganese	**170**	ug/L	1.0	0.16	1	11/07/23 07:20	11/10/23 03:54	7439-96-5	
Selenium	**2.4**	ug/L	1.0	0.19	1	11/07/23 07:20	11/10/23 03:54	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/08/23 07:26	11/08/23 21:07	7429-90-5	
Manganese, Dissolved	**152**	ug/L	1.0	0.18	1	11/08/23 07:26	11/09/23 19:26	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

Sample: MW-37B **Lab ID: 50358538003** Collected: 11/03/23 10:40 Received: 11/03/23 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**345**	mg/L	10.0	10.0	1		11/06/23 23:51		
Alkalinity,Bicarbonate (CaCO3)	**345**	mg/L	10.0	10.0	1		11/06/23 23:51		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/06/23 23:51		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**552**	mg/L	10.0	10.0	1		11/10/23 15:48		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		11/14/23 18:07		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/06/23 13:55	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/10/23 12:24	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**3.9**	mg/L	0.10	0.011	1		11/04/23 01:55	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/04/23 01:55	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/10/23 13:00	11/14/23 19:14		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.7**	mg/L	1.0	0.24	1		11/15/23 18:09	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.8**	mg/L	1.0	0.24	1		11/16/23 02:15		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

Sample: DUP 8 **Lab ID: 50358538004** Collected: 11/03/23 08:00 Received: 11/03/23 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.38**	mg/L	0.050	0.0090	1		11/11/23 06:50	24959-67-9	
Chloride	**45.9**	mg/L	2.5	0.67	10		11/11/23 07:07	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/11/23 06:50	16984-48-8	
Sulfate	**1550**	mg/L	25.0	19.0	100		11/15/23 20:28	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**13300**	ug/L	100	11.4	1	11/09/23 16:11	11/15/23 13:06	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/09/23 16:11	11/15/23 13:06	7440-43-9	
Calcium	**677000**	ug/L	5000	284	5	11/09/23 16:11	11/15/23 14:35	7440-70-2	
Iron	**11600**	ug/L	100	18.1	1	11/09/23 16:11	11/15/23 13:06	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/09/23 16:11	11/15/23 13:06	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/09/23 16:11	11/15/23 13:06	7439-93-2	
Magnesium	**26300**	ug/L	1000	32.8	1	11/09/23 16:11	11/15/23 13:06	7439-95-4	
Molybdenum	**437**	ug/L	10.0	1.1	1	11/09/23 16:11	11/15/23 13:06	7439-98-7	
Potassium	**2130**	ug/L	1000	120	1	11/09/23 16:11	11/15/23 13:06	7440-09-7	
Silica	**14500**	ug/L	450		1	11/09/23 16:11	11/15/23 13:06	7631-86-9	N2
Sodium	**68500**	ug/L	1000	48.2	1	11/09/23 16:11	11/15/23 13:06	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**12500**	ug/L	100	6.2	1	11/13/23 16:22	11/15/23 12:14	7440-42-8	
Iron, Dissolved	**11300**	ug/L	100	30.0	1	11/13/23 16:22	11/15/23 12:14	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/13/23 16:22	11/15/23 12:14	7439-93-2	
Magnesium, Dissolved	**24100**	ug/L	1000	33.6	1	11/13/23 16:22	11/15/23 12:14	7439-95-4	
Molybdenum, Dissolved	**397**	ug/L	10.0	0.78	1	11/13/23 16:22	11/15/23 12:14	7439-98-7	
Potassium, Dissolved	**2240**	ug/L	1000	97.8	1	11/13/23 16:22	11/15/23 12:14	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**28.9**	ug/L	10.0	2.0	1	11/07/23 07:20	11/14/23 02:57	7429-90-5	
Arsenic	ND	ug/L	1.0	0.12	1	11/07/23 07:20	11/14/23 02:57	7440-38-2	
Barium	**24.3**	ug/L	1.0	0.065	1	11/07/23 07:20	11/08/23 13:03	7440-39-3	
Cobalt	ND	ug/L	1.0	0.071	1	11/07/23 07:20	11/14/23 02:57	7440-48-4	
Manganese	**1880**	ug/L	20.0	3.2	20	11/07/23 07:20	11/10/23 03:58	7439-96-5	
Selenium	ND	ug/L	1.0	0.19	1	11/07/23 07:20	11/14/23 02:57	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/08/23 07:26	11/08/23 21:11	7429-90-5	
Manganese, Dissolved	**1640**	ug/L	20.0	3.6	20	11/08/23 07:26	11/09/23 19:30	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

Sample: DUP 8 **Lab ID: 50358538004** Collected: 11/03/23 08:00 Received: 11/03/23 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**93.8**	mg/L	10.0	10.0	1		11/06/23 23:51		
Alkalinity,Bicarbonate (CaCO3)	**93.8**	mg/L	10.0	10.0	1		11/06/23 23:51		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/06/23 23:51		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2700**	mg/L	20.0	20.0	1		11/10/23 15:48		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.8**	Std. Units	0.10	0.10	1		11/14/23 18:07		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	**0.026J**	mg/L	0.10	0.025	1		11/06/23 13:55	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**1.5**	mg/L	0.50	0.088	2.5		11/10/23 12:18	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/04/23 01:25	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/04/23 01:25	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.31**	mg/L	0.15	0.15	1	11/10/23 13:00	11/14/23 19:14		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.6**	mg/L	1.0	0.24	1		11/15/23 18:19	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.0**	mg/L	2.0	0.47	2		11/16/23 02:25		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

QC Batch: 761948
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358538001, 50358538002, 50358538003, 50358538004

METHOD BLANK: 3492379 Matrix: Water
Associated Lab Samples: 50358538001, 50358538002, 50358538003, 50358538004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	11/10/23 10:35	
Chloride	mg/L	ND	0.25	0.067	11/10/23 10:35	
Fluoride	mg/L	ND	0.10	0.017	11/10/23 10:35	
Sulfate	mg/L	ND	0.25	0.19	11/10/23 10:35	

LABORATORY CONTROL SAMPLE: 3492380

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.93	93	80-120	
Chloride	mg/L	2.5	2.3	92	80-120	
Fluoride	mg/L	1	0.93	93	80-120	
Sulfate	mg/L	5	4.7	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3492381 3492382

Parameter	Units	50358482004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	0.040J	1	1	0.93	0.92	89	88	80-120	2	15	
Chloride	mg/L	4.1	2.5	2.5	5.6	5.6	63	62	80-120	1	15	M0
Fluoride	mg/L	2.8	1	1	3.6	3.6	79	76	80-120	1	15	M0
Sulfate	mg/L	24.9	5	5	26.4	26.5	30	32	80-120	0	15	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

QC Batch: 761571
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358538001, 50358538002, 50358538003, 50358538004

METHOD BLANK: 3490624 Matrix: Water
Associated Lab Samples: 50358538001, 50358538002, 50358538003, 50358538004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	11.4	11/15/23 12:45	
Cadmium	ug/L	ND	2.0	0.74	11/15/23 12:45	
Calcium	ug/L	ND	1000	56.7	11/15/23 12:45	
Iron	ug/L	ND	100	18.1	11/15/23 12:45	
Lead	ug/L	ND	10.0	4.0	11/15/23 12:45	
Lithium	ug/L	ND	20.0	5.1	11/15/23 12:45	
Magnesium	ug/L	ND	1000	32.8	11/15/23 12:45	
Molybdenum	ug/L	ND	10.0	1.1	11/15/23 12:45	
Potassium	ug/L	ND	1000	120	11/15/23 12:45	
Silica	ug/L	ND	450		11/15/23 12:45	N2
Sodium	ug/L	ND	1000	48.2	11/15/23 12:45	

LABORATORY CONTROL SAMPLE: 3490625

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	1030	103	80-120	
Cadmium	ug/L	1000	1010	101	80-120	
Calcium	ug/L	10000	10300	103	80-120	
Iron	ug/L	10000	10200	102	80-120	
Lead	ug/L	1000	975	97	80-120	
Lithium	ug/L	1000	1010	101	80-120	
Magnesium	ug/L	10000	10700	107	80-120	
Molybdenum	ug/L	1000	1090	109	80-120	
Potassium	ug/L	10000	9840	98	80-120	
Silica	ug/L	10700	11400	106	80-120	N2
Sodium	ug/L	10000	9850	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3490627 3490628

Parameter	Units	50358478001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	<0.10 mg/L	1000	1000	929	997	92	99	75-125	7	20	
Cadmium	ug/L	<0.0020 mg/L	1000	1000	893	964	89	96	75-125	8	20	
Calcium	ug/L	40.7 mg/L	10000	10000	44000	46500	32	58	75-125	6	20	P6
Iron	ug/L	1.3 mg/L	10000	10000	10000	10700	87	94	75-125	7	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3490627 3490628

Parameter	Units	50358478001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	ug/L	<0.010 mg/L	1000	1000	858	923	86	92	75-125	7	20	
Lithium	ug/L	<0.020 mg/L	1000	1000	904	964	90	96	75-125	6	20	
Magnesium	ug/L	12.3 mg/L	10000	10000	19800	21000	76	87	75-125	6	20	
Molybdenum	ug/L	<0.010 mg/L	1000	1000	961	1040	96	104	75-125	8	20	
Potassium	ug/L	2.5 mg/L	10000	10000	11000	11700	85	92	75-125	6	20	
Silica	ug/L	5.1 mg/L	10700	10700	14500	15500	88	97	75-125	6	20	N2
Sodium	ug/L	<1.0 mg/L	10000	10000	9210	9820	88	94	75-125	6	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

QC Batch: 762440
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358538001, 50358538002, 50358538003, 50358538004

METHOD BLANK: 3495049 Matrix: Water
Associated Lab Samples: 50358538001, 50358538002, 50358538003, 50358538004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	11/15/23 12:06	
Iron, Dissolved	ug/L	ND	100	30.0	11/15/23 12:06	
Lithium, Dissolved	ug/L	ND	20.0	6.8	11/15/23 12:06	
Magnesium, Dissolved	ug/L	ND	1000	33.6	11/15/23 12:06	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	11/15/23 12:06	
Potassium, Dissolved	ug/L	ND	1000	97.8	11/15/23 12:06	

LABORATORY CONTROL SAMPLE: 3495050

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	995	99	80-120	
Iron, Dissolved	ug/L	10000	10300	103	80-120	
Lithium, Dissolved	ug/L	1000	1070	107	80-120	
Magnesium, Dissolved	ug/L	10000	9980	100	80-120	
Molybdenum, Dissolved	ug/L	1000	1040	104	80-120	
Potassium, Dissolved	ug/L	10000	10500	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495051 3495052

Parameter	Units	50359283003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	208	1000	1000	1220	1200	102	99	75-125	2	20	
Iron, Dissolved	ug/L	1680	10000	10000	11700	11500	101	98	75-125	2	20	
Lithium, Dissolved	ug/L	17.1J	1000	1000	1060	1030	104	102	75-125	3	20	
Magnesium, Dissolved	ug/L	43900	10000	10000	54600	53700	107	98	75-125	2	20	
Molybdenum, Dissolved	ug/L	12.5	1000	1000	1030	1010	102	99	75-125	2	20	
Potassium, Dissolved	ug/L	3570	10000	10000	13800	13400	102	98	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

QC Batch: 760988
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358538001, 50358538002, 50358538003, 50358538004

METHOD BLANK: 3488042 Matrix: Water
Associated Lab Samples: 50358538001, 50358538002, 50358538003, 50358538004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	2.0	11/08/23 12:19	
Arsenic	ug/L	ND	1.0	0.12	11/08/23 12:19	
Barium	ug/L	ND	1.0	0.065	11/08/23 12:19	
Cobalt	ug/L	ND	1.0	0.071	11/08/23 12:19	
Manganese	ug/L	ND	1.0	0.16	11/08/23 12:19	
Selenium	ug/L	ND	1.0	0.19	11/08/23 12:19	

LABORATORY CONTROL SAMPLE: 3488043

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	381	95	80-120	
Arsenic	ug/L	40	37.8	95	80-120	
Barium	ug/L	40	38.9	97	80-120	
Cobalt	ug/L	40	40.7	102	80-120	
Manganese	ug/L	40	40.7	102	80-120	
Selenium	ug/L	40	39.0	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3488180 3488181

Parameter	Units	50358538002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	91.4	400	400	445	453	88	90	75-125	2	20	
Arsenic	ug/L	ND	40	40	37.1	36.7	92	91	75-125	1	20	
Barium	ug/L	25.7	40	40	63.4	63.2	94	94	75-125	0	20	
Cobalt	ug/L	ND	40	40	37.6	38.9	92	95	75-125	3	20	
Manganese	ug/L	2070	40	40	2150	2130	200	142	75-125	1	20	P6
Selenium	ug/L	ND	40	40	41.4	41.3	102	102	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

QC Batch: 761393
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358538001, 50358538002, 50358538003, 50358538004

METHOD BLANK: 3489622 Matrix: Water
Associated Lab Samples: 50358538001, 50358538002, 50358538003, 50358538004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.8	11/08/23 20:43	
Manganese, Dissolved	ug/L	ND	1.0	0.18	11/08/23 20:43	

LABORATORY CONTROL SAMPLE: 3489623

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	404	101	80-120	
Manganese, Dissolved	ug/L	40	41.1	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3489624 3489625

Parameter	Units	50358539002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	402	395	100	98	75-125	2	20	
Manganese, Dissolved	ug/L	1360	40	40	1410	1380	127	51	75-125	2	20	P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

QC Batch: 761174
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358538001, 50358538002, 50358538003, 50358538004

METHOD BLANK: 3488938 Matrix: Water
Associated Lab Samples: 50358538001, 50358538002, 50358538003, 50358538004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/06/23 23:51	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/06/23 23:51	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/06/23 23:51	

LABORATORY CONTROL SAMPLE: 3488939

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.1	102	90-110	

SAMPLE DUPLICATE: 3488940

Parameter	Units	50358416003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	231	234	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	217	220	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	13.2	14.0	6	20	

SAMPLE DUPLICATE: 3488941

Parameter	Units	50358484003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	264	266	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	264	266	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

QC Batch: 762127
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358538001, 50358538002, 50358538003, 50358538004

METHOD BLANK: 3493486 Matrix: Water
Associated Lab Samples: 50358538001, 50358538002, 50358538003, 50358538004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/10/23 15:44	

LABORATORY CONTROL SAMPLE: 3493487

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	293	98	80-120	

SAMPLE DUPLICATE: 3493488

Parameter	Units	50358480001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		10	PL

SAMPLE DUPLICATE: 3493489

Parameter	Units	50358482004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	321	315	2	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

QC Batch: 762945
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358538001, 50358538002, 50358538003, 50358538004

SAMPLE DUPLICATE: 3496910

Parameter	Units	50358484008 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.4	7.5	1	2	H3

SAMPLE DUPLICATE: 3496911

Parameter	Units	50358877003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.2	7.3	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

QC Batch: 761010
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358538001, 50358538002, 50358538003, 50358538004

METHOD BLANK: 3488126 Matrix: Water
Associated Lab Samples: 50358538001, 50358538002, 50358538003, 50358538004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/06/23 13:55	

LABORATORY CONTROL SAMPLE: 3488127

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.54	109	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3488128 3488129

Parameter	Units	50358484002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.54	0.55	105	105	90-110	0	20	

MATRIX SPIKE SAMPLE: 3488130

Parameter	Units	50358538003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.51	102	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

QC Batch: 762073
QC Batch Method: HACH 8146
Analysis Method: HACH 8146
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358538001, 50358538002, 50358538003, 50358538004

METHOD BLANK: 3493243 Matrix: Water
Associated Lab Samples: 50358538001, 50358538002, 50358538003, 50358538004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/10/23 12:17	H3,N2

LABORATORY CONTROL SAMPLE: 3493244

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	104	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3493245 3493246

Parameter	Units	50358888001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.0	1.0	101	101	90-110	0	20	H3,N2

MATRIX SPIKE SAMPLE: 3493247

Parameter	Units	50358714003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.0	102	90-110	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

QC Batch: 760855
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358538004

METHOD BLANK: 3487293 Matrix: Water
Associated Lab Samples: 50358538004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/04/23 00:44	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/04/23 00:44	

LABORATORY CONTROL SAMPLE: 3487294

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	105	90-110	
Nitrogen, Nitrite	mg/L	1	1.1	106	90-110	

MATRIX SPIKE SAMPLE: 3487295

Parameter	Units	50358418003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.1	107	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.1	106	90-110	

MATRIX SPIKE SAMPLE: 3487296

Parameter	Units	50358423019 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.1	107	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.1	106	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

QC Batch: 760857
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358538001, 50358538002, 50358538003

METHOD BLANK: 3487300 Matrix: Water
Associated Lab Samples: 50358538001, 50358538002, 50358538003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/04/23 01:34	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/04/23 01:34	

LABORATORY CONTROL SAMPLE: 3487301

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.1	106	90-110	
Nitrogen, Nitrite	mg/L	1	1.1	106	90-110	

MATRIX SPIKE SAMPLE: 3487302

Parameter	Units	50358539001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	0.82	1	1.9	107	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.1	106	90-110	

MATRIX SPIKE SAMPLE: 3487303

Parameter	Units	50358538001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	0.63	63	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	99	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

QC Batch: 762076
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358538001, 50358538002, 50358538003, 50358538004

METHOD BLANK: 3493254 Matrix: Water
Associated Lab Samples: 50358538001, 50358538002, 50358538003, 50358538004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	11/14/23 19:10	

LABORATORY CONTROL SAMPLE: 3493255

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3493429 3493430

Parameter	Units	50358539001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.6	1.6				2		

MATRIX SPIKE SAMPLE: 3493431

Parameter	Units	50358577003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	0.52		2.0			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

QC Batch: 763080 | Analysis Method: SM 5310C
QC Batch Method: SM 5310C | Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358538001, 50358538002, 50358538003, 50358538004

METHOD BLANK: 3497429 Matrix: Water
Associated Lab Samples: 50358538001, 50358538002, 50358538003, 50358538004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	11/15/23 17:02	

LABORATORY CONTROL SAMPLE: 3497430

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3497431 3497432

Parameter	Units	50358888001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	3.6	10	10	12.8	12.9	92	93	80-120	1	20	

MATRIX SPIKE SAMPLE: 3497433

Parameter	Units	50358828001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	ND	10	12.3	97	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

QC Batch: 763087
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358538001, 50358538002, 50358538003, 50358538004

METHOD BLANK: 3497510 Matrix: Water
Associated Lab Samples: 50358538001, 50358538002, 50358538003, 50358538004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	11/15/23 22:16	

LABORATORY CONTROL SAMPLE: 3497511

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3497512 3497513

Parameter	Units	50358466002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.0	10	10	11.4	11.4	94	94	80-120	0	20	

MATRIX SPIKE SAMPLE: 3497514

Parameter	Units	50358466003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	1.8	10	11.1	94	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

Sample: MW-37A **Lab ID: 50358538001** Collected: 11/03/23 11:30 Received: 11/03/23 16:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.279 ± 0.752 (1.62) C:NA T:87%**	pCi/L	11/17/23 13:34	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.654 ± 0.387 (0.715) C:91% T:80%**	pCi/L	11/20/23 16:03	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.654 ± 1.14 (2.34)**	pCi/L	11/21/23 14:29	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

Sample: MW-37I **Lab ID: 50358538002** Collected: 11/03/23 12:31 Received: 11/03/23 16:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0964 ± 0.440 (0.895) C:NA T:89%**	pCi/L	11/17/23 13:34	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.839 ± 0.479 (0.884) C:80% T:81%**	pCi/L	11/20/23 16:03	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.935 ± 0.919 (1.78)**	pCi/L	11/21/23 14:29	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

Sample: MW-37B **Lab ID: 50358538003** Collected: 11/03/23 10:40 Received: 11/03/23 16:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.537 ± 0.558 (1.42) C:NA T:86%**	pCi/L	11/17/23 13:34	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.417 ± 0.346 (0.689) C:89% T:82%**	pCi/L	11/20/23 16:04	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.417 ± 0.904 (2.11)**	pCi/L	11/21/23 14:30	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

Sample: DUP 8 **Lab ID: 50358538004** Collected: 11/03/23 08:00 Received: 11/03/23 16:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.193 ± 0.597 (1.16) C:NA T:86%**	pCi/L	11/17/23 13:34	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.767 ± 0.393 (0.663) C:83% T:83%**	pCi/L	11/20/23 16:04	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.960 ± 0.990 (1.82)**	pCi/L	11/21/23 14:30	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

QC Batch: 628297
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50358538001, 50358538002, 50358538003, 50358538004

METHOD BLANK: 3062807 Matrix: Water
Associated Lab Samples: 50358538001, 50358538002, 50358538003, 50358538004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.663 ± 0.527 (0.685) C:NA T:91%	pCi/L	11/17/23 13:06	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

QC Batch: 628298
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50358538001, 50358538002, 50358538003, 50358538004

METHOD BLANK: 3062808 Matrix: Water
Associated Lab Samples: 50358538001, 50358538002, 50358538003, 50358538004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.526 ± 0.374 (0.730) C:81% T:87%	pCi/L	11/20/23 12:31	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
PL	The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50358538001	**MW-37A**	EPA 9056	761948		
50358538002	**MW-37I**	EPA 9056	761948		
50358538003	**MW-37B**	EPA 9056	761948		
50358538004	**DUP 8**	EPA 9056	761948		
50358538001	**MW-37A**	EPA 3010	761571	EPA 6010	763098
50358538002	**MW-37I**	EPA 3010	761571	EPA 6010	763098
50358538003	**MW-37B**	EPA 3010	761571	EPA 6010	763098
50358538004	**DUP 8**	EPA 3010	761571	EPA 6010	763098
50358538001	**MW-37A**	EPA 3010	762440	EPA 6010	763063
50358538002	**MW-37I**	EPA 3010	762440	EPA 6010	763063
50358538003	**MW-37B**	EPA 3010	762440	EPA 6010	763063
50358538004	**DUP 8**	EPA 3010	762440	EPA 6010	763063
50358538001	**MW-37A**	EPA 200.2	760988	EPA 6020	761424
50358538002	**MW-37I**	EPA 200.2	760988	EPA 6020	761424
50358538003	**MW-37B**	EPA 200.2	760988	EPA 6020	761424
50358538004	**DUP 8**	EPA 200.2	760988	EPA 6020	761424
50358538001	**MW-37A**	EPA 200.2	761393	EPA 6020	761595
50358538002	**MW-37I**	EPA 200.2	761393	EPA 6020	761595
50358538003	**MW-37B**	EPA 200.2	761393	EPA 6020	761595
50358538004	**DUP 8**	EPA 200.2	761393	EPA 6020	761595
50358538001	**MW-37A**	EPA 903.1	628297		
50358538002	**MW-37I**	EPA 903.1	628297		
50358538003	**MW-37B**	EPA 903.1	628297		
50358538004	**DUP 8**	EPA 903.1	628297		
50358538001	**MW-37A**	EPA 904.0	628298		
50358538002	**MW-37I**	EPA 904.0	628298		
50358538003	**MW-37B**	EPA 904.0	628298		
50358538004	**DUP 8**	EPA 904.0	628298		
50358538001	**MW-37A**	Total Radium Calculation	631474		
50358538002	**MW-37I**	Total Radium Calculation	631474		
50358538003	**MW-37B**	Total Radium Calculation	631474		
50358538004	**DUP 8**	Total Radium Calculation	631474		
50358538001	**MW-37A**	SM 2320B	761174		
50358538002	**MW-37I**	SM 2320B	761174		
50358538003	**MW-37B**	SM 2320B	761174		
50358538004	**DUP 8**	SM 2320B	761174		
50358538001	**MW-37A**	SM 2540C	762127		
50358538002	**MW-37I**	SM 2540C	762127		
50358538003	**MW-37B**	SM 2540C	762127		
50358538004	**DUP 8**	SM 2540C	762127		
50358538001	**MW-37A**	SM 4500-H+B	762945		
50358538002	**MW-37I**	SM 4500-H+B	762945		
50358538003	**MW-37B**	SM 4500-H+B	762945		
50358538004	**DUP 8**	SM 4500-H+B	762945		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358538

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50358538001	**MW-37A**	SM 4500-S2-D	761010		
50358538002	**MW-37I**	SM 4500-S2-D	761010		
50358538003	**MW-37B**	SM 4500-S2-D	761010		
50358538004	**DUP 8**	SM 4500-S2-D	761010		
50358538001	**MW-37A**	HACH 8146	762073		
50358538002	**MW-37I**	HACH 8146	762073		
50358538003	**MW-37B**	HACH 8146	762073		
50358538004	**DUP 8**	HACH 8146	762073		
50358538001	**MW-37A**	EPA 353.2	760857		
50358538002	**MW-37I**	EPA 353.2	760857		
50358538003	**MW-37B**	EPA 353.2	760857		
50358538004	**DUP 8**	EPA 353.2	760855		
50358538001	**MW-37A**	EPA 365.1	762076	EPA 365.1	762970
50358538002	**MW-37I**	EPA 365.1	762076	EPA 365.1	762970
50358538003	**MW-37B**	EPA 365.1	762076	EPA 365.1	762970
50358538004	**DUP 8**	EPA 365.1	762076	EPA 365.1	762970
50358538001	**MW-37A**	SM 5310C	763080		
50358538002	**MW-37I**	SM 5310C	763080		
50358538003	**MW-37B**	SM 5310C	763080		
50358538004	**DUP 8**	SM 5310C	763080		
50358538001	**MW-37A**	SM 5310C	763087		
50358538002	**MW-37I**	SM 5310C	763087		
50358538003	**MW-37B**	SM 5310C	763087		
50358538004	**DUP 8**	SM 5310C	763087		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO# : 50358538

50358538

Pace Analytical
WWW.PACELABS.COM

HAIN-OF-CUSTODY / Analytical Request Document

e Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A	Section B	Section C
Required Client Information:	**Required Project Information:**	**Invoice Information:**
Company: Atlas Indianapolis	Report To: Mark Breting	Attention: Accounts Payable - Paula Sedam
Address: 7988 Centerpoint Drive Suite 100	Copy To:	Company Name: Atlas Indianapolis
Indianapolis, IN 46256		Address:
Email: mark.breting@oneatlas.com	Purchase Order #:	Pace Quote:
Phone: (317)579-4082 Fax:	Project Name: Petersburg P4R4 Nov 2023	Pace Project Manager: Will Statz
Requested Due Date:	Project #:	Pace Profile #: 10498/53

Regulatory Agency	State / Location
	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO2, NO3 Wet	(Br, Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered** (Y)	Alkalinity*, Ferrous iron, pH	TOC by 5310C	DOC by 5310C (Y)	Sulfide	Phosphate	Rad-226/228 + Sum		Residual Chlorine (Y/N)	
1	MW 37A	WT	G			11-3	11:30	4	11	✓	✓	✓		✓					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
2	MW 37I	WT	G			11-3	12:31	4	11	✓	✓	✓		✓					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
3	MW37B	WT	G			11-3	10:40	4	11	✓	✓	✓		✓					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
4	Dup 8	WT	G			11-3		4	11	✓	✓	✓		✓					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
* Metals: 6010 (B, Cd, Fe, Pb, Mo, Ca, Mg, Na, K, Li, sila) (11)	Hayley Tollis	11-3-23	16:30		11/3/23	16:30	0.7	Y	N	Y
6020 (Al, Mn, Co, As, Se, Ba) (6)							0.7			
** Dissolved FF 6010 (B, Fe, Mo, Mg, K, Li) (6) FF 6020 (Al, Mn) (2)										
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE				
PRINT Name of SAMPLER:	Hayley Tollis + Mykah Beckham		TEMP in C	Received on Ice (Y/N)
SIGNATURE of SAMPLER:		DATE Signed: 11-3-23	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 11/3/23 17:58 JG

1. **Courier:** ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☐ Yes ☑ No
   (If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B (C) D E F G H
4. **Cooler Temperature(s):** 0.7/0.7 | 0.7/0.7 | | |
   (Initial/Corrected) **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**

5. **Packing Material:** ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		—	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** ~~HNO3 (<2)~~ H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	—		
Short Hold Time Analysis (48 hours or less)? **Analysis:** NO2, NO3	—					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			—
Rush TAT Requested (4 days or less):		—	Residual Chlorine Check (Total/Amenable/Free Cyanide)			—
Custody Signatures Present?	—		Headspace Wisconsin Sulfide?			—
Containers Intact?:	—		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent —
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	—		Trip Blank Present?		—	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			—

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1												1	1			2	1	2	1	2	1		1				WT	✓	✓		✓
2												↓	↓			↓	↓	↓	↓	↓	↓		↓				↓	↓	↓		↓
3												↓	↓			↓	↓	↓	↓	↓	↓		↓				↓	↓	↓		↓
4												↓	↓			↓	↓	↓	↓	↓	↓		↓				↓	↓	↓		↓
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 07, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 03, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50358539001	**MW-29B**	Water	11/03/23 10:10	11/03/23 16:30
50358539002	**MW-29I**	Water	11/03/23 13:40	11/03/23 16:30

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50358539001	**MW-29B**	EPA 9056	ADM	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	ELK	6	PASI-I
		EPA 6020	DMT	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50358539002	**MW-29I**	EPA 9056	ADM	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	ELK	6	PASI-I
		EPA 6020	DMT	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50358539001	**MW-29B**					
EPA 9056	Chloride	11.8	mg/L	0.25	11/11/23 03:27	
EPA 9056	Sulfate	23.0	mg/L	0.25	11/11/23 03:27	
EPA 6010	Boron	147	ug/L	100	11/15/23 13:07	
EPA 6010	Calcium	162000	ug/L	1000	11/15/23 13:07	
EPA 6010	Magnesium	33300	ug/L	1000	11/15/23 13:07	
EPA 6010	Silica	14400	ug/L	450	11/15/23 13:07	N2
EPA 6010	Sodium	6400	ug/L	1000	11/15/23 13:07	
EPA 6010	Boron, Dissolved	122	ug/L	100	11/15/23 12:16	
EPA 6010	Magnesium, Dissolved	29200	ug/L	1000	11/15/23 12:16	
EPA 6020	Barium	77.0	ug/L	1.0	11/08/23 13:07	
EPA 6020	Cobalt	2.5	ug/L	1.0	11/14/23 03:04	
EPA 6020	Manganese	2560	ug/L	25.0	11/10/23 04:01	
EPA 6020	Manganese, Dissolved	2000	ug/L	20.0	11/09/23 19:42	
EPA 903.1	Radium-226	-0.395 ± 0.868 (1.86) C:NA T:89%	pCi/L		11/17/23 13:34	
EPA 904.0	Radium-228	0.00363 ± 0.288 (0.682) C:85% T:84%	pCi/L		11/20/23 16:04	
Total Radium Calculation	Total Radium	0.00363 ± 1.16 (2.54)	pCi/L		11/21/23 14:30	
SM 2320B	Alkalinity, Total as CaCO3	471	mg/L	10.0	11/06/23 23:51	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	471	mg/L	10.0	11/06/23 23:51	
SM 2540C	Total Dissolved Solids	500	mg/L	10.0	11/10/23 15:48	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	11/14/23 18:08	H3
EPA 353.2	Nitrogen, Nitrate	0.82	mg/L	0.10	11/04/23 01:44	
SM 5310C	Total Organic Carbon	2.2	mg/L	1.0	11/15/23 18:29	
SM 5310C	Dissolved Organic Carbon	2.2	mg/L	1.0	11/16/23 02:36	
50358539002	**MW-29I**					
EPA 9056	Bromide	0.62	mg/L	0.050	11/11/23 04:04	
EPA 9056	Chloride	19.3	mg/L	0.25	11/11/23 04:04	
EPA 9056	Sulfate	171	mg/L	2.5	11/11/23 04:23	
EPA 6010	Boron	1640	ug/L	100	11/15/23 13:09	
EPA 6010	Calcium	149000	ug/L	1000	11/15/23 13:09	
EPA 6010	Iron	5740	ug/L	100	11/15/23 13:09	
EPA 6010	Magnesium	36400	ug/L	1000	11/15/23 13:09	
EPA 6010	Silica	11900	ug/L	450	11/15/23 13:09	N2
EPA 6010	Sodium	7070	ug/L	1000	11/15/23 13:09	
EPA 6010	Boron, Dissolved	1550	ug/L	100	11/15/23 12:17	
EPA 6010	Iron, Dissolved	5150	ug/L	100	11/15/23 12:17	
EPA 6010	Magnesium, Dissolved	33200	ug/L	1000	11/15/23 12:17	
EPA 6020	Aluminum	34.3	ug/L	10.0	11/14/23 03:11	
EPA 6020	Barium	61.0	ug/L	1.0	11/08/23 13:10	
EPA 6020	Manganese	1480	ug/L	10.0	11/10/23 04:05	
EPA 6020	Manganese, Dissolved	1360	ug/L	10.0	11/09/23 19:46	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50358539002	**MW-29I**					
EPA 903.1	Radium-226	0.435 ± 0.373 (0.505) C:NA T:87%	pCi/L		11/22/23 14:51	
EPA 904.0	Radium-228	0.301 ± 0.322 (0.670) C:93% T:86%	pCi/L		11/20/23 16:01	
Total Radium Calculation	Total Radium	0.736 ± 0.695 (1.18)	pCi/L		11/27/23 13:22	
SM 2320B	Alkalinity, Total as CaCO3	309	mg/L	10.0	11/06/23 23:51	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	309	mg/L	10.0	11/06/23 23:51	
SM 2540C	Total Dissolved Solids	584	mg/L	10.0	11/10/23 15:49	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	11/16/23 14:08	H3
HACH 8146	Iron, Ferrous	2.9	mg/L	0.50	11/10/23 12:30	H3,N2
EPA 365.1	Phosphate as P04	0.60	mg/L	0.15	11/14/23 19:18	
SM 5310C	Total Organic Carbon	1.4	mg/L	1.0	11/15/23 18:39	
SM 5310C	Dissolved Organic Carbon	1.6	mg/L	1.0	11/16/23 02:46	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

Sample: MW-29B **Lab ID: 50358539001** Collected: 11/03/23 10:10 Received: 11/03/23 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	ND	mg/L	0.050	0.0090	1		11/11/23 03:27	24959-67-9	
Chloride	**11.8**	mg/L	0.25	0.067	1		11/11/23 03:27	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/11/23 03:27	16984-48-8	
Sulfate	**23.0**	mg/L	0.25	0.19	1		11/11/23 03:27	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**147**	ug/L	100	11.4	1	11/09/23 16:11	11/15/23 13:07	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/09/23 16:11	11/15/23 13:07	7440-43-9	
Calcium	**162000**	ug/L	1000	56.7	1	11/09/23 16:11	11/15/23 13:07	7440-70-2	
Iron	ND	ug/L	100	18.1	1	11/09/23 16:11	11/15/23 13:07	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/09/23 16:11	11/15/23 13:07	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/09/23 16:11	11/15/23 13:07	7439-93-2	
Magnesium	**33300**	ug/L	1000	32.8	1	11/09/23 16:11	11/15/23 13:07	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	11/09/23 16:11	11/15/23 13:07	7439-98-7	
Potassium	ND	ug/L	1000	120	1	11/09/23 16:11	11/15/23 13:07	7440-09-7	
Silica	**14400**	ug/L	450		1	11/09/23 16:11	11/15/23 13:07	7631-86-9	N2
Sodium	**6400**	ug/L	1000	48.2	1	11/09/23 16:11	11/15/23 13:07	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**122**	ug/L	100	6.2	1	11/13/23 16:22	11/15/23 12:16	7440-42-8	
Iron, Dissolved	ND	ug/L	100	30.0	1	11/13/23 16:22	11/15/23 12:16	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/13/23 16:22	11/15/23 12:16	7439-93-2	
Magnesium, Dissolved	**29200**	ug/L	1000	33.6	1	11/13/23 16:22	11/15/23 12:16	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	11/13/23 16:22	11/15/23 12:16	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	97.8	1	11/13/23 16:22	11/15/23 12:16	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	2.0	1	11/07/23 07:20	11/14/23 03:04	7429-90-5	
Arsenic	ND	ug/L	1.0	0.12	1	11/07/23 07:20	11/14/23 03:04	7440-38-2	
Barium	**77.0**	ug/L	1.0	0.065	1	11/07/23 07:20	11/08/23 13:07	7440-39-3	
Cobalt	**2.5**	ug/L	1.0	0.071	1	11/07/23 07:20	11/14/23 03:04	7440-48-4	
Manganese	**2560**	ug/L	25.0	4.0	25	11/07/23 07:20	11/10/23 04:01	7439-96-5	
Selenium	ND	ug/L	1.0	0.19	1	11/07/23 07:20	11/14/23 03:04	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/08/23 07:26	11/08/23 21:23	7429-90-5	
Manganese, Dissolved	**2000**	ug/L	20.0	3.6	20	11/08/23 07:26	11/09/23 19:42	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

Sample: MW-29B **Lab ID: 50358539001** Collected: 11/03/23 10:10 Received: 11/03/23 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**471**	mg/L	10.0	10.0	1		11/06/23 23:51		
Alkalinity,Bicarbonate (CaCO3)	**471**	mg/L	10.0	10.0	1		11/06/23 23:51		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/06/23 23:51		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**500**	mg/L	10.0	10.0	1		11/10/23 15:48		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		11/14/23 18:08		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/06/23 13:55	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/10/23 12:18	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**0.82**	mg/L	0.10	0.011	1		11/04/23 01:44	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/04/23 01:44	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/10/23 13:00	11/14/23 19:15		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**2.2**	mg/L	1.0	0.24	1		11/15/23 18:29	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.2**	mg/L	1.0	0.24	1		11/16/23 02:36		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

Sample: MW-29I **Lab ID: 50358539002** Collected: 11/03/23 13:40 Received: 11/03/23 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.62**	mg/L	0.050	0.0090	1		11/11/23 04:04	24959-67-9	
Chloride	**19.3**	mg/L	0.25	0.067	1		11/11/23 04:04	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/11/23 04:04	16984-48-8	
Sulfate	**171**	mg/L	2.5	1.9	10		11/11/23 04:23	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**1640**	ug/L	100	11.4	1	11/09/23 16:11	11/15/23 13:09	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/09/23 16:11	11/15/23 13:09	7440-43-9	
Calcium	**149000**	ug/L	1000	56.7	1	11/09/23 16:11	11/15/23 13:09	7440-70-2	
Iron	**5740**	ug/L	100	18.1	1	11/09/23 16:11	11/15/23 13:09	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/09/23 16:11	11/15/23 13:09	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/09/23 16:11	11/15/23 13:09	7439-93-2	
Magnesium	**36400**	ug/L	1000	32.8	1	11/09/23 16:11	11/15/23 13:09	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	11/09/23 16:11	11/15/23 13:09	7439-98-7	
Potassium	ND	ug/L	1000	120	1	11/09/23 16:11	11/15/23 13:09	7440-09-7	
Silica	**11900**	ug/L	450		1	11/09/23 16:11	11/15/23 13:09	7631-86-9	N2
Sodium	**7070**	ug/L	1000	48.2	1	11/09/23 16:11	11/15/23 13:09	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1550**	ug/L	100	6.2	1	11/13/23 16:22	11/15/23 12:17	7440-42-8	
Iron, Dissolved	**5150**	ug/L	100	30.0	1	11/13/23 16:22	11/15/23 12:17	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/13/23 16:22	11/15/23 12:17	7439-93-2	
Magnesium, Dissolved	**33200**	ug/L	1000	33.6	1	11/13/23 16:22	11/15/23 12:17	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	11/13/23 16:22	11/15/23 12:17	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	97.8	1	11/13/23 16:22	11/15/23 12:17	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**34.3**	ug/L	10.0	2.0	1	11/07/23 07:20	11/14/23 03:11	7429-90-5	
Arsenic	ND	ug/L	1.0	0.12	1	11/07/23 07:20	11/14/23 03:11	7440-38-2	
Barium	**61.0**	ug/L	1.0	0.065	1	11/07/23 07:20	11/08/23 13:10	7440-39-3	
Cobalt	ND	ug/L	1.0	0.071	1	11/07/23 07:20	11/14/23 03:11	7440-48-4	
Manganese	**1480**	ug/L	10.0	1.6	10	11/07/23 07:20	11/10/23 04:05	7439-96-5	
Selenium	ND	ug/L	1.0	0.19	1	11/07/23 07:20	11/14/23 03:11	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/08/23 07:26	11/08/23 21:27	7429-90-5	
Manganese, Dissolved	**1360**	ug/L	10.0	1.8	10	11/08/23 07:26	11/09/23 19:46	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

Sample: MW-29I **Lab ID: 50358539002** Collected: 11/03/23 13:40 Received: 11/03/23 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**309**	mg/L	10.0	10.0	1		11/06/23 23:51		
Alkalinity,Bicarbonate (CaCO3)	**309**	mg/L	10.0	10.0	1		11/06/23 23:51		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/06/23 23:51		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**584**	mg/L	10.0	10.0	1		11/10/23 15:49		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		11/16/23 14:08		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/06/23 13:55	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**2.9**	mg/L	0.50	0.088	2.5		11/10/23 12:30	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/04/23 02:10	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/04/23 02:10	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.60**	mg/L	0.15	0.15	1	11/10/23 13:00	11/14/23 19:18		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.4**	mg/L	1.0	0.24	1		11/15/23 18:39	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.6**	mg/L	1.0	0.24	1		11/16/23 02:46		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

QC Batch: 761953
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358539001, 50358539002

METHOD BLANK: 3492413 Matrix: Water
Associated Lab Samples: 50358539001, 50358539002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	11/10/23 13:51	
Chloride	mg/L	ND	0.25	0.067	11/10/23 13:51	
Fluoride	mg/L	ND	0.10	0.017	11/10/23 13:51	
Sulfate	mg/L	ND	0.25	0.19	11/10/23 13:51	

LABORATORY CONTROL SAMPLE: 3492414

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.96	96	80-120	
Chloride	mg/L	2.5	2.4	94	80-120	
Fluoride	mg/L	1	0.98	98	80-120	
Sulfate	mg/L	5	4.8	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3492419 3492420

Parameter	Units	50358539001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	ND	1	1	0.96	0.96	96	96	80-120	0	15	
Chloride	mg/L	11.8	2.5	2.5	14.0	14.0	88	87	80-120	0	15	
Fluoride	mg/L	ND	1	1	1.1	1.1	102	102	80-120	0	15	
Sulfate	mg/L	23.0	5	5	28.1	28.0	102	100	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

QC Batch: 761571
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358539001, 50358539002

METHOD BLANK: 3490624 Matrix: Water
Associated Lab Samples: 50358539001, 50358539002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	11.4	11/15/23 12:45	
Cadmium	ug/L	ND	2.0	0.74	11/15/23 12:45	
Calcium	ug/L	ND	1000	56.7	11/15/23 12:45	
Iron	ug/L	ND	100	18.1	11/15/23 12:45	
Lead	ug/L	ND	10.0	4.0	11/15/23 12:45	
Lithium	ug/L	ND	20.0	5.1	11/15/23 12:45	
Magnesium	ug/L	ND	1000	32.8	11/15/23 12:45	
Molybdenum	ug/L	ND	10.0	1.1	11/15/23 12:45	
Potassium	ug/L	ND	1000	120	11/15/23 12:45	
Silica	ug/L	ND	450		11/15/23 12:45	N2
Sodium	ug/L	ND	1000	48.2	11/15/23 12:45	

LABORATORY CONTROL SAMPLE: 3490625

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	1030	103	80-120	
Cadmium	ug/L	1000	1010	101	80-120	
Calcium	ug/L	10000	10300	103	80-120	
Iron	ug/L	10000	10200	102	80-120	
Lead	ug/L	1000	975	97	80-120	
Lithium	ug/L	1000	1010	101	80-120	
Magnesium	ug/L	10000	10700	107	80-120	
Molybdenum	ug/L	1000	1090	109	80-120	
Potassium	ug/L	10000	9840	98	80-120	
Silica	ug/L	10700	11400	106	80-120	N2
Sodium	ug/L	10000	9850	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3490627 3490628

Parameter	Units	50358478001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	<0.10 mg/L	1000	1000	929	997	92	99	75-125	7	20	
Cadmium	ug/L	<0.0020 mg/L	1000	1000	893	964	89	96	75-125	8	20	
Calcium	ug/L	40.7 mg/L	10000	10000	44000	46500	32	58	75-125	6	20	P6
Iron	ug/L	1.3 mg/L	10000	10000	10000	10700	87	94	75-125	7	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3490627 3490628

Parameter	Units	50358478001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	ug/L	<0.010 mg/L	1000	1000	858	923	86	92	75-125	7	20	
Lithium	ug/L	<0.020 mg/L	1000	1000	904	964	90	96	75-125	6	20	
Magnesium	ug/L	12.3 mg/L	10000	10000	19800	21000	76	87	75-125	6	20	
Molybdenum	ug/L	<0.010 mg/L	1000	1000	961	1040	96	104	75-125	8	20	
Potassium	ug/L	2.5 mg/L	10000	10000	11000	11700	85	92	75-125	6	20	
Silica	ug/L	5.1 mg/L	10700	10700	14500	15500	88	97	75-125	6	20	N2
Sodium	ug/L	<1.0 mg/L	10000	10000	9210	9820	88	94	75-125	6	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

QC Batch: 762440
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358539001, 50358539002

METHOD BLANK: 3495049 Matrix: Water
Associated Lab Samples: 50358539001, 50358539002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	11/15/23 12:06	
Iron, Dissolved	ug/L	ND	100	30.0	11/15/23 12:06	
Lithium, Dissolved	ug/L	ND	20.0	6.8	11/15/23 12:06	
Magnesium, Dissolved	ug/L	ND	1000	33.6	11/15/23 12:06	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	11/15/23 12:06	
Potassium, Dissolved	ug/L	ND	1000	97.8	11/15/23 12:06	

LABORATORY CONTROL SAMPLE: 3495050

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	995	99	80-120	
Iron, Dissolved	ug/L	10000	10300	103	80-120	
Lithium, Dissolved	ug/L	1000	1070	107	80-120	
Magnesium, Dissolved	ug/L	10000	9980	100	80-120	
Molybdenum, Dissolved	ug/L	1000	1040	104	80-120	
Potassium, Dissolved	ug/L	10000	10500	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495051 3495052

Parameter	Units	50359283003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	208	1000	1000	1220	1200	102	99	75-125	2	20	
Iron, Dissolved	ug/L	1680	10000	10000	11700	11500	101	98	75-125	2	20	
Lithium, Dissolved	ug/L	17.1J	1000	1000	1060	1030	104	102	75-125	3	20	
Magnesium, Dissolved	ug/L	43900	10000	10000	54600	53700	107	98	75-125	2	20	
Molybdenum, Dissolved	ug/L	12.5	1000	1000	1030	1010	102	99	75-125	2	20	
Potassium, Dissolved	ug/L	3570	10000	10000	13800	13400	102	98	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

QC Batch: 760988
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358539001, 50358539002

METHOD BLANK: 3488042 Matrix: Water
Associated Lab Samples: 50358539001, 50358539002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	2.0	11/08/23 12:19	
Arsenic	ug/L	ND	1.0	0.12	11/08/23 12:19	
Barium	ug/L	ND	1.0	0.065	11/08/23 12:19	
Cobalt	ug/L	ND	1.0	0.071	11/08/23 12:19	
Manganese	ug/L	ND	1.0	0.16	11/08/23 12:19	
Selenium	ug/L	ND	1.0	0.19	11/08/23 12:19	

LABORATORY CONTROL SAMPLE: 3488043

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	381	95	80-120	
Arsenic	ug/L	40	37.8	95	80-120	
Barium	ug/L	40	38.9	97	80-120	
Cobalt	ug/L	40	40.7	102	80-120	
Manganese	ug/L	40	40.7	102	80-120	
Selenium	ug/L	40	39.0	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3488180 3488181

Parameter	Units	50358538002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	91.4	400	400	445	453	88	90	75-125	2	20	
Arsenic	ug/L	ND	40	40	37.1	36.7	92	91	75-125	1	20	
Barium	ug/L	25.7	40	40	63.4	63.2	94	94	75-125	0	20	
Cobalt	ug/L	ND	40	40	37.6	38.9	92	95	75-125	3	20	
Manganese	ug/L	2070	40	40	2150	2130	200	142	75-125	1	20	P6
Selenium	ug/L	ND	40	40	41.4	41.3	102	102	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

QC Batch: 761393
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358539001, 50358539002

METHOD BLANK: 3489622 Matrix: Water
Associated Lab Samples: 50358539001, 50358539002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.8	11/08/23 20:43	
Manganese, Dissolved	ug/L	ND	1.0	0.18	11/08/23 20:43	

LABORATORY CONTROL SAMPLE: 3489623

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	404	101	80-120	
Manganese, Dissolved	ug/L	40	41.1	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3489624 3489625

Parameter	Units	50358539002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	402	395	100	98	75-125	2	20	
Manganese, Dissolved	ug/L	1360	40	40	1410	1380	127	51	75-125	2	20	P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

QC Batch: 761174
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358539001, 50358539002

METHOD BLANK: 3488938 Matrix: Water
Associated Lab Samples: 50358539001, 50358539002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/06/23 23:51	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/06/23 23:51	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/06/23 23:51	

LABORATORY CONTROL SAMPLE: 3488939

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.1	102	90-110	

SAMPLE DUPLICATE: 3488940

Parameter	Units	50358416003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	231	234	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	217	220	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	13.2	14.0	6	20	

SAMPLE DUPLICATE: 3488941

Parameter	Units	50358484003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	264	266	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	264	266	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

QC Batch: 762127
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358539001, 50358539002

METHOD BLANK: 3493486 Matrix: Water
Associated Lab Samples: 50358539001, 50358539002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/10/23 15:44	

LABORATORY CONTROL SAMPLE: 3493487

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	293	98	80-120	

SAMPLE DUPLICATE: 3493488

Parameter	Units	50358480001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		10	PL

SAMPLE DUPLICATE: 3493489

Parameter	Units	50358482004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	321	315	2	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

QC Batch: 762945
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50358539001

SAMPLE DUPLICATE: 3496910

Parameter	Units	50358484008 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.4	7.5	1	2	H3

SAMPLE DUPLICATE: 3496911

Parameter	Units	50358877003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.2	7.3	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

QC Batch: 763381
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50358539002

SAMPLE DUPLICATE: 3499082

Parameter	Units	50358539002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.1	1	2	H3

SAMPLE DUPLICATE: 3499083

Parameter	Units	50358769003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.7	6.8	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

QC Batch: 761010
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358539001, 50358539002

METHOD BLANK: 3488126 Matrix: Water
Associated Lab Samples: 50358539001, 50358539002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/06/23 13:55	

LABORATORY CONTROL SAMPLE: 3488127

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.54	109	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3488128 3488129

Parameter	Units	50358484002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.54	0.55	105	105	90-110	0	20	

MATRIX SPIKE SAMPLE: 3488130

Parameter	Units	50358538003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.51	102	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

QC Batch: 762073
QC Batch Method: HACH 8146
Analysis Method: HACH 8146
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358539001, 50358539002

METHOD BLANK: 3493243 Matrix: Water
Associated Lab Samples: 50358539001, 50358539002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/10/23 12:17	H3,N2

LABORATORY CONTROL SAMPLE: 3493244

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	104	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3493245 3493246

Parameter	Units	50358888001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.0	1.0	101	101	90-110	0	20	H3,N2

MATRIX SPIKE SAMPLE: 3493247

Parameter	Units	50358714003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.0	102	90-110	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

QC Batch: 760857
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358539001, 50358539002

METHOD BLANK: 3487300 Matrix: Water
Associated Lab Samples: 50358539001, 50358539002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/04/23 01:34	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/04/23 01:34	

LABORATORY CONTROL SAMPLE: 3487301

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.1	106	90-110	
Nitrogen, Nitrite	mg/L	1	1.1	106	90-110	

MATRIX SPIKE SAMPLE: 3487302

Parameter	Units	50358539001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	0.82	1	1.9	107	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.1	106	90-110	

MATRIX SPIKE SAMPLE: 3487303

Parameter	Units	50358538001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	0.63	63	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	99	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

QC Batch: 762076
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358539001, 50358539002

METHOD BLANK: 3493254 Matrix: Water
Associated Lab Samples: 50358539001, 50358539002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	11/14/23 19:10	

LABORATORY CONTROL SAMPLE: 3493255

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3493429 3493430

Parameter	Units	50358539001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.6	1.6				2		

MATRIX SPIKE SAMPLE: 3493431

Parameter	Units	50358577003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	0.52		2.0			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

QC Batch: 763080
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358539001, 50358539002

METHOD BLANK: 3497429 Matrix: Water
Associated Lab Samples: 50358539001, 50358539002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	11/15/23 17:02	

LABORATORY CONTROL SAMPLE: 3497430

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3497431 3497432

Parameter	Units	50358888001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	3.6	10	10	12.8	12.9	92	93	80-120	1	20	

MATRIX SPIKE SAMPLE: 3497433

Parameter	Units	50358828001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	ND	10	12.3	97	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

QC Batch: 763087
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358539001, 50358539002

METHOD BLANK: 3497510 Matrix: Water
Associated Lab Samples: 50358539001, 50358539002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	11/15/23 22:16	

LABORATORY CONTROL SAMPLE: 3497511

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3497512 3497513

Parameter	Units	50358466002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.0	10	10	11.4	11.4	94	94	80-120	0	20	

MATRIX SPIKE SAMPLE: 3497514

Parameter	Units	50358466003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	1.8	10	11.1	94	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

Sample: MW-29B **Lab ID: 50358539001** Collected: 11/03/23 10:10 Received: 11/03/23 16:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.395 ± 0.868 (1.86) C:NA T:89%**	pCi/L	11/17/23 13:34	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.00363 ± 0.288 (0.682) C:85% T:84%**	pCi/L	11/20/23 16:04	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.00363 ± 1.16 (2.54)**	pCi/L	11/21/23 14:30	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

Sample: MW-29I **Lab ID: 50358539002** Collected: 11/03/23 13:40 Received: 11/03/23 16:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.435 ± 0.373 (0.505) C:NA T:87%**	pCi/L	11/22/23 14:51	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.301 ± 0.322 (0.670) C:93% T:86%**	pCi/L	11/20/23 16:01	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.736 ± 0.695 (1.18)**	pCi/L	11/27/23 13:22	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

QC Batch: 628302
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50358539002

METHOD BLANK: 3062812 Matrix: Water
Associated Lab Samples: 50358539002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.349 ± 0.324 (0.654) C:81% T:83%	pCi/L	11/20/23 16:04	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

QC Batch: 628297
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50358539001

METHOD BLANK: 3062807 Matrix: Water
Associated Lab Samples: 50358539001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.663 ± 0.527 (0.685) C:NA T:91%	pCi/L	11/17/23 13:06	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

QC Batch: 628298
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50358539001

METHOD BLANK: 3062808 Matrix: Water
Associated Lab Samples: 50358539001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.526 ± 0.374 (0.730) C:81% T:87%	pCi/L	11/20/23 12:31	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

QC Batch: 628301
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50358539002

METHOD BLANK: 3062811 Matrix: Water
Associated Lab Samples: 50358539002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0393 ± 0.180 (0.365) C:NA T:90%	pCi/L	11/22/23 14:27	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
PL	The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358539

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50358539001	**MW-29B**	EPA 9056	761953		
50358539002	**MW-29I**	EPA 9056	761953		
50358539001	**MW-29B**	EPA 3010	761571	EPA 6010	763098
50358539002	**MW-29I**	EPA 3010	761571	EPA 6010	763098
50358539001	**MW-29B**	EPA 3010	762440	EPA 6010	763063
50358539002	**MW-29I**	EPA 3010	762440	EPA 6010	763063
50358539001	**MW-29B**	EPA 200.2	760988	EPA 6020	761424
50358539002	**MW-29I**	EPA 200.2	760988	EPA 6020	761424
50358539001	**MW-29B**	EPA 200.2	761393	EPA 6020	761595
50358539002	**MW-29I**	EPA 200.2	761393	EPA 6020	761595
50358539001	**MW-29B**	EPA 903.1	628297		
50358539002	**MW-29I**	EPA 903.1	628301		
50358539001	**MW-29B**	EPA 904.0	628298		
50358539002	**MW-29I**	EPA 904.0	628302		
50358539001	**MW-29B**	Total Radium Calculation	631474		
50358539002	**MW-29I**	Total Radium Calculation	632112		
50358539001	**MW-29B**	SM 2320B	761174		
50358539002	**MW-29I**	SM 2320B	761174		
50358539001	**MW-29B**	SM 2540C	762127		
50358539002	**MW-29I**	SM 2540C	762127		
50358539001	**MW-29B**	SM 4500-H+B	762945		
50358539002	**MW-29I**	SM 4500-H+B	763381		
50358539001	**MW-29B**	SM 4500-S2-D	761010		
50358539002	**MW-29I**	SM 4500-S2-D	761010		
50358539001	**MW-29B**	HACH 8146	762073		
50358539002	**MW-29I**	HACH 8146	762073		
50358539001	**MW-29B**	EPA 353.2	760857		
50358539002	**MW-29I**	EPA 353.2	760857		
50358539001	**MW-29B**	EPA 365.1	762076	EPA 365.1	762970
50358539002	**MW-29I**	EPA 365.1	762076	EPA 365.1	762970
50358539001	**MW-29B**	SM 5310C	763080		
50358539002	**MW-29I**	SM 5310C	763080		
50358539001	**MW-29B**	SM 5310C	763087		
50358539002	**MW-29I**	SM 5310C	763087		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

WO# : 50358539

50358539

N-OF-CUSTODY / Analytical Request Document

n-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of

Section A
Required Client Information:

Company:	Atlas Indianapolis
Address:	7988 Centerpoint Drive Suite 100
	Indianapolis, IN 46256
Email:	mark.breting@oneatlas.com
Phone:	(317)579-4082 Fax:
Requested Due Date:	

Section B

Report To:	Mark Breting
Copy To:	
Purchase Order #:	
Project Name:	Petersburg P4R3 Nov 2023
Project #:	

Section C
Invoice Information:

Attention:	Accounts Payable - Paula Sedam
Company Name:	Atlas Indianapolis
Address:	
Pace Quote:	
Pace Project Manager:	Will Statz
Pace Profile #:	10498/53

Regulatory Agency

State / Location
IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO2, NO3 Wet	(Br, Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity*, Ferrous Iron, pH	TOC by 5310C	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum			Residual Chlorine (Y/N)	
	MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																		Y				Y								
1	MW-29B	WT	G	11/3	9:50	11/3	10:10		11	4	4	2		1					X	X	X	X	X	X	X	X	X	X			007
2	MW-29I	WT	G	11/3	12:25	11/3	1:40		11	4	4	2		1					X	X	X	X	X	X	X	X	X	X			005
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
* Metals: 6010 (B, Cd, Fe, Pb, Mo, Ca, Mg, Na, K, Li, sila) (11)	Mohammed Bazlamit	11/3/23	16:30	[illegible]	11/3/23	16:30	0.7	Y	N	Y
6020 (Al, Mn, Co, As, Se, Ba) (6)										
** Dissolved FF 6010 (B, Fe, Mo, Mg, K, Li) (6) FF 6020 (Al, Mn) (2)										
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Carsen Clouser

SIGNATURE of SAMPLER: Carsen Clouser DATE Signed: 11/3/23

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 11/3/23 17:58 JG

1. **Courier:** ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☐ Yes ☑ No

(If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B (C) D E F G H

4. **Cooler Temperature(s):** 0.1/0.1 | | | |

(Initial/Corrected) **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**

5. **Packing Material:** ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		—	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	—		
Short Hold Time Analysis (48 hours or less)? **Analysis:** NO2, NO3	—					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
Rush TAT Requested (4 days or less):		—	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			—
Custody Signatures Present?	—		Residual Chlorine Check (Total/Amenable/Free Cyanide)			—
			Headspace Wisconsin Sulfide?			—
Containers Intact?:	—		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent —
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	—		Trip Blank Present?		—	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			—

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1												1	1			2	1	2	1	1	1		1				WT	✓	✓		✓
2												↓	↓			↓	↓	↓	↓	↓	↓		↓				↓	↓	↓		↓
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 08, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 07, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50358877001	**MW-41A**	Water	11/06/23 11:10	11/07/23 12:15
50358877002	**MW-41I**	Water	11/06/23 12:00	11/07/23 12:15
50358877003	**MW-41B**	Water	11/06/23 13:25	11/07/23 12:15
50358877004	**MW-36I**	Water	11/06/23 16:04	11/07/23 12:15

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50358877001	**MW-41A**	EPA 9056	ADM	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	ELK	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	DMT	2	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50358877002	**MW-41I**	EPA 9056	ADM	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	ELK	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	DMT	2	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50358877003	**MW-41B**	EPA 9056	ADM	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	ELK	6	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	CAW	6	PASI-I
		EPA 6020	DMT	2	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50358877004	**MW-36I**	EPA 9056	ADM	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	ELK	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	DMT	2	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50358877001	**MW-41A**					
EPA 9056	Bromide	0.68	mg/L	0.050	11/12/23 03:35	
EPA 9056	Chloride	41.9	mg/L	2.5	11/12/23 03:54	
EPA 9056	Sulfate	517	mg/L	25.0	11/12/23 04:12	
EPA 6010	Boron	8950	ug/L	100	11/15/23 14:17	
EPA 6010	Calcium	262000	ug/L	2000	11/15/23 15:32	
EPA 6010	Iron	5770	ug/L	100	11/15/23 14:17	
EPA 6010	Magnesium	27800	ug/L	1000	11/15/23 14:17	
EPA 6010	Molybdenum	361	ug/L	10.0	11/15/23 14:17	
EPA 6010	Potassium	4380	ug/L	1000	11/15/23 14:17	
EPA 6010	Silica	13200	ug/L	450	11/15/23 14:17	N2
EPA 6010	Sodium	21400	ug/L	1000	11/15/23 14:17	
EPA 6010	Boron, Dissolved	9310	ug/L	100	11/15/23 11:45	
EPA 6010	Iron, Dissolved	5930	ug/L	100	11/15/23 11:45	
EPA 6010	Magnesium, Dissolved	26700	ug/L	1000	11/15/23 11:45	
EPA 6010	Molybdenum, Dissolved	382	ug/L	10.0	11/15/23 11:45	
EPA 6010	Potassium, Dissolved	4700	ug/L	1000	11/15/23 11:45	
EPA 6020	Aluminum	35.3	ug/L	10.0	11/10/23 00:08	
EPA 6020	Barium	25.8	ug/L	1.0	11/10/23 00:08	
EPA 6020	Manganese	963	ug/L	10.0	11/10/23 15:19	
EPA 6020	Manganese, Dissolved	941	ug/L	10.0	11/09/23 06:03	
EPA 903.1	Radium-226	0.0826 ± 0.344 (0.655) C:NA T:86%	pCi/L		12/04/23 11:49	
EPA 904.0	Radium-228	0.591 ± 0.354 (0.638) C:76% T:86%	pCi/L		11/22/23 12:56	
Total Radium Calculation	Total Radium	0.674 ± 0.698 (1.29)	pCi/L		12/04/23 16:26	
SM 2320B	Alkalinity, Total as CaCO3	214	mg/L	10.0	11/08/23 22:51	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	214	mg/L	10.0	11/08/23 22:51	
SM 2540C	Total Dissolved Solids	1070	mg/L	10.0	11/10/23 17:37	
SM 4500-H+B	pH at 25 Degrees C	6.7	Std. Units	0.10	11/14/23 18:17	H3
EPA 365.1	Phosphate as P04	0.45	mg/L	0.15	11/17/23 13:08	
SM 5310C	Total Organic Carbon	1.0	mg/L	1.0	11/18/23 04:03	
SM 5310C	Dissolved Organic Carbon	3.0	mg/L	1.0	11/17/23 18:04	
50358877002	**MW-41I**					
EPA 9056	Bromide	0.40	mg/L	0.050	11/12/23 04:30	
EPA 9056	Chloride	14.0	mg/L	0.25	11/12/23 04:30	
EPA 9056	Sulfate	104	mg/L	2.5	11/12/23 04:49	
EPA 6010	Boron	1900	ug/L	100	11/15/23 14:19	
EPA 6010	Calcium	116000	ug/L	1000	11/15/23 14:19	
EPA 6010	Iron	4810	ug/L	100	11/15/23 14:19	
EPA 6010	Magnesium	29000	ug/L	1000	11/15/23 14:19	
EPA 6010	Silica	12600	ug/L	450	11/15/23 14:19	N2
EPA 6010	Sodium	9270	ug/L	1000	11/15/23 14:19	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50358877002	**MW-41I**					
EPA 6010	Boron, Dissolved	1850	ug/L	100	11/15/23 11:46	
EPA 6010	Iron, Dissolved	4650	ug/L	100	11/15/23 11:46	
EPA 6010	Magnesium, Dissolved	27200	ug/L	1000	11/15/23 11:46	
EPA 6020	Aluminum	49.2	ug/L	10.0	11/10/23 00:12	
EPA 6020	Arsenic	1.7	ug/L	1.0	11/10/23 16:34	
EPA 6020	Barium	67.3	ug/L	1.0	11/10/23 00:12	
EPA 6020	Manganese	1480	ug/L	10.0	11/10/23 15:22	
EPA 6020	Manganese, Dissolved	1420	ug/L	10.0	11/09/23 06:06	
EPA 903.1	Radium-226	0.226 ± 0.267 (0.420) C:NA T:81%	pCi/L		12/04/23 11:49	
EPA 904.0	Radium-228	0.237 ± 0.316 (0.672) C:82% T:81%	pCi/L		11/22/23 12:56	
Total Radium Calculation	Total Radium	0.463 ± 0.583 (1.09)	pCi/L		12/04/23 16:26	
SM 2320B	Alkalinity, Total as CaCO3	282	mg/L	10.0	11/08/23 22:51	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	282	mg/L	10.0	11/08/23 22:51	
SM 2540C	Total Dissolved Solids	446	mg/L	10.0	11/10/23 17:37	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	11/14/23 18:17	H3
EPA 365.1	Phosphate as P04	0.67	mg/L	0.15	11/17/23 13:08	
SM 5310C	Dissolved Organic Carbon	3.7	mg/L	1.0	11/17/23 18:15	
50358877003	**MW-41B**					
EPA 9056	Bromide	0.090	mg/L	0.050	11/12/23 05:07	
EPA 9056	Chloride	7.3	mg/L	0.25	11/12/23 05:07	
EPA 9056	Fluoride	0.10	mg/L	0.10	11/12/23 05:07	
EPA 9056	Sulfate	40.1	mg/L	0.25	11/12/23 05:07	
EPA 6010	Boron	390	ug/L	100	11/15/23 14:20	
EPA 6010	Calcium	107000	ug/L	1000	11/15/23 14:20	
EPA 6010	Magnesium	26500	ug/L	1000	11/15/23 14:20	
EPA 6010	Silica	12400	ug/L	450	11/15/23 14:20	N2
EPA 6010	Sodium	5440	ug/L	1000	11/15/23 14:20	
EPA 6010	Boron, Dissolved	383	ug/L	100	11/15/23 11:48	
EPA 6010	Magnesium, Dissolved	25300	ug/L	1000	11/15/23 11:48	
EPA 6020	Barium	35.7	ug/L	1.0	11/10/23 00:18	
EPA 6020	Manganese	1130	ug/L	10.0	11/10/23 15:25	
EPA 6020	Selenium	2.8	ug/L	1.0	11/10/23 00:18	
EPA 6020	Manganese, Dissolved	1070	ug/L	10.0	11/09/23 06:10	
EPA 903.1	Radium-226	-0.181 ± 0.416 (0.881) C:NA T:79%	pCi/L		12/04/23 11:49	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50358877003	**MW-41B**					
EPA 904.0	Radium-228	0.621 ± 0.385 (0.713) C:85% T:79%	pCi/L		11/22/23 12:56	
Total Radium Calculation	Total Radium	0.621 ± 0.801 (1.59)	pCi/L		12/04/23 16:26	
SM 2320B	Alkalinity, Total as CaCO3	316	mg/L	10.0	11/08/23 22:51	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	316	mg/L	10.0	11/08/23 22:51	
SM 2540C	Total Dissolved Solids	397	mg/L	10.0	11/10/23 17:37	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	11/14/23 18:19	H3
EPA 353.2	Nitrogen, Nitrate	2.5	mg/L	0.10	11/07/23 23:27	
SM 5310C	Dissolved Organic Carbon	3.6	mg/L	1.0	11/17/23 18:27	
50358877004	**MW-36I**					
EPA 9056	Bromide	0.067	mg/L	0.050	11/12/23 07:16	
EPA 9056	Chloride	6.5	mg/L	0.25	11/12/23 07:16	
EPA 9056	Sulfate	303	mg/L	2.5	11/14/23 23:51	
EPA 6010	Boron	1010	ug/L	100	11/15/23 14:22	
EPA 6010	Calcium	151000	ug/L	1000	11/15/23 14:22	
EPA 6010	Iron	5330	ug/L	100	11/15/23 14:22	
EPA 6010	Magnesium	44100	ug/L	1000	11/15/23 14:22	
EPA 6010	Potassium	1620	ug/L	1000	11/15/23 14:22	
EPA 6010	Silica	13200	ug/L	450	11/15/23 14:22	N2
EPA 6010	Sodium	7670	ug/L	1000	11/15/23 14:22	
EPA 6010	Boron, Dissolved	1010	ug/L	100	11/15/23 11:49	
EPA 6010	Iron, Dissolved	4970	ug/L	100	11/15/23 11:49	
EPA 6010	Magnesium, Dissolved	42400	ug/L	1000	11/15/23 11:49	
EPA 6010	Potassium, Dissolved	1620	ug/L	1000	11/15/23 11:49	
EPA 6020	Aluminum	102	ug/L	10.0	11/10/23 00:22	
EPA 6020	Arsenic	1.1	ug/L	1.0	11/10/23 16:51	
EPA 6020	Barium	64.4	ug/L	1.0	11/10/23 00:22	
EPA 6020	Manganese	765	ug/L	10.0	11/10/23 15:29	
EPA 6020	Manganese, Dissolved	713	ug/L	5.0	11/09/23 06:13	
EPA 903.1	Radium-226	-0.128 ± 0.278 (0.641) C:NA T:85%	pCi/L		12/04/23 11:49	
EPA 904.0	Radium-228	0.320 ± 0.345 (0.717) C:80% T:85%	pCi/L		11/22/23 12:56	
Total Radium Calculation	Total Radium	0.320 ± 0.623 (1.36)	pCi/L		12/04/23 16:26	
SM 2320B	Alkalinity, Total as CaCO3	249	mg/L	10.0	11/08/23 22:51	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	249	mg/L	10.0	11/08/23 22:51	
SM 2540C	Total Dissolved Solids	679	mg/L	10.0	11/10/23 17:37	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	11/16/23 16:42	H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50358877004	**MW-36I**					
EPA 365.1	Phosphate as P04	0.39	mg/L	0.15	11/17/23 13:09	
SM 5310C	Dissolved Organic Carbon	4.0	mg/L	1.0	11/17/23 18:38	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

Sample: MW-41A **Lab ID: 50358877001** Collected: 11/06/23 11:10 Received: 11/07/23 12:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.68**	mg/L	0.050	0.0090	1		11/12/23 03:35	24959-67-9	
Chloride	**41.9**	mg/L	2.5	0.67	10		11/12/23 03:54	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/12/23 03:35	16984-48-8	
Sulfate	**517**	mg/L	25.0	19.0	100		11/12/23 04:12	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**8950**	ug/L	100	11.4	1	11/09/23 20:47	11/15/23 14:17	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/09/23 20:47	11/15/23 14:17	7440-43-9	
Calcium	**262000**	ug/L	2000	113	2	11/09/23 20:47	11/15/23 15:32	7440-70-2	
Iron	**5770**	ug/L	100	18.1	1	11/09/23 20:47	11/15/23 14:17	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/09/23 20:47	11/15/23 14:17	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/09/23 20:47	11/15/23 14:17	7439-93-2	
Magnesium	**27800**	ug/L	1000	32.8	1	11/09/23 20:47	11/15/23 14:17	7439-95-4	
Molybdenum	**361**	ug/L	10.0	1.1	1	11/09/23 20:47	11/15/23 14:17	7439-98-7	
Potassium	**4380**	ug/L	1000	120	1	11/09/23 20:47	11/15/23 14:17	7440-09-7	
Silica	**13200**	ug/L	450		1	11/09/23 20:47	11/15/23 14:17	7631-86-9	N2
Sodium	**21400**	ug/L	1000	48.2	1	11/09/23 20:47	11/15/23 14:17	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**9310**	ug/L	100	6.2	1	11/13/23 16:22	11/15/23 11:45	7440-42-8	
Iron, Dissolved	**5930**	ug/L	100	30.0	1	11/13/23 16:22	11/15/23 11:45	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/13/23 16:22	11/15/23 11:45	7439-93-2	
Magnesium, Dissolved	**26700**	ug/L	1000	33.6	1	11/13/23 16:22	11/15/23 11:45	7439-95-4	
Molybdenum, Dissolved	**382**	ug/L	10.0	0.78	1	11/13/23 16:22	11/15/23 11:45	7439-98-7	
Potassium, Dissolved	**4700**	ug/L	1000	97.8	1	11/13/23 16:22	11/15/23 11:45	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**35.3**	ug/L	10.0	2.3	1	11/08/23 15:12	11/10/23 00:08	7429-90-5	
Arsenic	ND	ug/L	1.0	0.075	1	11/08/23 15:12	11/10/23 16:30	7440-38-2	
Barium	**25.8**	ug/L	1.0	0.077	1	11/08/23 15:12	11/10/23 00:08	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/08/23 15:12	11/10/23 00:08	7440-48-4	
Manganese	**963**	ug/L	10.0	1.7	10	11/08/23 15:12	11/10/23 15:19	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	11/08/23 15:12	11/10/23 00:08	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	11/08/23 15:12	11/09/23 04:06	7429-90-5	
Manganese, Dissolved	**941**	ug/L	10.0	0.43	10	11/08/23 15:12	11/09/23 06:03	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

Sample: MW-41A **Lab ID: 50358877001** Collected: 11/06/23 11:10 Received: 11/07/23 12:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**214**	mg/L	10.0	10.0	1		11/08/23 22:51		
Alkalinity,Bicarbonate (CaCO3)	**214**	mg/L	10.0	10.0	1		11/08/23 22:51		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/08/23 22:51		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1070**	mg/L	10.0	10.0	1		11/10/23 17:37		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.7**	Std. Units	0.10	0.10	1		11/14/23 18:17		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/09/23 11:58	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/10/23 13:59	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/07/23 23:20	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/07/23 23:20	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.45**	mg/L	0.15	0.15	1	11/16/23 11:00	11/17/23 13:08		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.0**	mg/L	1.0	0.24	1		11/18/23 04:03	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.0**	mg/L	1.0	0.24	1		11/17/23 18:04		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

Sample: MW-41I **Lab ID: 50358877002** Collected: 11/06/23 12:00 Received: 11/07/23 12:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.40**	mg/L	0.050	0.0090	1		11/12/23 04:30	24959-67-9	
Chloride	**14.0**	mg/L	0.25	0.067	1		11/12/23 04:30	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/12/23 04:30	16984-48-8	
Sulfate	**104**	mg/L	2.5	1.9	10		11/12/23 04:49	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**1900**	ug/L	100	11.4	1	11/09/23 20:47	11/15/23 14:19	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/09/23 20:47	11/15/23 14:19	7440-43-9	
Calcium	**116000**	ug/L	1000	56.7	1	11/09/23 20:47	11/15/23 14:19	7440-70-2	
Iron	**4810**	ug/L	100	18.1	1	11/09/23 20:47	11/15/23 14:19	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/09/23 20:47	11/15/23 14:19	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/09/23 20:47	11/15/23 14:19	7439-93-2	
Magnesium	**29000**	ug/L	1000	32.8	1	11/09/23 20:47	11/15/23 14:19	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	11/09/23 20:47	11/15/23 14:19	7439-98-7	
Potassium	ND	ug/L	1000	120	1	11/09/23 20:47	11/15/23 14:19	7440-09-7	
Silica	**12600**	ug/L	450		1	11/09/23 20:47	11/15/23 14:19	7631-86-9	N2
Sodium	**9270**	ug/L	1000	48.2	1	11/09/23 20:47	11/15/23 14:19	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1850**	ug/L	100	6.2	1	11/13/23 16:22	11/15/23 11:46	7440-42-8	
Iron, Dissolved	**4650**	ug/L	100	30.0	1	11/13/23 16:22	11/15/23 11:46	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/13/23 16:22	11/15/23 11:46	7439-93-2	
Magnesium, Dissolved	**27200**	ug/L	1000	33.6	1	11/13/23 16:22	11/15/23 11:46	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	11/13/23 16:22	11/15/23 11:46	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	97.8	1	11/13/23 16:22	11/15/23 11:46	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**49.2**	ug/L	10.0	2.3	1	11/08/23 15:12	11/10/23 00:12	7429-90-5	
Arsenic	**1.7**	ug/L	1.0	0.075	1	11/08/23 15:12	11/10/23 16:34	7440-38-2	
Barium	**67.3**	ug/L	1.0	0.077	1	11/08/23 15:12	11/10/23 00:12	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/08/23 15:12	11/10/23 00:12	7440-48-4	
Manganese	**1480**	ug/L	10.0	1.7	10	11/08/23 15:12	11/10/23 15:22	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	11/08/23 15:12	11/10/23 00:12	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	11/08/23 15:12	11/09/23 04:09	7429-90-5	
Manganese, Dissolved	**1420**	ug/L	10.0	0.43	10	11/08/23 15:12	11/09/23 06:06	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

Sample: MW-41I **Lab ID: 50358877002** Collected: 11/06/23 12:00 Received: 11/07/23 12:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**282**	mg/L	10.0	10.0	1		11/08/23 22:51		
Alkalinity,Bicarbonate (CaCO3)	**282**	mg/L	10.0	10.0	1		11/08/23 22:51		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/08/23 22:51		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**446**	mg/L	10.0	10.0	1		11/10/23 17:37		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		11/14/23 18:17		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/09/23 11:58	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/10/23 13:59	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/07/23 23:21	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/07/23 23:21	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.67**	mg/L	0.15	0.15	1	11/16/23 11:00	11/17/23 13:08		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.24	1		11/18/23 04:48	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.7**	mg/L	1.0	0.24	1		11/17/23 18:15		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

Sample: MW-41B **Lab ID: 50358877003** Collected: 11/06/23 13:25 Received: 11/07/23 12:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.090**	mg/L	0.050	0.0090	1		11/12/23 05:07	24959-67-9	
Chloride	**7.3**	mg/L	0.25	0.067	1		11/12/23 05:07	16887-00-6	
Fluoride	**0.10**	mg/L	0.10	0.017	1		11/12/23 05:07	16984-48-8	
Sulfate	**40.1**	mg/L	0.25	0.19	1		11/12/23 05:07	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**390**	ug/L	100	11.4	1	11/09/23 20:47	11/15/23 14:20	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/09/23 20:47	11/15/23 14:20	7440-43-9	
Calcium	**107000**	ug/L	1000	56.7	1	11/09/23 20:47	11/15/23 14:20	7440-70-2	
Iron	ND	ug/L	100	18.1	1	11/09/23 20:47	11/15/23 14:20	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/09/23 20:47	11/15/23 14:20	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/09/23 20:47	11/15/23 14:20	7439-93-2	
Magnesium	**26500**	ug/L	1000	32.8	1	11/09/23 20:47	11/15/23 14:20	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	11/09/23 20:47	11/15/23 14:20	7439-98-7	
Potassium	ND	ug/L	1000	120	1	11/09/23 20:47	11/15/23 14:20	7440-09-7	
Silica	**12400**	ug/L	450		1	11/09/23 20:47	11/15/23 14:20	7631-86-9	N2
Sodium	**5440**	ug/L	1000	48.2	1	11/09/23 20:47	11/15/23 14:20	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**383**	ug/L	100	6.2	1	11/13/23 16:22	11/15/23 11:48	7440-42-8	
Iron, Dissolved	ND	ug/L	100	30.0	1	11/13/23 16:22	11/15/23 11:48	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/13/23 16:22	11/15/23 11:48	7439-93-2	
Magnesium, Dissolved	**25300**	ug/L	1000	33.6	1	11/13/23 16:22	11/15/23 11:48	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	11/13/23 16:22	11/15/23 11:48	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	97.8	1	11/13/23 16:22	11/15/23 11:48	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	2.3	1	11/08/23 15:12	11/10/23 00:18	7429-90-5	
Arsenic	ND	ug/L	1.0	0.075	1	11/08/23 15:12	11/10/23 16:41	7440-38-2	
Barium	**35.7**	ug/L	1.0	0.077	1	11/08/23 15:12	11/10/23 00:18	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/08/23 15:12	11/10/23 00:18	7440-48-4	
Manganese	**1130**	ug/L	10.0	1.7	10	11/08/23 15:12	11/10/23 15:25	7439-96-5	
Selenium	**2.8**	ug/L	1.0	0.20	1	11/08/23 15:12	11/10/23 00:18	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	11/08/23 15:12	11/09/23 04:19	7429-90-5	
Manganese, Dissolved	**1070**	ug/L	10.0	0.43	10	11/08/23 15:12	11/09/23 06:10	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

Sample: MW-41B **Lab ID: 50358877003** Collected: 11/06/23 13:25 Received: 11/07/23 12:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**316**	mg/L	10.0	10.0	1		11/08/23 22:51		
Alkalinity,Bicarbonate (CaCO3)	**316**	mg/L	10.0	10.0	1		11/08/23 22:51		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/08/23 22:51		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**397**	mg/L	10.0	10.0	1		11/10/23 17:37		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		11/14/23 18:19		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/09/23 11:58	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/10/23 14:02	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**2.5**	mg/L	0.10	0.011	1		11/07/23 23:27	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/07/23 23:27	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/16/23 11:00	11/17/23 13:09		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.24	1		11/18/23 05:13	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.6**	mg/L	1.0	0.24	1		11/17/23 18:27		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

Sample: MW-36I **Lab ID: 50358877004** Collected: 11/06/23 16:04 Received: 11/07/23 12:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.067**	mg/L	0.050	0.0090	1		11/12/23 07:16	24959-67-9	
Chloride	**6.5**	mg/L	0.25	0.067	1		11/12/23 07:16	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/12/23 07:16	16984-48-8	
Sulfate	**303**	mg/L	2.5	1.9	10		11/14/23 23:51	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**1010**	ug/L	100	11.4	1	11/09/23 20:47	11/15/23 14:22	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/09/23 20:47	11/15/23 14:22	7440-43-9	
Calcium	**151000**	ug/L	1000	56.7	1	11/09/23 20:47	11/15/23 14:22	7440-70-2	
Iron	**5330**	ug/L	100	18.1	1	11/09/23 20:47	11/15/23 14:22	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/09/23 20:47	11/15/23 14:22	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/09/23 20:47	11/15/23 14:22	7439-93-2	
Magnesium	**44100**	ug/L	1000	32.8	1	11/09/23 20:47	11/15/23 14:22	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	11/09/23 20:47	11/15/23 14:22	7439-98-7	
Potassium	**1620**	ug/L	1000	120	1	11/09/23 20:47	11/15/23 14:22	7440-09-7	
Silica	**13200**	ug/L	450		1	11/09/23 20:47	11/15/23 14:22	7631-86-9	N2
Sodium	**7670**	ug/L	1000	48.2	1	11/09/23 20:47	11/15/23 14:22	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1010**	ug/L	100	6.2	1	11/13/23 16:22	11/15/23 11:49	7440-42-8	
Iron, Dissolved	**4970**	ug/L	100	30.0	1	11/13/23 16:22	11/15/23 11:49	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/13/23 16:22	11/15/23 11:49	7439-93-2	
Magnesium, Dissolved	**42400**	ug/L	1000	33.6	1	11/13/23 16:22	11/15/23 11:49	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	11/13/23 16:22	11/15/23 11:49	7439-98-7	
Potassium, Dissolved	**1620**	ug/L	1000	97.8	1	11/13/23 16:22	11/15/23 11:49	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**102**	ug/L	10.0	2.3	1	11/08/23 15:12	11/10/23 00:22	7429-90-5	
Arsenic	**1.1**	ug/L	1.0	0.075	1	11/08/23 15:12	11/10/23 16:51	7440-38-2	
Barium	**64.4**	ug/L	1.0	0.077	1	11/08/23 15:12	11/10/23 00:22	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/08/23 15:12	11/10/23 00:22	7440-48-4	
Manganese	**765**	ug/L	10.0	1.7	10	11/08/23 15:12	11/10/23 15:29	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	11/08/23 15:12	11/10/23 00:22	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	11/08/23 15:12	11/09/23 04:23	7429-90-5	
Manganese, Dissolved	**713**	ug/L	5.0	0.22	5	11/08/23 15:12	11/09/23 06:13	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

Sample: MW-36I **Lab ID: 50358877004** Collected: 11/06/23 16:04 Received: 11/07/23 12:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**249**	mg/L	10.0	10.0	1		11/08/23 22:51		
Alkalinity,Bicarbonate (CaCO3)	**249**	mg/L	10.0	10.0	1		11/08/23 22:51		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/08/23 22:51		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**679**	mg/L	10.0	10.0	1		11/10/23 17:37		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		11/16/23 16:42		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/09/23 11:58	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/10/23 14:02	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/07/23 23:40	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/07/23 23:40	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.39**	mg/L	0.15	0.15	1	11/16/23 11:00	11/17/23 13:09		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.24	1		11/18/23 05:39	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**4.0**	mg/L	1.0	0.24	1		11/17/23 18:38		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

QC Batch: 762350
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358877001, 50358877002, 50358877003, 50358877004

METHOD BLANK: 3494753 Matrix: Water
Associated Lab Samples: 50358877001, 50358877002, 50358877003, 50358877004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	11/11/23 16:40	
Chloride	mg/L	ND	0.25	0.067	11/11/23 16:40	
Fluoride	mg/L	ND	0.10	0.017	11/11/23 16:40	
Sulfate	mg/L	ND	0.25	0.19	11/11/23 16:40	

LABORATORY CONTROL SAMPLE: 3494754

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.98	98	80-120	
Chloride	mg/L	2.5	2.3	93	80-120	
Fluoride	mg/L	1	0.94	94	80-120	
Sulfate	mg/L	5	4.8	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3494755 3494756

Parameter	Units	50358888001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	0.67	1	1	1.6	1.6	96	97	80-120	0	15	
Chloride	mg/L	40.6	25	25	64.4	64.3	95	95	80-120	0	15	
Fluoride	mg/L	0.11	1	1	1.1	1.1	98	99	80-120	1	15	
Sulfate	mg/L	1200	500	500	1700	1670	99	93	80-120	2	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

QC Batch: 761794
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358877001, 50358877002, 50358877003, 50358877004

METHOD BLANK: 3491668 Matrix: Water
Associated Lab Samples: 50358877001, 50358877002, 50358877003, 50358877004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	11.4	11/15/23 13:48	
Cadmium	ug/L	ND	2.0	0.74	11/15/23 13:48	
Calcium	ug/L	ND	1000	56.7	11/15/23 13:48	
Iron	ug/L	ND	100	18.1	11/15/23 13:48	
Lead	ug/L	ND	10.0	4.0	11/15/23 13:48	
Lithium	ug/L	ND	20.0	5.1	11/15/23 13:48	
Magnesium	ug/L	ND	1000	32.8	11/15/23 13:48	
Molybdenum	ug/L	ND	10.0	1.1	11/15/23 13:48	
Potassium	ug/L	ND	1000	120	11/15/23 13:48	
Silica	ug/L	ND	450		11/15/23 13:48	N2
Sodium	ug/L	ND	1000	48.2	11/15/23 13:48	

LABORATORY CONTROL SAMPLE: 3491669

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	926	93	80-120	
Cadmium	ug/L	1000	905	91	80-120	
Calcium	ug/L	10000	9240	92	80-120	
Iron	ug/L	10000	9120	91	80-120	
Lead	ug/L	1000	876	88	80-120	
Lithium	ug/L	1000	920	92	80-120	
Magnesium	ug/L	10000	9590	96	80-120	
Molybdenum	ug/L	1000	969	97	80-120	
Potassium	ug/L	10000	9010	90	80-120	
Silica	ug/L	10700	10200	96	80-120	N2
Sodium	ug/L	10000	9050	91	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3491670 3491671

Parameter	Units	50358778008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	<100	1000	1000	966	983	95	96	75-125	2	20	
Cadmium	ug/L	<2.0	1000	1000	917	932	92	93	75-125	2	20	
Calcium	ug/L	61200	10000	10000	71800	73700	105	124	75-125	3	20	
Iron	ug/L	551	10000	10000	9680	9850	91	93	75-125	2	20	
Lead	ug/L	<10.0	1000	1000	867	884	87	88	75-125	2	20	
Lithium	ug/L	<20.0	1000	1000	923	949	92	95	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3491670 3491671

Parameter	Units	50358778008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Magnesium	ug/L	26500	10000	10000	36400	37300	99	108	75-125	2	20	
Molybdenum	ug/L	<10.0	1000	1000	986	1000	99	100	75-125	2	20	
Potassium	ug/L	1260	10000	10000	10300	10600	91	93	75-125	2	20	
Silica	ug/L	14200	10700	10700	25000	25500	101	106	75-125	2	20	N2
Sodium	ug/L	5510	10000	10000	14600	14900	91	94	75-125	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3491672 3491673

Parameter	Units	50358778011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	<100	1000	1000	979	966	96	94	75-125	1	20	
Cadmium	ug/L	<2.0	1000	1000	929	927	93	93	75-125	0	20	
Calcium	ug/L	34700	10000	10000	44100	42700	93	80	75-125	3	20	
Iron	ug/L	<100	10000	10000	9400	9200	93	91	75-125	2	20	
Lead	ug/L	<10.0	1000	1000	890	888	89	89	75-125	0	20	
Lithium	ug/L	<20.0	1000	1000	936	928	93	93	75-125	1	20	
Magnesium	ug/L	9160	10000	10000	18800	18400	97	92	75-125	2	20	
Molybdenum	ug/L	<10.0	1000	1000	1000	996	100	100	75-125	1	20	
Potassium	ug/L	3930	10000	10000	13200	12800	92	89	75-125	3	20	
Silica	ug/L	10000	10700	10700	20600	20100	99	94	75-125	2	20	N2
Sodium	ug/L	5580	10000	10000	14700	14400	91	88	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

QC Batch: 762441
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358877001, 50358877002, 50358877003, 50358877004

METHOD BLANK: 3495053 Matrix: Water
Associated Lab Samples: 50358877001, 50358877002, 50358877003, 50358877004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	11/15/23 11:25	
Iron, Dissolved	ug/L	ND	100	30.0	11/15/23 11:25	
Lithium, Dissolved	ug/L	ND	20.0	6.8	11/15/23 11:25	
Magnesium, Dissolved	ug/L	ND	1000	33.6	11/15/23 11:25	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	11/15/23 11:25	
Potassium, Dissolved	ug/L	ND	1000	97.8	11/15/23 11:25	

LABORATORY CONTROL SAMPLE: 3495054

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	961	96	80-120	
Iron, Dissolved	ug/L	10000	9980	100	80-120	
Lithium, Dissolved	ug/L	1000	1030	103	80-120	
Magnesium, Dissolved	ug/L	10000	9710	97	80-120	
Molybdenum, Dissolved	ug/L	1000	1020	102	80-120	
Potassium, Dissolved	ug/L	10000	9970	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495055 3495056

Parameter	Units	50358888001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	4200	1000	1000	5140	5210	94	101	75-125	1	20	
Iron, Dissolved	ug/L	6900	10000	10000	16500	16700	96	98	75-125	1	20	
Lithium, Dissolved	ug/L	1090	1000	1000	2120	2150	103	105	75-125	1	20	
Magnesium, Dissolved	ug/L	35700	10000	10000	44100	44700	84	90	75-125	1	20	
Molybdenum, Dissolved	ug/L	396	1000	1000	1430	1430	103	104	75-125	1	20	
Potassium, Dissolved	ug/L	190000	10000	10000	197000	196000	72	58	75-125	1	20	P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

QC Batch: 761473
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358877001, 50358877002, 50358877003, 50358877004

METHOD BLANK: 3490098 Matrix: Water
Associated Lab Samples: 50358877001, 50358877002, 50358877003, 50358877004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	2.3	11/09/23 23:51	
Arsenic	ug/L	ND	1.0	0.075	11/10/23 15:12	
Barium	ug/L	ND	1.0	0.077	11/09/23 23:51	
Cobalt	ug/L	ND	1.0	0.046	11/09/23 23:51	
Manganese	ug/L	ND	1.0	0.17	11/09/23 23:51	
Selenium	ug/L	ND	1.0	0.20	11/09/23 23:51	

LABORATORY CONTROL SAMPLE: 3490099

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	419	105	80-120	
Arsenic	ug/L	40	38.9	97	80-120	
Barium	ug/L	40	38.7	97	80-120	
Cobalt	ug/L	40	41.4	104	80-120	
Manganese	ug/L	40	41.3	103	80-120	
Selenium	ug/L	40	39.2	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3490100 3490101

Parameter	Units	50358888001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	ND	400	400	395	400	98	99	75-125	1	20	
Arsenic	ug/L	3.8	40	40	41.1	40.6	93	92	75-125	1	20	
Barium	ug/L	58.5	40	40	98.3	96.0	100	94	75-125	2	20	
Cobalt	ug/L	ND	40	40	39.4	39.4	97	96	75-125	0	20	
Manganese	ug/L	5070	40	40	5250	5170	448	241	75-125	2	20	P6
Selenium	ug/L	ND	40	40	39.6	38.4	99	96	75-125	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3490102 3490103

Parameter	Units	50358895001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	ND	400	400	396	397	98	98	75-125	0	20	
Arsenic	ug/L	3.9	40	40	42.3	41.1	96	93	75-125	3	20	
Barium	ug/L	58.1	40	40	98.0	96.5	100	96	75-125	2	20	
Cobalt	ug/L	ND	40	40	39.9	39.5	98	97	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3490102 3490103

Parameter	Units	50358895001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese	ug/L	4880	40	40	4980	4910	262	77	75-125	1	20	E,P6
Selenium	ug/L	ND	40	40	39.2	39.4	98	98	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

QC Batch: 761472
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358877001, 50358877002, 50358877003, 50358877004

METHOD BLANK: 3490090 Matrix: Water
Associated Lab Samples: 50358877001, 50358877002, 50358877003, 50358877004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	4.4	11/09/23 03:55	
Manganese, Dissolved	ug/L	ND	1.0	0.043	11/09/23 03:55	

LABORATORY CONTROL SAMPLE: 3490091

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	387	97	80-120	
Manganese, Dissolved	ug/L	40	37.9	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3490092 3490093

Parameter	Units	50358888001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	416	421	104	105	75-125	1	20	
Manganese, Dissolved	ug/L	5110	40	40	5010	5020	-255	-220	75-125	0	20	P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

QC Batch: 761693
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358877001, 50358877002, 50358877003, 50358877004

METHOD BLANK: 3491261 Matrix: Water
Associated Lab Samples: 50358877001, 50358877002, 50358877003, 50358877004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/08/23 22:51	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/08/23 22:51	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/08/23 22:51	

LABORATORY CONTROL SAMPLE: 3491262

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.6	97	90-110	

SAMPLE DUPLICATE: 3491263

Parameter	Units	50358877001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	214	219	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	214	219	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3491264

Parameter	Units	50358888001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	386	394	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	386	394	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

QC Batch: 762152 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358877001, 50358877002, 50358877003, 50358877004

METHOD BLANK: 3493607 Matrix: Water
Associated Lab Samples: 50358877001, 50358877002, 50358877003, 50358877004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/10/23 17:36	

LABORATORY CONTROL SAMPLE: 3493608

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	299	100	80-120	

SAMPLE DUPLICATE: 3493609

Parameter	Units	50358888001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2340	2430	4	10	

SAMPLE DUPLICATE: 3493610

Parameter	Units	50358895001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2380	2430	2	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

QC Batch: 762945
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358877001, 50358877002, 50358877003

SAMPLE DUPLICATE: 3496910

Parameter	Units	50358484008 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.4	7.5	1	2	H3

SAMPLE DUPLICATE: 3496911

Parameter	Units	50358877003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.2	7.3	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

QC Batch: 763419
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50358877004

SAMPLE DUPLICATE: 3499381

Parameter	Units	50358769004 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.1	0	2	H3

SAMPLE DUPLICATE: 3499382

Parameter	Units	50358895001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.2	7.2	0	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

QC Batch: 761826
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358877001, 50358877002, 50358877003, 50358877004

METHOD BLANK: 3491779 Matrix: Water
Associated Lab Samples: 50358877001, 50358877002, 50358877003, 50358877004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/09/23 11:58	

LABORATORY CONTROL SAMPLE: 3491780

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.53	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3491781 3491782

Parameter	Units	50358888001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.29	0.29	54	55	90-110	1	20	M3

MATRIX SPIKE SAMPLE: 3491783

Parameter	Units	50358828001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.42	79	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

QC Batch: 762089
QC Batch Method: HACH 8146
Analysis Method: HACH 8146
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358877001, 50358877002, 50358877003, 50358877004

METHOD BLANK: 3493307 Matrix: Water
Associated Lab Samples: 50358877001, 50358877002, 50358877003, 50358877004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/10/23 13:59	H3,N2

LABORATORY CONTROL SAMPLE: 3493308

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	101	90-110	H3,N2

MATRIX SPIKE SAMPLE: 3493309

Parameter	Units	50359039002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.1	106	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3493310 3493311

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	2.4	25	25	27.0	27.3	99	100	90-110	1	20	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

QC Batch: 761438
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358877001, 50358877002, 50358877003, 50358877004

METHOD BLANK: 3490021 Matrix: Water
Associated Lab Samples: 50358877001, 50358877002, 50358877003, 50358877004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/07/23 23:16	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/07/23 23:16	

LABORATORY CONTROL SAMPLE: 3490022

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.1	107	90-110	
Nitrogen, Nitrite	mg/L	1	1.1	106	90-110	

MATRIX SPIKE SAMPLE: 3490023

Parameter	Units	50358877003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	2.5	1	3.5	107	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.1	105	90-110	

MATRIX SPIKE SAMPLE: 3490024

Parameter	Units	50358888001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	0.92	91	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	103	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

QC Batch: 763329
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358877001, 50358877002, 50358877003, 50358877004

METHOD BLANK: 3498741 Matrix: Water
Associated Lab Samples: 50358877001, 50358877002, 50358877003, 50358877004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	11/17/23 13:04	

LABORATORY CONTROL SAMPLE: 3498742

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498743 3498744

Parameter	Units	50358877004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	0.39			1.9	1.9				1		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

QC Batch: 763365
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358877001, 50358877002, 50358877003, 50358877004

METHOD BLANK: 3498916 Matrix: Water
Associated Lab Samples: 50358877001, 50358877002, 50358877003, 50358877004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	11/18/23 01:34	

LABORATORY CONTROL SAMPLE: 3498917

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.3	93	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498918 3498919

Parameter	Units	50358769013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	2.0	10	10	10.5	10.4	85	84	80-120	1	20	

MATRIX SPIKE SAMPLE: 3498920

Parameter	Units	50358877001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.0	10	10.5	94	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

QC Batch: 763582 | Analysis Method: SM 5310C
QC Batch Method: SM 5310C | Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358877001, 50358877002, 50358877003, 50358877004

METHOD BLANK: 3500180 Matrix: Water
Associated Lab Samples: 50358877001, 50358877002, 50358877003, 50358877004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	11/17/23 17:43	

LABORATORY CONTROL SAMPLE: 3500181

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3500182 3500183

Parameter	Units	50358888001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	4.8	10	10	13.8	13.8	90	90	80-120	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3500184 3500185

Parameter	Units	50358928006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	4.3	10	10	12.8	12.9	85	86	80-120	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

Sample: MW-41A **Lab ID: 50358877001** Collected: 11/06/23 11:10 Received: 11/07/23 12:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0826 ± 0.344 (0.655) C:NA T:86%**	pCi/L	12/04/23 11:49	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.591 ± 0.354 (0.638) C:76% T:86%**	pCi/L	11/22/23 12:56	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.674 ± 0.698 (1.29)**	pCi/L	12/04/23 16:26	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

Sample: MW-41I **Lab ID: 50358877002** Collected: 11/06/23 12:00 Received: 11/07/23 12:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.226 ± 0.267 (0.420) C:NA T:81%**	pCi/L	12/04/23 11:49	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.237 ± 0.316 (0.672) C:82% T:81%**	pCi/L	11/22/23 12:56	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.463 ± 0.583 (1.09)**	pCi/L	12/04/23 16:26	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

Sample: MW-41B **Lab ID: 50358877003** Collected: 11/06/23 13:25 Received: 11/07/23 12:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.181 ± 0.416 (0.881) C:NA T:79%**	pCi/L	12/04/23 11:49	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.621 ± 0.385 (0.713) C:85% T:79%**	pCi/L	11/22/23 12:56	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.621 ± 0.801 (1.59)**	pCi/L	12/04/23 16:26	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

Sample: MW-36I **Lab ID: 50358877004** Collected: 11/06/23 16:04 Received: 11/07/23 12:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.128 ± 0.278 (0.641) C:NA T:85%**	pCi/L	12/04/23 11:49	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.320 ± 0.345 (0.717) C:80% T:85%**	pCi/L	11/22/23 12:56	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.320 ± 0.623 (1.36)**	pCi/L	12/04/23 16:26	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

QC Batch: 629393
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50358877001, 50358877002, 50358877003, 50358877004

METHOD BLANK: 3068351 Matrix: Water
Associated Lab Samples: 50358877001, 50358877002, 50358877003, 50358877004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.145 ± 0.284 (0.520) C:NA T:80%	pCi/L	12/04/23 11:37	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

QC Batch: 629394
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50358877001, 50358877002, 50358877003, 50358877004

METHOD BLANK: 3068352 Matrix: Water
Associated Lab Samples: 50358877001, 50358877002, 50358877003, 50358877004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.663 ± 0.390 (0.706) C:80% T:80%	pCi/L	11/22/23 12:58	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50358877001	**MW-41A**	EPA 9056	762350		
50358877002	**MW-41I**	EPA 9056	762350		
50358877003	**MW-41B**	EPA 9056	762350		
50358877004	**MW-36I**	EPA 9056	762350		
50358877001	**MW-41A**	EPA 3010	761794	EPA 6010	763114
50358877002	**MW-41I**	EPA 3010	761794	EPA 6010	763114
50358877003	**MW-41B**	EPA 3010	761794	EPA 6010	763114
50358877004	**MW-36I**	EPA 3010	761794	EPA 6010	763114
50358877001	**MW-41A**	EPA 3010	762441	EPA 6010	763062
50358877002	**MW-41I**	EPA 3010	762441	EPA 6010	763062
50358877003	**MW-41B**	EPA 3010	762441	EPA 6010	763062
50358877004	**MW-36I**	EPA 3010	762441	EPA 6010	763062
50358877001	**MW-41A**	EPA 200.2	761473	EPA 6020	761728
50358877002	**MW-41I**	EPA 200.2	761473	EPA 6020	761728
50358877003	**MW-41B**	EPA 200.2	761473	EPA 6020	761728
50358877004	**MW-36I**	EPA 200.2	761473	EPA 6020	761728
50358877001	**MW-41A**	EPA 200.2	761472	EPA 6020	761724
50358877002	**MW-41I**	EPA 200.2	761472	EPA 6020	761724
50358877003	**MW-41B**	EPA 200.2	761472	EPA 6020	761724
50358877004	**MW-36I**	EPA 200.2	761472	EPA 6020	761724
50358877001	**MW-41A**	EPA 903.1	629393		
50358877002	**MW-41I**	EPA 903.1	629393		
50358877003	**MW-41B**	EPA 903.1	629393		
50358877004	**MW-36I**	EPA 903.1	629393		
50358877001	**MW-41A**	EPA 904.0	629394		
50358877002	**MW-41I**	EPA 904.0	629394		
50358877003	**MW-41B**	EPA 904.0	629394		
50358877004	**MW-36I**	EPA 904.0	629394		
50358877001	**MW-41A**	Total Radium Calculation	633674		
50358877002	**MW-41I**	Total Radium Calculation	633674		
50358877003	**MW-41B**	Total Radium Calculation	633674		
50358877004	**MW-36I**	Total Radium Calculation	633674		
50358877001	**MW-41A**	SM 2320B	761693		
50358877002	**MW-41I**	SM 2320B	761693		
50358877003	**MW-41B**	SM 2320B	761693		
50358877004	**MW-36I**	SM 2320B	761693		
50358877001	**MW-41A**	SM 2540C	762152		
50358877002	**MW-41I**	SM 2540C	762152		
50358877003	**MW-41B**	SM 2540C	762152		
50358877004	**MW-36I**	SM 2540C	762152		
50358877001	**MW-41A**	SM 4500-H+B	762945		
50358877002	**MW-41I**	SM 4500-H+B	762945		
50358877003	**MW-41B**	SM 4500-H+B	762945		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50358877

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50358877004	**MW-36I**	SM 4500-H+B	763419		
50358877001	**MW-41A**	SM 4500-S2-D	761826		
50358877002	**MW-41I**	SM 4500-S2-D	761826		
50358877003	**MW-41B**	SM 4500-S2-D	761826		
50358877004	**MW-36I**	SM 4500-S2-D	761826		
50358877001	**MW-41A**	HACH 8146	762089		
50358877002	**MW-41I**	HACH 8146	762089		
50358877003	**MW-41B**	HACH 8146	762089		
50358877004	**MW-36I**	HACH 8146	762089		
50358877001	**MW-41A**	EPA 353.2	761438		
50358877002	**MW-41I**	EPA 353.2	761438		
50358877003	**MW-41B**	EPA 353.2	761438		
50358877004	**MW-36I**	EPA 353.2	761438		
50358877001	**MW-41A**	EPA 365.1	763329	EPA 365.1	763479
50358877002	**MW-41I**	EPA 365.1	763329	EPA 365.1	763479
50358877003	**MW-41B**	EPA 365.1	763329	EPA 365.1	763479
50358877004	**MW-36I**	EPA 365.1	763329	EPA 365.1	763479
50358877001	**MW-41A**	SM 5310C	763365		
50358877002	**MW-41I**	SM 5310C	763365		
50358877003	**MW-41B**	SM 5310C	763365		
50358877004	**MW-36I**	SM 5310C	763365		
50358877001	**MW-41A**	SM 5310C	763582		
50358877002	**MW-41I**	SM 5310C	763582		
50358877003	**MW-41B**	SM 5310C	763582		
50358877004	**MW-36I**	SM 5310C	763582		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUS

The Chain-of-Custody is a ... rately.

WO# : 50358877

50358877

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Sectio Invoic	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attentio	
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P4R4 Nov 2023	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:		Pace Profile #:	10498/53

Regulatory Agency
State / Location
IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO2, NO3 Wet	(Br, Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered** (Y)	Alkalinity*, Ferrous Iron, pH	TOC by 5310C	DOC by 5310C (Y)	Sulfide	Phosphate	Rad-226/228 + Sum			Residual Chlorine (Y/N)	
1	MW41A		WT	G			11-6	11:10		11	✓	✓	✓		✓					✓	✓	✓	/	/	/	/	/	/	/			001
2	MW41I		WT	G			11-6	12:00		11	✓	✓	✓		✓					✓	✓	/	/	/	/	/	/	/	/			002
3	MW41B		WT	G			11-6	13:25		11	✓	✓	✓		✓					✓	✓	/	/	/	/	/	/	/	/			003
4	MW36I		WT	G			11-6	16:04		11	4	2	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓	/			004
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
* Metals: 6010 (B, Cd, Fe, Pb, Mo, Ca, Mg, Na, K, Li, sila) (11)	Hayley Tolles/ATLAS	11-7	1400	Jax Williams	11-7	9:10				
6020 (Al, Mn, Co, As, Se, Ba) (6)	Jax Williams	11-7	12:15	[signature]	11/7/25	1215	0.8	Y	Y	Y
** Dissolved FF 6010 (B, Fe, Mo, Mg, K, Li) (6) FF 6020 (Al, Mn) (2)							0.9			
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Hayley Tolles

SIGNATURE of SAMPLER: [signature] DATE Signed: 11-6-23

Carson Clauser Carson Clauser 11/6/23

F-IN-Q-290-rev.23, 26Jun2023

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 11/07/23 1340 JH

1. **Courier:** ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☐ Yes ☐ No

(If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A (B) C D E F G H

4. **Cooler Temperature(s):** 0.8/0.8 | 0.9/0.9 | | |
(Initial/Corrected) **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**

5. **Packing Material:** ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓
Short Hold Time Analysis (48 hours or less)? **Analysis:** Nitrates	✓	
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 1735	
Rush TAT Requested (4 days or less):		✓
Custody Signatures Present?	✓	
Containers Intact?:	✓	
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓	
Extra labels on Terracore Vials? (soils only)		✓

	Yes	No	N/A
All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
	Present	Absent	N/A
Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Headspace Wisconsin Sulfide?			✓
	Present	Absent	No VOA Vials Sent
Headspace in VOA Vials (>6mm): See Containter Count form for details			✓
Trip Blank Present?		✓	
Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 **of** 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																2		2									WT	✓	✓		✓
2																												✓	✓		✓
3																												✓	✓		✓
4																												✓	✓		✓
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 07, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358880

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 07, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358880

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358880

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50358880001	**MW-29A**	Water	11/06/23 13:20	11/07/23 12:15

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358880

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50358880001	**MW-29A**	EPA 9056	ADM	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	ELK	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	DMT	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358880

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50358880001	**MW-29A**					
EPA 9056	Bromide	1.0	mg/L	0.050	11/12/23 05:44	
EPA 9056	Chloride	28.8	mg/L	2.5	11/12/23 06:02	
EPA 9056	Sulfate	409	mg/L	2.5	11/12/23 06:02	
EPA 6010	Boron	4700	ug/L	100	11/15/23 14:23	
EPA 6010	Calcium	228000	ug/L	2000	11/15/23 15:34	
EPA 6010	Iron	5560	ug/L	100	11/15/23 14:23	
EPA 6010	Magnesium	39500	ug/L	1000	11/15/23 14:23	
EPA 6010	Molybdenum	75.0	ug/L	10.0	11/15/23 14:23	
EPA 6010	Potassium	2330	ug/L	1000	11/15/23 14:23	
EPA 6010	Silica	12900	ug/L	450	11/15/23 14:23	N2
EPA 6010	Sodium	15700	ug/L	1000	11/15/23 14:23	
EPA 6010	Boron, Dissolved	4790	ug/L	100	11/15/23 11:50	
EPA 6010	Iron, Dissolved	5480	ug/L	100	11/15/23 11:50	
EPA 6010	Magnesium, Dissolved	36900	ug/L	1000	11/15/23 11:50	
EPA 6010	Molybdenum, Dissolved	75.2	ug/L	10.0	11/15/23 11:50	
EPA 6010	Potassium, Dissolved	2420	ug/L	1000	11/15/23 11:50	
EPA 6020	Aluminum	45.5	ug/L	10.0	11/10/23 16:54	
EPA 6020	Barium	29.4	ug/L	1.0	11/10/23 00:32	
EPA 6020	Manganese	1200	ug/L	10.0	11/10/23 15:32	
EPA 6020	Manganese, Dissolved	1170	ug/L	10.0	11/09/23 06:23	
EPA 903.1	Radium-226	0.821 ± 0.607 (0.822) C:NA T:82%	pCi/L		12/01/23 12:18	
EPA 904.0	Radium-228	0.629 ± 0.401 (0.749) C:86% T:82%	pCi/L		11/22/23 11:48	
Total Radium Calculation	Total Radium	1.45 ± 1.01 (1.57)	pCi/L		12/04/23 13:53	
SM 2320B	Alkalinity, Total as CaCO3	291	mg/L	10.0	11/08/23 22:51	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	291	mg/L	10.0	11/08/23 22:51	
SM 2540C	Total Dissolved Solids	882	mg/L	10.0	11/11/23 15:16	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	11/16/23 16:43	H3
EPA 365.1	Phosphate as P04	0.49	mg/L	0.15	11/17/23 13:13	
SM 5310C	Total Organic Carbon	1.4	mg/L	1.0	11/15/23 20:16	
SM 5310C	Dissolved Organic Carbon	2.1	mg/L	1.0	11/17/23 18:50	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358880

Sample: MW-29A **Lab ID: 50358880001** Collected: 11/06/23 13:20 Received: 11/07/23 12:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**1.0**	mg/L	0.050	0.0090	1		11/12/23 05:44	24959-67-9	
Chloride	**28.8**	mg/L	2.5	0.67	10		11/12/23 06:02	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/12/23 05:44	16984-48-8	
Sulfate	**409**	mg/L	2.5	1.9	10		11/12/23 06:02	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**4700**	ug/L	100	11.4	1	11/09/23 20:47	11/15/23 14:23	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/09/23 20:47	11/15/23 14:23	7440-43-9	
Calcium	**228000**	ug/L	2000	113	2	11/09/23 20:47	11/15/23 15:34	7440-70-2	
Iron	**5560**	ug/L	100	18.1	1	11/09/23 20:47	11/15/23 14:23	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/09/23 20:47	11/15/23 14:23	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/09/23 20:47	11/15/23 14:23	7439-93-2	
Magnesium	**39500**	ug/L	1000	32.8	1	11/09/23 20:47	11/15/23 14:23	7439-95-4	
Molybdenum	**75.0**	ug/L	10.0	1.1	1	11/09/23 20:47	11/15/23 14:23	7439-98-7	
Potassium	**2330**	ug/L	1000	120	1	11/09/23 20:47	11/15/23 14:23	7440-09-7	
Silica	**12900**	ug/L	450		1	11/09/23 20:47	11/15/23 14:23	7631-86-9	N2
Sodium	**15700**	ug/L	1000	48.2	1	11/09/23 20:47	11/15/23 14:23	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**4790**	ug/L	100	6.2	1	11/13/23 16:22	11/15/23 11:50	7440-42-8	
Iron, Dissolved	**5480**	ug/L	100	30.0	1	11/13/23 16:22	11/15/23 11:50	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/13/23 16:22	11/15/23 11:50	7439-93-2	
Magnesium, Dissolved	**36900**	ug/L	1000	33.6	1	11/13/23 16:22	11/15/23 11:50	7439-95-4	
Molybdenum, Dissolved	**75.2**	ug/L	10.0	0.78	1	11/13/23 16:22	11/15/23 11:50	7439-98-7	
Potassium, Dissolved	**2420**	ug/L	1000	97.8	1	11/13/23 16:22	11/15/23 11:50	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**45.5**	ug/L	10.0	2.3	1	11/08/23 15:12	11/10/23 16:54	7429-90-5	
Arsenic	ND	ug/L	1.0	0.075	1	11/08/23 15:12	11/10/23 16:54	7440-38-2	
Barium	**29.4**	ug/L	1.0	0.077	1	11/08/23 15:12	11/10/23 00:32	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/08/23 15:12	11/10/23 00:32	7440-48-4	
Manganese	**1200**	ug/L	10.0	1.7	10	11/08/23 15:12	11/10/23 15:32	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	11/08/23 15:12	11/10/23 00:32	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	11/08/23 15:12	11/09/23 04:26	7429-90-5	
Manganese, Dissolved	**1170**	ug/L	10.0	0.43	10	11/08/23 15:12	11/09/23 06:23	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358880

Sample: MW-29A **Lab ID: 50358880001** Collected: 11/06/23 13:20 Received: 11/07/23 12:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**291**	mg/L	10.0	10.0	1		11/08/23 22:51		
Alkalinity,Bicarbonate (CaCO3)	**291**	mg/L	10.0	10.0	1		11/08/23 22:51		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/08/23 22:51		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**882**	mg/L	10.0	10.0	1		11/11/23 15:16		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		11/16/23 16:43		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/09/23 11:58	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/10/23 14:02	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/07/23 23:25	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/07/23 23:25	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.49**	mg/L	0.15	0.15	1	11/16/23 11:00	11/17/23 13:13		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.4**	mg/L	1.0	0.24	1		11/15/23 20:16	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.1**	mg/L	1.0	0.24	1		11/17/23 18:50		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358880

QC Batch: 762350
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358880001

METHOD BLANK: 3494753 Matrix: Water
Associated Lab Samples: 50358880001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	11/11/23 16:40	
Chloride	mg/L	ND	0.25	0.067	11/11/23 16:40	
Fluoride	mg/L	ND	0.10	0.017	11/11/23 16:40	
Sulfate	mg/L	ND	0.25	0.19	11/11/23 16:40	

LABORATORY CONTROL SAMPLE: 3494754

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.98	98	80-120	
Chloride	mg/L	2.5	2.3	93	80-120	
Fluoride	mg/L	1	0.94	94	80-120	
Sulfate	mg/L	5	4.8	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3494755 3494756

Parameter	Units	50358888001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	0.67	1	1	1.6	1.6	96	97	80-120	0	15	
Chloride	mg/L	40.6	25	25	64.4	64.3	95	95	80-120	0	15	
Fluoride	mg/L	0.11	1	1	1.1	1.1	98	99	80-120	1	15	
Sulfate	mg/L	1200	500	500	1700	1670	99	93	80-120	2	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358880

QC Batch: 761794
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358880001

METHOD BLANK: 3491668 Matrix: Water
Associated Lab Samples: 50358880001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	11.4	11/15/23 13:48	
Cadmium	ug/L	ND	2.0	0.74	11/15/23 13:48	
Calcium	ug/L	ND	1000	56.7	11/15/23 13:48	
Iron	ug/L	ND	100	18.1	11/15/23 13:48	
Lead	ug/L	ND	10.0	4.0	11/15/23 13:48	
Lithium	ug/L	ND	20.0	5.1	11/15/23 13:48	
Magnesium	ug/L	ND	1000	32.8	11/15/23 13:48	
Molybdenum	ug/L	ND	10.0	1.1	11/15/23 13:48	
Potassium	ug/L	ND	1000	120	11/15/23 13:48	
Silica	ug/L	ND	450		11/15/23 13:48	N2
Sodium	ug/L	ND	1000	48.2	11/15/23 13:48	

LABORATORY CONTROL SAMPLE: 3491669

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	926	93	80-120	
Cadmium	ug/L	1000	905	91	80-120	
Calcium	ug/L	10000	9240	92	80-120	
Iron	ug/L	10000	9120	91	80-120	
Lead	ug/L	1000	876	88	80-120	
Lithium	ug/L	1000	920	92	80-120	
Magnesium	ug/L	10000	9590	96	80-120	
Molybdenum	ug/L	1000	969	97	80-120	
Potassium	ug/L	10000	9010	90	80-120	
Silica	ug/L	10700	10200	96	80-120	N2
Sodium	ug/L	10000	9050	91	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3491670 3491671

Parameter	Units	50358778008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	<100	1000	1000	966	983	95	96	75-125	2	20	
Cadmium	ug/L	<2.0	1000	1000	917	932	92	93	75-125	2	20	
Calcium	ug/L	61200	10000	10000	71800	73700	105	124	75-125	3	20	
Iron	ug/L	551	10000	10000	9680	9850	91	93	75-125	2	20	
Lead	ug/L	<10.0	1000	1000	867	884	87	88	75-125	2	20	
Lithium	ug/L	<20.0	1000	1000	923	949	92	95	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358880

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3491670 3491671

Parameter	Units	50358778008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Magnesium	ug/L	26500	10000	10000	36400	37300	99	108	75-125	2	20	
Molybdenum	ug/L	<10.0	1000	1000	986	1000	99	100	75-125	2	20	
Potassium	ug/L	1260	10000	10000	10300	10600	91	93	75-125	2	20	
Silica	ug/L	14200	10700	10700	25000	25500	101	106	75-125	2	20	N2
Sodium	ug/L	5510	10000	10000	14600	14900	91	94	75-125	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3491672 3491673

Parameter	Units	50358778011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	<100	1000	1000	979	966	96	94	75-125	1	20	
Cadmium	ug/L	<2.0	1000	1000	929	927	93	93	75-125	0	20	
Calcium	ug/L	34700	10000	10000	44100	42700	93	80	75-125	3	20	
Iron	ug/L	<100	10000	10000	9400	9200	93	91	75-125	2	20	
Lead	ug/L	<10.0	1000	1000	890	888	89	89	75-125	0	20	
Lithium	ug/L	<20.0	1000	1000	936	928	93	93	75-125	1	20	
Magnesium	ug/L	9160	10000	10000	18800	18400	97	92	75-125	2	20	
Molybdenum	ug/L	<10.0	1000	1000	1000	996	100	100	75-125	1	20	
Potassium	ug/L	3930	10000	10000	13200	12800	92	89	75-125	3	20	
Silica	ug/L	10000	10700	10700	20600	20100	99	94	75-125	2	20	N2
Sodium	ug/L	5580	10000	10000	14700	14400	91	88	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358880

QC Batch: 762441
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358880001

METHOD BLANK: 3495053 Matrix: Water
Associated Lab Samples: 50358880001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	11/15/23 11:25	
Iron, Dissolved	ug/L	ND	100	30.0	11/15/23 11:25	
Lithium, Dissolved	ug/L	ND	20.0	6.8	11/15/23 11:25	
Magnesium, Dissolved	ug/L	ND	1000	33.6	11/15/23 11:25	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	11/15/23 11:25	
Potassium, Dissolved	ug/L	ND	1000	97.8	11/15/23 11:25	

LABORATORY CONTROL SAMPLE: 3495054

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	961	96	80-120	
Iron, Dissolved	ug/L	10000	9980	100	80-120	
Lithium, Dissolved	ug/L	1000	1030	103	80-120	
Magnesium, Dissolved	ug/L	10000	9710	97	80-120	
Molybdenum, Dissolved	ug/L	1000	1020	102	80-120	
Potassium, Dissolved	ug/L	10000	9970	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495055 3495056

Parameter	Units	50358888001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	4200	1000	1000	5140	5210	94	101	75-125	1	20	
Iron, Dissolved	ug/L	6900	10000	10000	16500	16700	96	98	75-125	1	20	
Lithium, Dissolved	ug/L	1090	1000	1000	2120	2150	103	105	75-125	1	20	
Magnesium, Dissolved	ug/L	35700	10000	10000	44100	44700	84	90	75-125	1	20	
Molybdenum, Dissolved	ug/L	396	1000	1000	1430	1430	103	104	75-125	1	20	
Potassium, Dissolved	ug/L	190000	10000	10000	197000	196000	72	58	75-125	1	20	P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358880

QC Batch: 761473
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358880001

METHOD BLANK: 3490098 Matrix: Water
Associated Lab Samples: 50358880001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	2.3	11/09/23 23:51	
Arsenic	ug/L	ND	1.0	0.075	11/10/23 15:12	
Barium	ug/L	ND	1.0	0.077	11/09/23 23:51	
Cobalt	ug/L	ND	1.0	0.046	11/09/23 23:51	
Manganese	ug/L	ND	1.0	0.17	11/09/23 23:51	
Selenium	ug/L	ND	1.0	0.20	11/09/23 23:51	

LABORATORY CONTROL SAMPLE: 3490099

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	419	105	80-120	
Arsenic	ug/L	40	38.9	97	80-120	
Barium	ug/L	40	38.7	97	80-120	
Cobalt	ug/L	40	41.4	104	80-120	
Manganese	ug/L	40	41.3	103	80-120	
Selenium	ug/L	40	39.2	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3490100 3490101

Parameter	Units	50358888001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	ND	400	400	395	400	98	99	75-125	1	20	
Arsenic	ug/L	3.8	40	40	41.1	40.6	93	92	75-125	1	20	
Barium	ug/L	58.5	40	40	98.3	96.0	100	94	75-125	2	20	
Cobalt	ug/L	ND	40	40	39.4	39.4	97	96	75-125	0	20	
Manganese	ug/L	5070	40	40	5250	5170	448	241	75-125	2	20	P6
Selenium	ug/L	ND	40	40	39.6	38.4	99	96	75-125	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3490102 3490103

Parameter	Units	50358895001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	ND	400	400	396	397	98	98	75-125	0	20	
Arsenic	ug/L	3.9	40	40	42.3	41.1	96	93	75-125	3	20	
Barium	ug/L	58.1	40	40	98.0	96.5	100	96	75-125	2	20	
Cobalt	ug/L	ND	40	40	39.9	39.5	98	97	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358880

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3490102 3490103

Parameter	Units	50358895001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese	ug/L	4880	40	40	4980	4910	262	77	75-125	1	20	E,P6
Selenium	ug/L	ND	40	40	39.2	39.4	98	98	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358880

QC Batch: 761472
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358880001

METHOD BLANK: 3490090 Matrix: Water
Associated Lab Samples: 50358880001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	4.4	11/09/23 03:55	
Manganese, Dissolved	ug/L	ND	1.0	0.043	11/09/23 03:55	

LABORATORY CONTROL SAMPLE: 3490091

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	387	97	80-120	
Manganese, Dissolved	ug/L	40	37.9	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3490092 3490093

Parameter	Units	50358888001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	416	421	104	105	75-125	1	20	
Manganese, Dissolved	ug/L	5110	40	40	5010	5020	-255	-220	75-125	0	20	P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358880

QC Batch: 761693
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358880001

METHOD BLANK: 3491261 Matrix: Water
Associated Lab Samples: 50358880001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/08/23 22:51	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/08/23 22:51	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/08/23 22:51	

LABORATORY CONTROL SAMPLE: 3491262

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.6	97	90-110	

SAMPLE DUPLICATE: 3491263

Parameter	Units	50358877001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	214	219	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	214	219	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3491264

Parameter	Units	50358888001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	386	394	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	386	394	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358880

QC Batch: 762356
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358880001

METHOD BLANK: 3494820 Matrix: Water
Associated Lab Samples: 50358880001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/11/23 15:15	

LABORATORY CONTROL SAMPLE: 3494821

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	264	88	80-120	

SAMPLE DUPLICATE: 3494822

Parameter	Units	50358880001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	882	894	1	10	

SAMPLE DUPLICATE: 3494823

Parameter	Units	50359265014 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2340	2270	3	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358880

QC Batch: 763419
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50358880001

SAMPLE DUPLICATE: 3499381

Parameter	Units	50358769004 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.1	0	2	H3

SAMPLE DUPLICATE: 3499382

Parameter	Units	50358895001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.2	7.2	0	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358880

QC Batch: 761826
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358880001

METHOD BLANK: 3491779 Matrix: Water
Associated Lab Samples: 50358880001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/09/23 11:58	

LABORATORY CONTROL SAMPLE: 3491780

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.53	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3491781 3491782

Parameter	Units	50358888001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.29	0.29	54	55	90-110	1	20	M3

MATRIX SPIKE SAMPLE: 3491783

Parameter	Units	50358828001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.42	79	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358880

QC Batch: 762089
QC Batch Method: HACH 8146
Analysis Method: HACH 8146
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358880001

METHOD BLANK: 3493307 Matrix: Water
Associated Lab Samples: 50358880001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/10/23 13:59	H3,N2

LABORATORY CONTROL SAMPLE: 3493308

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	101	90-110	H3,N2

MATRIX SPIKE SAMPLE: 3493309

Parameter	Units	50359039002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.1	106	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3493310 3493311

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	2.4	25	25	27.0	27.3	99	100	90-110	1	20	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358880

QC Batch: 761438
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358880001

METHOD BLANK: 3490021 Matrix: Water
Associated Lab Samples: 50358880001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/07/23 23:16	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/07/23 23:16	

LABORATORY CONTROL SAMPLE: 3490022

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.1	107	90-110	
Nitrogen, Nitrite	mg/L	1	1.1	106	90-110	

MATRIX SPIKE SAMPLE: 3490023

Parameter	Units	50358877003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	2.5	1	3.5	107	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.1	105	90-110	

MATRIX SPIKE SAMPLE: 3490024

Parameter	Units	50358888001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	0.92	91	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	103	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358880

QC Batch: 763329
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358880001

METHOD BLANK: 3498741 Matrix: Water
Associated Lab Samples: 50358880001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	11/17/23 13:04	

LABORATORY CONTROL SAMPLE: 3498742

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498743 3498744

Parameter	Units	50358877004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	0.39			1.9	1.9				1		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358880

QC Batch: 763080
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358880001

METHOD BLANK: 3497429 Matrix: Water
Associated Lab Samples: 50358880001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	11/15/23 17:02	

LABORATORY CONTROL SAMPLE: 3497430

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3497431 3497432

Parameter	Units	50358888001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	3.6	10	10	12.8	12.9	92	93	80-120	1	20	

MATRIX SPIKE SAMPLE: 3497433

Parameter	Units	50358828001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	ND	10	12.3	97	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358880

QC Batch: 763582
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358880001

METHOD BLANK: 3500180 Matrix: Water
Associated Lab Samples: 50358880001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	11/17/23 17:43	

LABORATORY CONTROL SAMPLE: 3500181

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3500182 3500183

Parameter	Units	50358888001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	4.8	10	10	13.8	13.8	90	90	80-120	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3500184 3500185

Parameter	Units	50358928006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	4.3	10	10	12.8	12.9	85	86	80-120	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358880

Sample: MW-29A **Lab ID: 50358880001** Collected: 11/06/23 13:20 Received: 11/07/23 12:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.821 ± 0.607 (0.822) C:NA T:82%**	pCi/L	12/01/23 12:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.629 ± 0.401 (0.749) C:86% T:82%**	pCi/L	11/22/23 11:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.45 ± 1.01 (1.57)**	pCi/L	12/04/23 13:53	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358880

QC Batch: 629389
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50358880001

METHOD BLANK: 3068340 Matrix: Water
Associated Lab Samples: 50358880001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.395 ± 0.313 (0.616) C:86% T:88%	pCi/L	11/22/23 11:45	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358880

QC Batch: 629387
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50358880001

METHOD BLANK: 3068339 Matrix: Water
Associated Lab Samples: 50358880001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.469 ± 0.367 (0.431) C:NA T:88%	pCi/L	12/01/23 11:52	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358880

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50358880

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50358880001	**MW-29A**	EPA 9056	762350		
50358880001	**MW-29A**	EPA 3010	761794	EPA 6010	763114
50358880001	**MW-29A**	EPA 3010	762441	EPA 6010	763062
50358880001	**MW-29A**	EPA 200.2	761473	EPA 6020	761728
50358880001	**MW-29A**	EPA 200.2	761472	EPA 6020	761724
50358880001	**MW-29A**	EPA 903.1	629387		
50358880001	**MW-29A**	EPA 904.0	629389		
50358880001	**MW-29A**	Total Radium Calculation	633600		
50358880001	**MW-29A**	SM 2320B	761693		
50358880001	**MW-29A**	SM 2540C	762356		
50358880001	**MW-29A**	SM 4500-H+B	763419		
50358880001	**MW-29A**	SM 4500-S2-D	761826		
50358880001	**MW-29A**	HACH 8146	762089		
50358880001	**MW-29A**	EPA 353.2	761438		
50358880001	**MW-29A**	EPA 365.1	763329	EPA 365.1	763479
50358880001	**MW-29A**	SM 5310C	763080		
50358880001	**MW-29A**	SM 5310C	763582		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Anal

The Chain-of-Custody is a LEGAL DOCUME

WO# : 50358880

50358880

Page 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P4R3 Nov 2023	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:		Pace Profile #:	10498/53

Regulatory Agency	
State / Location	IN

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO2, NO3 Wet	(Br, Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity*, Ferrous Iron, pH	TOC by 5310C	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum			Residual Chlorine (Y/N)	
	Requested Analysis Filtered (Y/N)																	Y/N				Y			Y							
1	MW-29A	WT	G	11/6	12:30	11/6	1:20		11	4	2	4		1																	
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
* Metals: 6010 (B, Cd, Fe, Pb, Mo, Ca, Mg, Na, K, Li, sila) (11)				Jay Williams	11-7	9:10				
6020 (Al, Mn, Co, As, Se, Ba) (6)	Jay Williams	11/7	12:15	Jay Williams	11/7/23	1215	0.4	Y	Y	Y
** Dissolved FF 6010 (B, Fe, Mo, Mg, K, Li) (6) FF 6020 (Al, Mn) (2)										
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	Carsen Clouser		
SIGNATURE of SAMPLER:	Carsen Clouser	DATE Signed:	11/6/23

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 11/07/23 1340 QA

1. **Courier:** ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A (B) C D E F G H

4. **Cooler Temperature(s):** 0.4/0.4 | | | |
(Initial/Corrected) **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**

5. **Packing Material:** ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** ~~HNO3 (<2)~~ **H2SO4 (<2)** **NaOH (>10)** **NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? **Analysis:** Nitrates	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 1739			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)		✓	Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 **of** 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1												1	1			2	1	2	1	1	1		1					WT	✓	✓		✓
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP3R	250mL Unpres. FF SO4/OH buffer
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 09, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50358885

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 07, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50358885

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50358885

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50358885001	**AP-1R**	Water	11/06/23 17:50	11/07/23 12:15

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50358885

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50358885001	**AP-1R**	EPA 9056	ADM	1	PASI-I
		EPA 6010	MTM	5	PASI-I
		EPA 6010	ELK	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 6020	DMT	2	PASI-I
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50358885

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50358885001	**AP-1R**					
EPA 9056	Bromide	6.2	mg/L	0.050	11/11/23 23:18	
EPA 6010	Iron	12600	ug/L	100	11/15/23 14:27	
EPA 6010	Magnesium	65000	ug/L	1000	11/15/23 14:27	
EPA 6010	Potassium	1460	ug/L	1000	11/15/23 14:27	
EPA 6010	Silica	24500	ug/L	450	11/15/23 14:27	N2
EPA 6010	Sodium	57100	ug/L	1000	11/15/23 14:27	
EPA 6010	Boron, Dissolved	10600	ug/L	100	11/15/23 11:53	
EPA 6010	Iron, Dissolved	12100	ug/L	100	11/15/23 11:53	
EPA 6010	Magnesium, Dissolved	61300	ug/L	1000	11/15/23 11:53	
EPA 6010	Molybdenum, Dissolved	10.9	ug/L	10.0	11/15/23 11:53	
EPA 6010	Potassium, Dissolved	1480	ug/L	1000	11/15/23 11:53	
EPA 6020	Aluminum	177	ug/L	10.0	11/10/23 17:01	
EPA 6020	Manganese	8980	ug/L	100	11/10/23 15:39	
EPA 6020	Manganese, Dissolved	8720	ug/L	50.0	11/09/23 06:30	
SM 2320B	Alkalinity, Total as CaCO3	310	mg/L	10.0	11/08/23 22:51	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	310	mg/L	10.0	11/08/23 22:51	
SM 2540C	Total Dissolved Solids	1870	mg/L	20.0	11/10/23 17:38	
HACH 8146	Iron, Ferrous	1.1	mg/L	0.50	11/10/23 14:02	H3,N2
EPA 365.1	Phosphate as P04	2.5	mg/L	0.15	11/17/23 13:45	
SM 5310C	Total Organic Carbon	2.9	mg/L	1.0	11/15/23 20:37	
SM 5310C	Dissolved Organic Carbon	3.5	mg/L	1.0	11/17/23 19:13	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50358885

Sample: AP-1R **Lab ID: 50358885001** Collected: 11/06/23 17:50 Received: 11/07/23 12:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056								
	Pace Analytical Services - Indianapolis								
Bromide	**6.2**	mg/L	0.050	0.0090	1		11/11/23 23:18	24959-67-9	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Iron	**12600**	ug/L	100	18.1	1	11/09/23 20:47	11/15/23 14:27	7439-89-6	
Magnesium	**65000**	ug/L	1000	32.8	1	11/09/23 20:47	11/15/23 14:27	7439-95-4	
Potassium	**1460**	ug/L	1000	120	1	11/09/23 20:47	11/15/23 14:27	7440-09-7	
Silica	**24500**	ug/L	450		1	11/09/23 20:47	11/15/23 14:27	7631-86-9	N2
Sodium	**57100**	ug/L	1000	48.2	1	11/09/23 20:47	11/15/23 14:27	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Boron, Dissolved	**10600**	ug/L	100	6.2	1	11/13/23 16:22	11/15/23 11:53	7440-42-8	
Iron, Dissolved	**12100**	ug/L	100	30.0	1	11/13/23 16:22	11/15/23 11:53	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/13/23 16:22	11/15/23 11:53	7439-93-2	
Magnesium, Dissolved	**61300**	ug/L	1000	33.6	1	11/13/23 16:22	11/15/23 11:53	7439-95-4	
Molybdenum, Dissolved	**10.9**	ug/L	10.0	0.78	1	11/13/23 16:22	11/15/23 11:53	7439-98-7	
Potassium, Dissolved	**1480**	ug/L	1000	97.8	1	11/13/23 16:22	11/15/23 11:53	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Aluminum	**177**	ug/L	10.0	2.3	1	11/08/23 15:12	11/10/23 17:01	7429-90-5	
Manganese	**8980**	ug/L	100	16.8	100	11/08/23 15:12	11/10/23 15:39	7439-96-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	11/08/23 15:12	11/09/23 04:33	7429-90-5	
Manganese, Dissolved	**8720**	ug/L	50.0	2.2	50	11/08/23 15:12	11/09/23 06:30	7439-96-5	
2320B Alkalinity	Analytical Method: SM 2320B								
	Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**310**	mg/L	10.0	10.0	1		11/08/23 22:51		
Alkalinity,Bicarbonate (CaCO3)	**310**	mg/L	10.0	10.0	1		11/08/23 22:51		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/08/23 22:51		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
	Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1870**	mg/L	20.0	20.0	1		11/10/23 17:38		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D								
	Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/09/23 11:58	18496-25-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50358885

Sample: AP-1R **Lab ID: 50358885001** Collected: 11/06/23 17:50 Received: 11/07/23 12:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**1.1**	mg/L	0.50	0.088	2.5		11/10/23 14:02	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/07/23 23:42	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/07/23 23:42	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**2.5**	mg/L	0.15	0.15	1	11/16/23 15:00	11/17/23 13:45		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**2.9**	mg/L	1.0	0.24	1		11/15/23 20:37	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.5**	mg/L	1.0	0.24	1		11/17/23 19:13		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50358885

QC Batch: 762350
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358885001

METHOD BLANK: 3494753 Matrix: Water
Associated Lab Samples: 50358885001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	11/11/23 16:40	

LABORATORY CONTROL SAMPLE: 3494754

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.98	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3494755 3494756

Parameter	Units	50358888001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	0.67	1	1	1.6	1.6	96	97	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50358885

QC Batch: 761794
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50358885001

METHOD BLANK: 3491668 Matrix: Water
Associated Lab Samples: 50358885001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron	ug/L	ND	100	18.1	11/15/23 13:48	
Magnesium	ug/L	ND	1000	32.8	11/15/23 13:48	
Potassium	ug/L	ND	1000	120	11/15/23 13:48	
Silica	ug/L	ND	450		11/15/23 13:48	N2
Sodium	ug/L	ND	1000	48.2	11/15/23 13:48	

LABORATORY CONTROL SAMPLE: 3491669

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	10000	9120	91	80-120	
Magnesium	ug/L	10000	9590	96	80-120	
Potassium	ug/L	10000	9010	90	80-120	
Silica	ug/L	10700	10200	96	80-120	N2
Sodium	ug/L	10000	9050	91	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3491670 3491671

Parameter	Units	50358778008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	ug/L	551	10000	10000	9680	9850	91	93	75-125	2	20	
Magnesium	ug/L	26500	10000	10000	36400	37300	99	108	75-125	2	20	
Potassium	ug/L	1260	10000	10000	10300	10600	91	93	75-125	2	20	
Silica	ug/L	14200	10700	10700	25000	25500	101	106	75-125	2	20	N2
Sodium	ug/L	5510	10000	10000	14600	14900	91	94	75-125	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3491672 3491673

Parameter	Units	50358778011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	ug/L	<100	10000	10000	9400	9200	93	91	75-125	2	20	
Magnesium	ug/L	9160	10000	10000	18800	18400	97	92	75-125	2	20	
Potassium	ug/L	3930	10000	10000	13200	12800	92	89	75-125	3	20	
Silica	ug/L	10000	10700	10700	20600	20100	99	94	75-125	2	20	N2
Sodium	ug/L	5580	10000	10000	14700	14400	91	88	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50358885

QC Batch: 762441
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358885001

METHOD BLANK: 3495053 Matrix: Water
Associated Lab Samples: 50358885001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	11/15/23 11:25	
Iron, Dissolved	ug/L	ND	100	30.0	11/15/23 11:25	
Lithium, Dissolved	ug/L	ND	20.0	6.8	11/15/23 11:25	
Magnesium, Dissolved	ug/L	ND	1000	33.6	11/15/23 11:25	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	11/15/23 11:25	
Potassium, Dissolved	ug/L	ND	1000	97.8	11/15/23 11:25	

LABORATORY CONTROL SAMPLE: 3495054

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	961	96	80-120	
Iron, Dissolved	ug/L	10000	9980	100	80-120	
Lithium, Dissolved	ug/L	1000	1030	103	80-120	
Magnesium, Dissolved	ug/L	10000	9710	97	80-120	
Molybdenum, Dissolved	ug/L	1000	1020	102	80-120	
Potassium, Dissolved	ug/L	10000	9970	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495055 3495056

Parameter	Units	50358888001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	4200	1000	1000	5140	5210	94	101	75-125	1	20	
Iron, Dissolved	ug/L	6900	10000	10000	16500	16700	96	98	75-125	1	20	
Lithium, Dissolved	ug/L	1090	1000	1000	2120	2150	103	105	75-125	1	20	
Magnesium, Dissolved	ug/L	35700	10000	10000	44100	44700	84	90	75-125	1	20	
Molybdenum, Dissolved	ug/L	396	1000	1000	1430	1430	103	104	75-125	1	20	
Potassium, Dissolved	ug/L	190000	10000	10000	197000	196000	72	58	75-125	1	20	P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50358885

QC Batch: 761473
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358885001

METHOD BLANK: 3490098 Matrix: Water
Associated Lab Samples: 50358885001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	2.3	11/09/23 23:51	
Manganese	ug/L	ND	1.0	0.17	11/09/23 23:51	

LABORATORY CONTROL SAMPLE: 3490099

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	419	105	80-120	
Manganese	ug/L	40	41.3	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3490100 3490101

Parameter	Units	50358888001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	ND	400	400	395	400	98	99	75-125	1	20	
Manganese	ug/L	5070	40	40	5250	5170	448	241	75-125	2	20	P6

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3490102 3490103

Parameter	Units	50358895001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	ND	400	400	396	397	98	98	75-125	0	20	
Manganese	ug/L	4880	40	40	4980	4910	262	77	75-125	1	20	E,P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50358885

QC Batch: 761472
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358885001

METHOD BLANK: 3490090 Matrix: Water
Associated Lab Samples: 50358885001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	4.4	11/09/23 03:55	
Manganese, Dissolved	ug/L	ND	1.0	0.043	11/09/23 03:55	

LABORATORY CONTROL SAMPLE: 3490091

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	387	97	80-120	
Manganese, Dissolved	ug/L	40	37.9	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3490092 3490093

Parameter	Units	50358888001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	416	421	104	105	75-125	1	20	
Manganese, Dissolved	ug/L	5110	40	40	5010	5020	-255	-220	75-125	0	20	P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50358885

QC Batch: 761693
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358885001

METHOD BLANK: 3491261 Matrix: Water
Associated Lab Samples: 50358885001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/08/23 22:51	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/08/23 22:51	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/08/23 22:51	

LABORATORY CONTROL SAMPLE: 3491262

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.6	97	90-110	

SAMPLE DUPLICATE: 3491263

Parameter	Units	50358877001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	214	219	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	214	219	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3491264

Parameter	Units	50358888001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	386	394	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	386	394	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50358885

QC Batch: 762152
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358885001

METHOD BLANK: 3493607 Matrix: Water
Associated Lab Samples: 50358885001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/10/23 17:36	

LABORATORY CONTROL SAMPLE: 3493608

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	299	100	80-120	

SAMPLE DUPLICATE: 3493609

Parameter	Units	50358888001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2340	2430	4	10	

SAMPLE DUPLICATE: 3493610

Parameter	Units	50358895001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2380	2430	2	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50358885

QC Batch: 761826
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358885001

METHOD BLANK: 3491779 Matrix: Water
Associated Lab Samples: 50358885001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/09/23 11:58	

LABORATORY CONTROL SAMPLE: 3491780

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.53	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3491781 3491782

Parameter	Units	50358888001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.29	0.29	54	55	90-110	1	20	M3

MATRIX SPIKE SAMPLE: 3491783

Parameter	Units	50358828001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.42	79	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50358885

QC Batch: 762089
QC Batch Method: HACH 8146
Analysis Method: HACH 8146
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358885001

METHOD BLANK: 3493307 Matrix: Water
Associated Lab Samples: 50358885001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/10/23 13:59	H3,N2

LABORATORY CONTROL SAMPLE: 3493308

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	101	90-110	H3,N2

MATRIX SPIKE SAMPLE: 3493309

Parameter	Units	50359039002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.1	106	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3493310 3493311

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	2.4	25	25	27.0	27.3	99	100	90-110	1	20	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50358885

QC Batch: 761438
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358885001

METHOD BLANK: 3490021 Matrix: Water
Associated Lab Samples: 50358885001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/07/23 23:16	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/07/23 23:16	

LABORATORY CONTROL SAMPLE: 3490022

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.1	107	90-110	
Nitrogen, Nitrite	mg/L	1	1.1	106	90-110	

MATRIX SPIKE SAMPLE: 3490023

Parameter	Units	50358877003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	2.5	1	3.5	107	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.1	105	90-110	

MATRIX SPIKE SAMPLE: 3490024

Parameter	Units	50358888001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	0.92	91	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	103	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50358885

QC Batch: 763385
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358885001

METHOD BLANK: 3499128 Matrix: Water
Associated Lab Samples: 50358885001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	11/17/23 14:36	

LABORATORY CONTROL SAMPLE: 3499129

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3499130 3499131

Parameter	Units	50358885001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	2.5			4.3	4.2				1		

MATRIX SPIKE SAMPLE: 3499132

Parameter	Units	50358712001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	3.8		5.6			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50358885

QC Batch: 763080
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358885001

METHOD BLANK: 3497429 Matrix: Water
Associated Lab Samples: 50358885001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	11/15/23 17:02	

LABORATORY CONTROL SAMPLE: 3497430

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3497431 3497432

Parameter	Units	50358888001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	3.6	10	10	12.8	12.9	92	93	80-120	1	20	

MATRIX SPIKE SAMPLE: 3497433

Parameter	Units	50358828001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	ND	10	12.3	97	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50358885

QC Batch: 763582
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358885001

METHOD BLANK: 3500180 Matrix: Water
Associated Lab Samples: 50358885001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	11/17/23 17:43	

LABORATORY CONTROL SAMPLE: 3500181

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3500182 3500183

Parameter	Units	50358888001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	4.8	10	10	13.8	13.8	90	90	80-120	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3500184 3500185

Parameter	Units	50358928006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	4.3	10	10	12.8	12.9	85	86	80-120	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50358885

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50358885

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50358885001	**AP-1R**	EPA 9056	762350		
50358885001	**AP-1R**	EPA 3010	761794	EPA 6010	763114
50358885001	**AP-1R**	EPA 3010	762441	EPA 6010	763062
50358885001	**AP-1R**	EPA 200.2	761473	EPA 6020	761728
50358885001	**AP-1R**	EPA 200.2	761472	EPA 6020	761724
50358885001	**AP-1R**	SM 2320B	761693		
50358885001	**AP-1R**	SM 2540C	762152		
50358885001	**AP-1R**	SM 4500-S2-D	761826		
50358885001	**AP-1R**	HACH 8146	762089		
50358885001	**AP-1R**	EPA 353.2	761438		
50358885001	**AP-1R**	EPA 365.1	763385	EPA 365.1	763687
50358885001	**AP-1R**	SM 5310C	763080		
50358885001	**AP-1R**	SM 5310C	763582		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO# : 50358885

50358885

Pace Analytical
WWW.PACELABS.COM

/ Analytical Request Document

OCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:		Section Require		n:	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P3R4 Nov 2023	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:		Pace Profile #:	10498/52

Regulatory Agency
State / Location
IN

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test (Y/N)	Requested Analysis Filtered (Y/N): TDS/ NO2, NO3 Wet	(Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered** (Y)	Alkalinity*, Ferrous Iron, pH	TOC by 5310C	DOC by 5310C (Y)	Sulfide	Phosphate				Residual Chlorine (Y/N)	
1	AP-1R			11-6-23	1735	11-6-23	1750		9	X	X	X		X					X	X	X	X	X	X	X	X	X				
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
* Metals: 6010 Fe, Mg, Na, K, sila 6020 - Al, Mn	Josh O'B	11-7-23	9.10	Jax Williams	11/7	9.10				
** Dissolved FF 6010 (B, Fe, Mo, Li, Mg, K)	Jax Williams	11-7	12:15	Jeff Francis	11/7/23	1215	0.7	Y	Y	Y
Diss 6020 - Al, Mn										
Alkalinity = (Total , Bicarb & Carb)										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Josh O'Brian

SIGNATURE of SAMPLER: Josh O'B

DATE Signed: 11-6-23

F-IN-Q-290-rev.23, 26Jun2023

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 11/07/23 1340 JA

1. **Courier:** ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A (B) C D E F G H

4. **Cooler Temperature(s):** 0.7 | 0.7 **(Initial/Corrected)** RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓
Short Hold Time Analysis (48 hours or less)? **Analysis:** N.State	✓	
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 1868	
Rush TAT Requested (4 days or less):		✓
Custody Signatures Present?	✓	
Containers Intact?:	✓	
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓	
Extra labels on Terracore Vials? (soils only)		✓

	Yes	No	N/A
All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
	Present	Absent	N/A
Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Headspace Wisconsin Sulfide?			✓
	Present	Absent	No VOA Vials Sent
Headspace in VOA Vials (>6mm): See Containter Count form for details			✓
Trip Blank Present?		✓	
Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1												1	1				1	2	1	1	1		1					WT	✓	✓		✓
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 09, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50358898

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 07, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50358898

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50358898

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50358898001	**AP-1R**	Water	11/06/23 17:50	11/07/23 12:15

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50358898

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50358898001	**AP-1R**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	CAW	5	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50358898

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50358898001	**AP-1R**					
EPA 9056	Chloride	132	mg/L	2.5	11/15/23 11:23	
EPA 9056	Sulfate	892	mg/L	25.0	11/15/23 11:41	
EPA 6010	Boron	10600	ug/L	100	11/16/23 11:12	
EPA 6010	Calcium	422000	ug/L	5000	11/16/23 12:34	
EPA 6020	Arsenic	1.8	ug/L	1.0	11/11/23 03:09	
EPA 6020	Barium	68.4	ug/L	1.0	11/10/23 01:36	
EPA 903.1	Radium-226	-0.291 ± 0.331 (0.808) C:NA T:84%	pCi/L		12/04/23 11:49	
EPA 904.0	Radium-228	0.930 ± 0.403 (0.642) C:84% T:84%	pCi/L		11/22/23 12:56	
Total Radium Calculation	Total Radium	0.930 ± 0.734 (1.45)	pCi/L		12/04/23 16:26	
SM 2540C	Total Dissolved Solids	1870	mg/L	20.0	11/10/23 17:39	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	11/16/23 16:46	H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50358898

Sample: AP-1R **Lab ID: 50358898001** Collected: 11/06/23 17:50 Received: 11/07/23 12:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**132**	mg/L	2.5	0.67	10		11/15/23 11:23	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/15/23 11:04	16984-48-8	
Sulfate	**892**	mg/L	25.0	19.0	100		11/15/23 11:41	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**10600**	ug/L	100	11.4	1	11/09/23 21:16	11/16/23 11:12	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/09/23 21:16	11/16/23 11:12	7440-43-9	
Calcium	**422000**	ug/L	5000	284	5	11/09/23 21:16	11/16/23 12:34	7440-70-2	
Lead	ND	ug/L	10.0	4.0	1	11/09/23 21:16	11/16/23 11:12	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/09/23 21:16	11/16/23 11:12	7439-93-2	
Molybdenum	ND	ug/L	10.0	1.1	1	11/09/23 21:16	11/16/23 11:12	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Arsenic	**1.8**	ug/L	1.0	0.075	1	11/08/23 15:12	11/11/23 03:09	7440-38-2	
Barium	**68.4**	ug/L	1.0	0.077	1	11/08/23 15:12	11/10/23 01:36	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/08/23 15:12	11/10/23 01:36	7440-48-4	
Selenium	ND	ug/L	1.0	0.20	1	11/08/23 15:12	11/10/23 01:36	7782-49-2	
Thallium	ND	ug/L	1.0	0.040	1	11/08/23 15:12	11/10/23 01:36	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1870**	mg/L	20.0	20.0	1		11/10/23 17:39		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		11/16/23 16:46		H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50358898

QC Batch: 762557
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358898001

METHOD BLANK: 3495370 Matrix: Water
Associated Lab Samples: 50358898001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	11/15/23 10:27	
Fluoride	mg/L	ND	0.10	0.017	11/15/23 10:27	
Sulfate	mg/L	ND	0.25	0.19	11/15/23 10:27	

LABORATORY CONTROL SAMPLE: 3495371

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	94	80-120	
Fluoride	mg/L	1	0.98	98	80-120	
Sulfate	mg/L	5	4.8	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495372 3495373

Parameter	Units	50359053001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	3.3	2.5	2.5	5.6	5.6	91	91	80-120	0	15	
Fluoride	mg/L	0.53	1	1	1.5	1.5	102	101	80-120	0	15	
Sulfate	mg/L	1.3	5	5	6.0	6.0	94	93	80-120	1	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50358898

QC Batch: 761798
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358898001

METHOD BLANK: 3491686 Matrix: Water
Associated Lab Samples: 50358898001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	11.4	11/16/23 10:53	
Cadmium	ug/L	ND	2.0	0.74	11/16/23 10:53	
Calcium	ug/L	ND	1000	56.7	11/16/23 10:53	
Lead	ug/L	ND	10.0	4.0	11/16/23 10:53	
Lithium	ug/L	ND	20.0	5.1	11/16/23 10:53	
Molybdenum	ug/L	ND	10.0	1.1	11/16/23 10:53	

LABORATORY CONTROL SAMPLE: 3491687

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	955	95	80-120	
Cadmium	ug/L	1000	941	94	80-120	
Calcium	ug/L	10000	9880	99	80-120	
Lead	ug/L	1000	908	91	80-120	
Lithium	ug/L	1000	982	98	80-120	
Molybdenum	ug/L	1000	1000	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3491688 3491689

Parameter	Units	50358888001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	4110	1000	1000	5090	5130	97	102	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	924	934	92	93	75-125	1	20	
Calcium	ug/L	455000	10000	10000	460000	464000	51	89	75-125	1	20	E,P6
Lead	ug/L	ND	1000	1000	828	833	83	83	75-125	1	20	
Lithium	ug/L	1000	1000	1000	1930	1960	93	96	75-125	2	20	
Molybdenum	ug/L	387	1000	1000	1370	1390	98	100	75-125	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3491690 3491691

Parameter	Units	50358895001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	4240	1000	1000	5530	5120	129	88	75-125	8	20	P6
Cadmium	ug/L	ND	1000	1000	981	921	98	92	75-125	6	20	
Calcium	ug/L	500000	10000	10000	547000	498000	467	-16	75-125	9	20	P6
Lead	ug/L	ND	1000	1000	902	852	90	85	75-125	6	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50358898

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3491690 3491691

Parameter	Units	50358895001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	1040	1000	1000	2080	1950	104	91	75-125	7	20	
Molybdenum	ug/L	394	1000	1000	1450	1360	106	97	75-125	6	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50358898

QC Batch: 761473
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358898001

METHOD BLANK: 3490098 Matrix: Water
Associated Lab Samples: 50358898001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	ug/L	ND	1.0	0.075	11/10/23 15:12	
Barium	ug/L	ND	1.0	0.077	11/09/23 23:51	
Cobalt	ug/L	ND	1.0	0.046	11/09/23 23:51	
Selenium	ug/L	ND	1.0	0.20	11/09/23 23:51	
Thallium	ug/L	ND	1.0	0.040	11/09/23 23:51	

LABORATORY CONTROL SAMPLE: 3490099

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	40	38.9	97	80-120	
Barium	ug/L	40	38.7	97	80-120	
Cobalt	ug/L	40	41.4	104	80-120	
Selenium	ug/L	40	39.2	98	80-120	
Thallium	ug/L	40	41.3	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3490100 3490101

Parameter	Units	50358888001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	3.8	40	40	41.1	40.6	93	92	75-125	1	20	
Barium	ug/L	58.5	40	40	98.3	96.0	100	94	75-125	2	20	
Cobalt	ug/L	ND	40	40	39.4	39.4	97	96	75-125	0	20	
Selenium	ug/L	ND	40	40	39.6	38.4	99	96	75-125	3	20	
Thallium	ug/L	ND	40	40	41.6	41.6	104	104	75-125	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3490102 3490103

Parameter	Units	50358895001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	3.9	40	40	42.3	41.1	96	93	75-125	3	20	
Barium	ug/L	58.1	40	40	98.0	96.5	100	96	75-125	2	20	
Cobalt	ug/L	ND	40	40	39.9	39.5	98	97	75-125	1	20	
Selenium	ug/L	ND	40	40	39.2	39.4	98	98	75-125	1	20	
Thallium	ug/L	ND	40	40	41.6	41.3	104	103	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50358898

QC Batch: 762152
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50358898001

METHOD BLANK: 3493607 Matrix: Water
Associated Lab Samples: 50358898001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/10/23 17:36	

LABORATORY CONTROL SAMPLE: 3493608

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	299	100	80-120	

SAMPLE DUPLICATE: 3493609

Parameter	Units	50358888001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2340	2430	4	10	

SAMPLE DUPLICATE: 3493610

Parameter	Units	50358895001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2380	2430	2	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50358898

QC Batch: 763419
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50358898001

SAMPLE DUPLICATE: 3499381

Parameter	Units	50358769004 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.1	0	2	H3

SAMPLE DUPLICATE: 3499382

Parameter	Units	50358895001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.2	7.2	0	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50358898

Sample: AP-1R **Lab ID: 50358898001** Collected: 11/06/23 17:50 Received: 11/07/23 12:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.291 ± 0.331 (0.808) C:NA T:84%**	pCi/L	12/04/23 11:49	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.930 ± 0.403 (0.642) C:84% T:84%**	pCi/L	11/22/23 12:56	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.930 ± 0.734 (1.45)**	pCi/L	12/04/23 16:26	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50358898

QC Batch: 629393
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50358898001

METHOD BLANK: 3068351 Matrix: Water
Associated Lab Samples: 50358898001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.145 ± 0.284 (0.520) C:NA T:80%	pCi/L	12/04/23 11:37	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50358898

QC Batch: 629394
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50358898001

METHOD BLANK: 3068352 Matrix: Water
Associated Lab Samples: 50358898001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.663 ± 0.390 (0.706) C:80% T:80%	pCi/L	11/22/23 12:58	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50358898

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50358898

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50358898001	**AP-1R**	EPA 9056	762557		
50358898001	**AP-1R**	EPA 3010	761798	EPA 6010	763341
50358898001	**AP-1R**	EPA 200.2	761473	EPA 6020	761728
50358898001	**AP-1R**	EPA 903.1	629393		
50358898001	**AP-1R**	EPA 904.0	629394		
50358898001	**AP-1R**	Total Radium Calculation	633674		
50358898001	**AP-1R**	SM 2540C	762152		
50358898001	**AP-1R**	SM 4500-H+B	763419		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTO

The Chain-of-Custody is a L ately.

WO# : 50358898

50358898

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Inf	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg Nov 2023 P2R4	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:		Pace Profile #:	10498/51

Regulatory Agency	
State / Location	IN

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX	CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	Metals, Total*	TDS/pH	(Cl, F, SO4) IC	Rad-226/228 + Sum	Residual Chlorine (Y/N)
1	AP-1R	Drinking Water	DW			11-6-23	1735	11-6-23	1750		5	X		X							X	X	X	X	
2		Water	WT																						
3		Waste Water	WW																						
4		Product	P																						
5		Soil/Solid	SL																						
6		Oil	OL																						
7		Wipe	WP																						
8		Air	AR																						
9		Other	OT																						
10		Tissue	TS																						
11																									
12																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Metals* 6010: B, Pb, Mo, Cd, Ca, Li (6)	Josh O'B	11-7-23	9:10	Jay Williams	11/7	9:10				
6020: Co, As, Se, Ba, Tl (5)	Jay Williams	11-7	12:15	J Francis	11/7/23	1215	0.7	Y	Y	Y
Rad 226/228 to Pace PA										

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Josh O'Brian					
SIGNATURE of SAMPLER:	Josh O'B	DATE Signed: 11-6-23				

F-IN-Q-290-rev.23, 26Jun2023

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 11/07/23 1340 JA

1. **Courier:** ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A (B) C D E F G H

4. **Cooler Temperature(s):** 0.7/0.7 | | | |

(Initial/Corrected) **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**

5. **Packing Material:** ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** ~~HNO3~~ (<2) **H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** ~~Any~~ non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)		✓	Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																2		2	1									WT	✓			
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 07, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359026

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 08, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359026

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359026

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50359026001	**AP-2BO**	Water	11/07/23 12:00	11/08/23 10:45
50359026002	**AP-2A**	Water	11/07/23 14:42	11/08/23 10:45
50359026003	**AP-3A**	Water	11/07/23 17:30	11/08/23 10:45
50359026004	**DUP 3**	Water	11/07/23 16:25	11/08/23 10:45
50359026006	**FIELD BLANK**	Water	11/07/23 16:25	11/08/23 10:45

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359026

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50359026001	**AP-2BO**	EPA 9056	KBB	3	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	DMT	5	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	RJP	1	PASI-I
50359026002	**AP-2A**	EPA 9056	KBB	3	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	DMT	5	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	RJP	1	PASI-I
50359026003	**AP-3A**	EPA 9056	KBB	3	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	DMT	5	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	RJP	1	PASI-I
50359026004	**DUP 3**	EPA 9056	KBB	3	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	DMT	5	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	RJP	1	PASI-I
50359026006	**FIELD BLANK**	EPA 9056	KBB	3	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	DMT	5	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359026

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	RJP	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359026

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359026001	**AP-2BO**					
EPA 9056	Chloride	93.3	mg/L	2.5	11/15/23 13:12	
EPA 9056	Sulfate	1250	mg/L	25.0	11/15/23 13:29	
EPA 6010	Boron	17300	ug/L	100	11/16/23 21:04	
EPA 6010	Calcium	570000	ug/L	5000	11/16/23 21:39	
EPA 6010	Molybdenum	454	ug/L	10.0	11/16/23 21:04	
EPA 6020	Arsenic	3.4	ug/L	1.0	11/13/23 09:05	
EPA 6020	Barium	22.8	ug/L	1.0	11/13/23 09:05	
EPA 6020	Cobalt	3.0	ug/L	1.0	11/13/23 09:05	
EPA 903.1	Radium-226	1.04 ± 0.632 (0.798) C:NA T:86%	pCi/L		12/01/23 11:52	
EPA 904.0	Radium-228	0.539 ± 0.370 (0.711) C:87% T:86%	pCi/L		11/22/23 11:45	
Total Radium Calculation	Total Radium	1.58 ± 1.00 (1.51)	pCi/L		12/04/23 13:53	
SM 2540C	Total Dissolved Solids	2190	mg/L	20.0	11/13/23 15:20	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	11/19/23 23:20	H3
50359026002	**AP-2A**					
EPA 9056	Chloride	184	mg/L	2.5	11/15/23 14:02	
EPA 9056	Fluoride	0.13	mg/L	0.10	11/15/23 13:45	
EPA 9056	Sulfate	1570	mg/L	25.0	11/15/23 14:19	
EPA 6010	Boron	21600	ug/L	100	11/16/23 21:06	
EPA 6010	Calcium	690000	ug/L	5000	11/16/23 21:40	
EPA 6010	Lithium	69.6	ug/L	20.0	11/16/23 21:06	
EPA 6010	Molybdenum	779	ug/L	10.0	11/16/23 21:06	
EPA 6020	Arsenic	1580	ug/L	10.0	11/13/23 09:31	
EPA 6020	Barium	54.0	ug/L	1.0	11/13/23 09:08	
EPA 6020	Selenium	2.0	ug/L	1.0	11/13/23 09:08	
EPA 903.1	Radium-226	0.884 ± 0.609 (0.831) C:NA T:87%	pCi/L		12/01/23 11:52	
EPA 904.0	Radium-228	1.76 ± 0.536 (0.627) C:85% T:87%	pCi/L		11/22/23 11:45	
Total Radium Calculation	Total Radium	2.64 ± 1.15 (1.46)	pCi/L		12/04/23 13:53	
SM 2540C	Total Dissolved Solids	2720	mg/L	20.0	11/13/23 15:20	
SM 4500-H+B	pH at 25 Degrees C	7.0	Std. Units	0.10	11/19/23 23:33	H3
50359026003	**AP-3A**					
EPA 9056	Chloride	196	mg/L	2.5	11/15/23 15:27	
EPA 9056	Sulfate	1580	mg/L	25.0	11/15/23 15:44	
EPA 6010	Boron	28200	ug/L	100	11/16/23 21:07	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359026

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359026003	**AP-3A**					
EPA 6010	Calcium	699000	ug/L	5000	11/16/23 21:41	
EPA 6010	Molybdenum	543	ug/L	10.0	11/16/23 21:07	
EPA 6020	Arsenic	1.9	ug/L	1.0	11/13/23 09:12	
EPA 6020	Barium	33.3	ug/L	1.0	11/13/23 09:12	
EPA 903.1	Radium-226	0.550 ± 0.732 (1.23) C:NA T:79%	pCi/L		12/01/23 11:52	
EPA 904.0	Radium-228	0.626 ± 0.380 (0.698) C:86% T:79%	pCi/L		11/22/23 11:46	
Total Radium Calculation	Total Radium	1.18 ± 1.11 (1.93)	pCi/L		12/04/23 13:53	
SM 2540C	Total Dissolved Solids	2870	mg/L	20.0	11/13/23 15:20	
SM 4500-H+B	pH at 25 Degrees C	6.7	Std. Units	0.10	11/19/23 23:41	H3
50359026004	**DUP 3**					
EPA 9056	Chloride	200	mg/L	2.5	11/15/23 16:17	
EPA 9056	Sulfate	1600	mg/L	25.0	11/15/23 16:34	
EPA 6010	Boron	28500	ug/L	100	11/16/23 21:08	
EPA 6010	Calcium	705000	ug/L	5000	11/16/23 21:43	
EPA 6010	Molybdenum	543	ug/L	10.0	11/16/23 21:08	
EPA 6020	Arsenic	1.9	ug/L	1.0	11/13/23 09:15	
EPA 6020	Barium	34.0	ug/L	1.0	11/13/23 09:15	
EPA 903.1	Radium-226	0.529 ± 0.531 (0.829) C:NA T:86%	pCi/L		12/01/23 11:52	
EPA 904.0	Radium-228	1.14 ± 0.442 (0.667) C:87% T:86%	pCi/L		11/22/23 11:46	
Total Radium Calculation	Total Radium	1.67 ± 0.973 (1.50)	pCi/L		12/04/23 13:53	
SM 2540C	Total Dissolved Solids	2800	mg/L	20.0	11/13/23 15:21	
SM 4500-H+B	pH at 25 Degrees C	7.0	Std. Units	0.10	11/19/23 23:35	H3
50359026006	**FIELD BLANK**					
EPA 6020	Barium	1.5	ug/L	1.0	11/13/23 09:19	C0
EPA 903.1	Radium-226	0.304 ± 0.463 (0.797) C:NA T:79%	pCi/L		12/01/23 11:52	
EPA 904.0	Radium-228	0.560 ± 0.333 (0.600) C:93% T:79%	pCi/L		11/22/23 11:46	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359026

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359026006	**FIELD BLANK**					
Total Radium Calculation	Total Radium	0.864 ± 0.796 (1.40)	pCi/L		12/04/23 13:53	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	11/19/23 23:37	H3

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359026

Sample: AP-2BO **Lab ID: 50359026001** Collected: 11/07/23 12:00 Received: 11/08/23 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**93.3**	mg/L	2.5	0.67	10		11/15/23 13:12	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/15/23 12:55	16984-48-8	
Sulfate	**1250**	mg/L	25.0	19.0	100		11/15/23 13:29	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**17300**	ug/L	100	6.2	1	11/14/23 08:09	11/16/23 21:04	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/14/23 08:09	11/16/23 21:04	7440-43-9	
Calcium	**570000**	ug/L	5000	338	5	11/14/23 08:09	11/16/23 21:39	7440-70-2	
Lead	ND	ug/L	10.0	2.5	1	11/14/23 08:09	11/16/23 21:04	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/14/23 08:09	11/16/23 21:04	7439-93-2	
Molybdenum	**454**	ug/L	10.0	0.78	1	11/14/23 08:09	11/16/23 21:04	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Arsenic	**3.4**	ug/L	1.0	0.12	1	11/10/23 14:40	11/13/23 09:05	7440-38-2	
Barium	**22.8**	ug/L	1.0	0.065	1	11/10/23 14:40	11/13/23 09:05	7440-39-3	
Cobalt	**3.0**	ug/L	1.0	0.071	1	11/10/23 14:40	11/13/23 09:05	7440-48-4	
Selenium	ND	ug/L	1.0	0.19	1	11/10/23 14:40	11/13/23 09:05	7782-49-2	
Thallium	ND	ug/L	1.0	0.060	1	11/10/23 14:40	11/13/23 09:05	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2190**	mg/L	20.0	20.0	1		11/13/23 15:20		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		11/19/23 23:20		H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359026

Sample: AP-2A **Lab ID: 50359026002** Collected: 11/07/23 14:42 Received: 11/08/23 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**184**	mg/L	2.5	0.67	10		11/15/23 14:02	16887-00-6	
Fluoride	**0.13**	mg/L	0.10	0.017	1		11/15/23 13:45	16984-48-8	
Sulfate	**1570**	mg/L	25.0	19.0	100		11/15/23 14:19	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**21600**	ug/L	100	6.2	1	11/14/23 08:09	11/16/23 21:06	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/14/23 08:09	11/16/23 21:06	7440-43-9	
Calcium	**690000**	ug/L	5000	338	5	11/14/23 08:09	11/16/23 21:40	7440-70-2	
Lead	ND	ug/L	10.0	2.5	1	11/14/23 08:09	11/16/23 21:06	7439-92-1	
Lithium	**69.6**	ug/L	20.0	6.8	1	11/14/23 08:09	11/16/23 21:06	7439-93-2	
Molybdenum	**779**	ug/L	10.0	0.78	1	11/14/23 08:09	11/16/23 21:06	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Arsenic	**1580**	ug/L	10.0	1.2	10	11/10/23 14:40	11/13/23 09:31	7440-38-2	
Barium	**54.0**	ug/L	1.0	0.065	1	11/10/23 14:40	11/13/23 09:08	7440-39-3	
Cobalt	ND	ug/L	1.0	0.071	1	11/10/23 14:40	11/13/23 09:08	7440-48-4	
Selenium	**2.0**	ug/L	1.0	0.19	1	11/10/23 14:40	11/13/23 09:08	7782-49-2	
Thallium	ND	ug/L	1.0	0.060	1	11/10/23 14:40	11/13/23 09:08	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2720**	mg/L	20.0	20.0	1		11/13/23 15:20		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.0**	Std. Units	0.10	0.10	1		11/19/23 23:33		H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359026

Sample: AP-3A **Lab ID: 50359026003** Collected: 11/07/23 17:30 Received: 11/08/23 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056								
	Pace Analytical Services - Indianapolis								
Chloride	**196**	mg/L	2.5	0.67	10		11/15/23 15:27	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/15/23 15:10	16984-48-8	
Sulfate	**1580**	mg/L	25.0	19.0	100		11/15/23 15:44	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Boron	**28200**	ug/L	100	6.2	1	11/14/23 08:09	11/16/23 21:07	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/14/23 08:09	11/16/23 21:07	7440-43-9	
Calcium	**699000**	ug/L	5000	338	5	11/14/23 08:09	11/16/23 21:41	7440-70-2	
Lead	ND	ug/L	10.0	2.5	1	11/14/23 08:09	11/16/23 21:07	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/14/23 08:09	11/16/23 21:07	7439-93-2	
Molybdenum	**543**	ug/L	10.0	0.78	1	11/14/23 08:09	11/16/23 21:07	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Arsenic	**1.9**	ug/L	1.0	0.12	1	11/10/23 14:40	11/13/23 09:12	7440-38-2	
Barium	**33.3**	ug/L	1.0	0.065	1	11/10/23 14:40	11/13/23 09:12	7440-39-3	
Cobalt	ND	ug/L	1.0	0.071	1	11/10/23 14:40	11/13/23 09:12	7440-48-4	
Selenium	ND	ug/L	1.0	0.19	1	11/10/23 14:40	11/13/23 09:12	7782-49-2	
Thallium	ND	ug/L	1.0	0.060	1	11/10/23 14:40	11/13/23 09:12	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
	Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2870**	mg/L	20.0	20.0	1		11/13/23 15:20		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
	Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.7**	Std. Units	0.10	0.10	1		11/19/23 23:41		H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359026

Sample: DUP 3 **Lab ID: 50359026004** Collected: 11/07/23 16:25 Received: 11/08/23 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056								
	Pace Analytical Services - Indianapolis								
Chloride	**200**	mg/L	2.5	0.67	10		11/15/23 16:17	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/15/23 16:01	16984-48-8	
Sulfate	**1600**	mg/L	25.0	19.0	100		11/15/23 16:34	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Boron	**28500**	ug/L	100	6.2	1	11/14/23 08:09	11/16/23 21:08	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/14/23 08:09	11/16/23 21:08	7440-43-9	
Calcium	**705000**	ug/L	5000	338	5	11/14/23 08:09	11/16/23 21:43	7440-70-2	
Lead	ND	ug/L	10.0	2.5	1	11/14/23 08:09	11/16/23 21:08	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/14/23 08:09	11/16/23 21:08	7439-93-2	
Molybdenum	**543**	ug/L	10.0	0.78	1	11/14/23 08:09	11/16/23 21:08	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Arsenic	**1.9**	ug/L	1.0	0.12	1	11/10/23 14:40	11/13/23 09:15	7440-38-2	
Barium	**34.0**	ug/L	1.0	0.065	1	11/10/23 14:40	11/13/23 09:15	7440-39-3	
Cobalt	ND	ug/L	1.0	0.071	1	11/10/23 14:40	11/13/23 09:15	7440-48-4	
Selenium	ND	ug/L	1.0	0.19	1	11/10/23 14:40	11/13/23 09:15	7782-49-2	
Thallium	ND	ug/L	1.0	0.060	1	11/10/23 14:40	11/13/23 09:15	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
	Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2800**	mg/L	20.0	20.0	1		11/13/23 15:21		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
	Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.0**	Std. Units	0.10	0.10	1		11/19/23 23:35		H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359026

Sample: FIELD BLANK **Lab ID: 50359026006** Collected: 11/07/23 16:25 Received: 11/08/23 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056								
	Pace Analytical Services - Indianapolis								
Chloride	ND	mg/L	0.25	0.067	1		11/21/23 16:13	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/21/23 16:13	16984-48-8	
Sulfate	ND	mg/L	0.25	0.19	1		11/21/23 16:13	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Boron	ND	ug/L	100	6.2	1	11/14/23 08:09	11/16/23 21:10	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/14/23 08:09	11/16/23 21:10	7440-43-9	
Calcium	ND	ug/L	1000	67.7	1	11/14/23 08:09	11/16/23 21:10	7440-70-2	
Lead	ND	ug/L	10.0	2.5	1	11/14/23 08:09	11/16/23 21:10	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/14/23 08:09	11/16/23 21:10	7439-93-2	
Molybdenum	ND	ug/L	10.0	0.78	1	11/14/23 08:09	11/16/23 21:10	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Arsenic	ND	ug/L	1.0	0.12	1	11/10/23 14:40	11/13/23 09:19	7440-38-2	
Barium	**1.5**	ug/L	1.0	0.065	1	11/10/23 14:40	11/13/23 09:19	7440-39-3	C0
Cobalt	ND	ug/L	1.0	0.071	1	11/10/23 14:40	11/13/23 09:19	7440-48-4	
Selenium	ND	ug/L	1.0	0.19	1	11/10/23 14:40	11/13/23 09:19	7782-49-2	
Thallium	ND	ug/L	1.0	0.060	1	11/10/23 14:40	11/13/23 09:19	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
	Pace Analytical Services - Indianapolis								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		11/13/23 14:46		PL
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
	Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		11/19/23 23:37		H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359026

QC Batch: 762556
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359026001, 50359026002, 50359026003, 50359026004, 50359026006

METHOD BLANK: 3495366 Matrix: Water
Associated Lab Samples: 50359026001, 50359026002, 50359026003, 50359026004, 50359026006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	11/15/23 09:23	
Fluoride	mg/L	ND	0.10	0.017	11/15/23 09:23	
Sulfate	mg/L	ND	0.25	0.19	11/15/23 09:23	

LABORATORY CONTROL SAMPLE: 3495367

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	96	80-120	
Fluoride	mg/L	1	0.99	99	80-120	
Sulfate	mg/L	5	4.7	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495368 3495369

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	59.8	25	25	86.1	86.2	105	106	80-120	0	15	
Fluoride	mg/L	ND	1	1	0.96	0.94	95	93	80-120	2	15	
Sulfate	mg/L	1340	500	500	1840	1850	99	101	80-120	1	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359026

QC Batch: 762014
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359026001, 50359026002, 50359026003, 50359026004, 50359026006

METHOD BLANK: 3492970 Matrix: Water
Associated Lab Samples: 50359026001, 50359026002, 50359026003, 50359026004, 50359026006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	11/16/23 21:01	
Cadmium	ug/L	ND	2.0	0.60	11/16/23 21:01	
Calcium	ug/L	ND	1000	67.7	11/16/23 21:01	
Lead	ug/L	ND	10.0	2.5	11/16/23 21:01	
Lithium	ug/L	ND	20.0	6.8	11/16/23 21:01	
Molybdenum	ug/L	ND	10.0	0.78	11/16/23 21:01	

LABORATORY CONTROL SAMPLE: 3492971

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	965	97	80-120	
Cadmium	ug/L	1000	1010	101	80-120	
Calcium	ug/L	10000	10100	101	80-120	
Lead	ug/L	1000	946	95	80-120	
Lithium	ug/L	1000	1010	101	80-120	
Molybdenum	ug/L	1000	1030	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3492972 3492973

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	18900	1000	1000	19700	19200	77	36	75-125	2	20	P6
Cadmium	ug/L	ND	1000	1000	1030	1020	103	102	75-125	0	20	
Calcium	ug/L	590000	10000	10000	595000	580000	50	-97	75-125	3	20	P6
Lead	ug/L	ND	1000	1000	892	887	89	89	75-125	1	20	
Lithium	ug/L	ND	1000	1000	1030	1040	103	103	75-125	0	20	
Molybdenum	ug/L	34.9	1000	1000	1060	1060	103	102	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359026

QC Batch: 762092
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359026001, 50359026002, 50359026003, 50359026004, 50359026006

METHOD BLANK: 3493321 Matrix: Water
Associated Lab Samples: 50359026001, 50359026002, 50359026003, 50359026004, 50359026006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	ug/L	ND	1.0	0.12	11/13/23 07:29	
Barium	ug/L	ND	1.0	0.065	11/13/23 07:29	
Cobalt	ug/L	ND	1.0	0.071	11/13/23 07:29	
Selenium	ug/L	ND	1.0	0.19	11/13/23 07:29	
Thallium	ug/L	ND	1.0	0.060	11/13/23 07:29	

LABORATORY CONTROL SAMPLE: 3493322

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	40	38.2	95	80-120	
Barium	ug/L	40	41.0	103	80-120	
Cobalt	ug/L	40	39.8	100	80-120	
Selenium	ug/L	40	39.8	100	80-120	
Thallium	ug/L	40	40.5	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3493323 3493324

Parameter	Units	50359283003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	13.1	40	40	50.9	51.2	94	95	75-125	1	20	
Barium	ug/L	147	40	40	186	186	97	97	75-125	0	20	
Cobalt	ug/L	0.57J	40	40	37.0	37.5	91	92	75-125	1	20	
Selenium	ug/L	ND	40	40	38.6	38.8	96	97	75-125	0	20	
Thallium	ug/L	ND	40	40	41.4	42.0	103	105	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359026

QC Batch: 762489 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359026001, 50359026002, 50359026003, 50359026004

METHOD BLANK: 3495170 Matrix: Water
Associated Lab Samples: 50359026001, 50359026002, 50359026003, 50359026004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/13/23 15:16	

LABORATORY CONTROL SAMPLE: 3495171

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	287	96	80-120	

SAMPLE DUPLICATE: 3495172

Parameter	Units	50358941020 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1960	1890	4	10	

SAMPLE DUPLICATE: 3495173

Parameter	Units	50359026004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2800	2920	4	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359026

QC Batch: 762490
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359026006

METHOD BLANK: 3495174 Matrix: Water
Associated Lab Samples: 50359026006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/13/23 14:45	

LABORATORY CONTROL SAMPLE: 3495175

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	277	92	80-120	

SAMPLE DUPLICATE: 3495176

Parameter	Units	50359028002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2430	2350	4	10	

SAMPLE DUPLICATE: 3495177

Parameter	Units	50359053007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	430	430	0	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359026

QC Batch: 763865
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359026001, 50359026002, 50359026003, 50359026004, 50359026006

SAMPLE DUPLICATE: 3501755

Parameter	Units	50359028002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.2	7.2	1	2	H3

SAMPLE DUPLICATE: 3501756

Parameter	Units	50358941020 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.7	6.8	0	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359026

Sample: AP-2BO **Lab ID: 50359026001** Collected: 11/07/23 12:00 Received: 11/08/23 10:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.04 ± 0.632 (0.798) C:NA T:86%**	pCi/L	12/01/23 11:52	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.539 ± 0.370 (0.711) C:87% T:86%**	pCi/L	11/22/23 11:45	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.58 ± 1.00 (1.51)**	pCi/L	12/04/23 13:53	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359026

Sample: AP-2A **Lab ID: 50359026002** Collected: 11/07/23 14:42 Received: 11/08/23 10:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.884 ± 0.609 (0.831) C:NA T:87%**	pCi/L	12/01/23 11:52	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.76 ± 0.536 (0.627) C:85% T:87%**	pCi/L	11/22/23 11:45	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.64 ± 1.15 (1.46)**	pCi/L	12/04/23 13:53	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359026

Sample: AP-3A **Lab ID: 50359026003** Collected: 11/07/23 17:30 Received: 11/08/23 10:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.550 ± 0.732 (1.23) C:NA T:79%**	pCi/L	12/01/23 11:52	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.626 ± 0.380 (0.698) C:86% T:79%**	pCi/L	11/22/23 11:46	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.18 ± 1.11 (1.93)**	pCi/L	12/04/23 13:53	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359026

Sample: DUP 3 **Lab ID: 50359026004** Collected: 11/07/23 16:25 Received: 11/08/23 10:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.529 ± 0.531 (0.829) C:NA T:86%**	pCi/L	12/01/23 11:52	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.14 ± 0.442 (0.667) C:87% T:86%**	pCi/L	11/22/23 11:46	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.67 ± 0.973 (1.50)**	pCi/L	12/04/23 13:53	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359026

Sample: FIELD BLANK **Lab ID: 50359026006** Collected: 11/07/23 16:25 Received: 11/08/23 10:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.304 ± 0.463 (0.797) C:NA T:79%**	pCi/L	12/01/23 11:52	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.560 ± 0.333 (0.600) C:93% T:79%**	pCi/L	11/22/23 11:46	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.864 ± 0.796 (1.40)**	pCi/L	12/04/23 13:53	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359026

QC Batch: 629389 Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359026001, 50359026002, 50359026003, 50359026004, 50359026006

METHOD BLANK: 3068340 Matrix: Water
Associated Lab Samples: 50359026001, 50359026002, 50359026003, 50359026004, 50359026006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.395 ± 0.313 (0.616) C:86% T:88%	pCi/L	11/22/23 11:45	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359026

QC Batch: 629387 Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359026001, 50359026002, 50359026003, 50359026004, 50359026006

METHOD BLANK: 3068339 Matrix: Water
Associated Lab Samples: 50359026001, 50359026002, 50359026003, 50359026004, 50359026006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.469 ± 0.367 (0.431) C:NA T:88%	pCi/L	12/01/23 11:52	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359026

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

C0	Result confirmed by second analysis.
H3	Sample was received or analysis requested beyond the recognized method holding time.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
PL	The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359026

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359026001	**AP-2BO**	EPA 9056	762556		
50359026002	**AP-2A**	EPA 9056	762556		
50359026003	**AP-3A**	EPA 9056	762556		
50359026004	**DUP 3**	EPA 9056	762556		
50359026006	**FIELD BLANK**	EPA 9056	762556		
50359026001	**AP-2BO**	EPA 3010	762014	EPA 6010	763497
50359026002	**AP-2A**	EPA 3010	762014	EPA 6010	763497
50359026003	**AP-3A**	EPA 3010	762014	EPA 6010	763497
50359026004	**DUP 3**	EPA 3010	762014	EPA 6010	763497
50359026006	**FIELD BLANK**	EPA 3010	762014	EPA 6010	763497
50359026001	**AP-2BO**	EPA 200.2	762092	EPA 6020	762287
50359026002	**AP-2A**	EPA 200.2	762092	EPA 6020	762287
50359026003	**AP-3A**	EPA 200.2	762092	EPA 6020	762287
50359026004	**DUP 3**	EPA 200.2	762092	EPA 6020	762287
50359026006	**FIELD BLANK**	EPA 200.2	762092	EPA 6020	762287
50359026001	**AP-2BO**	EPA 903.1	629387		
50359026002	**AP-2A**	EPA 903.1	629387		
50359026003	**AP-3A**	EPA 903.1	629387		
50359026004	**DUP 3**	EPA 903.1	629387		
50359026006	**FIELD BLANK**	EPA 903.1	629387		
50359026001	**AP-2BO**	EPA 904.0	629389		
50359026002	**AP-2A**	EPA 904.0	629389		
50359026003	**AP-3A**	EPA 904.0	629389		
50359026004	**DUP 3**	EPA 904.0	629389		
50359026006	**FIELD BLANK**	EPA 904.0	629389		
50359026001	**AP-2BO**	Total Radium Calculation	633600		
50359026002	**AP-2A**	Total Radium Calculation	633600		
50359026003	**AP-3A**	Total Radium Calculation	633600		
50359026004	**DUP 3**	Total Radium Calculation	633600		
50359026006	**FIELD BLANK**	Total Radium Calculation	633600		
50359026001	**AP-2BO**	SM 2540C	762489		
50359026002	**AP-2A**	SM 2540C	762489		
50359026003	**AP-3A**	SM 2540C	762489		
50359026004	**DUP 3**	SM 2540C	762489		
50359026006	**FIELD BLANK**	SM 2540C	762490		
50359026001	**AP-2BO**	SM 4500-H+B	763865		
50359026002	**AP-2A**	SM 4500-H+B	763865		
50359026003	**AP-3A**	SM 4500-H+B	763865		
50359026004	**DUP 3**	SM 4500-H+B	763865		
50359026006	**FIELD BLANK**	SM 4500-H+B	763865		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg Nov 2023 P2R4	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:		Pace Profile #:	10498/51

Regulatory Agency:

State / Location: IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analysis Test Y/N	Metals, Total*	TDS/pH	(Cl, F, SO4) IC	Rad-226/228 + Sum	Residual Chlorine (Y/N)	SC359026
1	AP-2B0			11-7-23	1140	11-7-23	1200		5	X		X							X	X	X	X		001
2	AP-2A			11-7-23	1410	11-7-23	1442		5	X		X							X	X	X	X		002
3	AP-3A			11-7-23	1625	11-7-23	1730		5	X		X							X	X	X	X		003
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Metals* 6010: B, Pb, Mo, Cd, Ca, Li (6)	Josh O'Brian	11-8-23	800	Jax Williams	11-8	800				
6020: Co, As, Se, Ba, Tl (5)	Jax Williams	11-8	1045		11-8-23	10:45	see scan	y	N	y
Rad 226/228 to Pace PA										

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Josh O'Brian					
SIGNATURE of SAMPLER:		DATE Signed: 11-7-23				

F-IN-Q-290-rev.23, 26Jun2023

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: BC 11-9-23 12:08

1. **Courier:** ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☐ Yes ☑ No

(If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H

4. **Cooler Temperature(s):** See | Comments | | |
(Initial/Corrected) **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**

5. **Packing Material:** ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS: Temps: 0.6/0.6, 1.0/1.0, 1.5/1.5, 0.3/0.3, 0.4/0.4, 0.6/0.6, 0.5/0.5, 0.4/0.4, 0.2/0.2 Samples rcvd not on COC Dup 4 / Dup 3 / Field Blank 3 D: 11-7-23 T: 16:25 BC 11-8-23

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC									OTHER								
			MeOH (only)																											Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
			SBS																									Red	Yellow	Green	Black
			DI			VOA																										
COC Line Item	WGFU	WGKU BG1U	R	DG9H VG9H		VIAL HS >6mm	VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
1																	2		2	1									WT	✓			
2																																	
3																																	
4															004						DUP3												
5															005						DUP4												
6															006						Field Blank 3						D:11-7-23 T:16:25						
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 08, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 08, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

(Greensburg, PA) - Revision 1 - This report replaces the December 5, 2023 report. This project was revised on February 8, 2024 to include 226+228 calulcation to sample 50359028001.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50359028001	**MW-25A**	Water	11/07/23 12:15	11/08/23 10:45
50359028002	**MW-25I**	Water	11/07/23 12:15	11/08/23 10:45
50359028003	**MW-25I MS**	Water	11/07/23 15:00	11/08/23 10:45
50359028004	**MW-25I MSD**	Water	11/07/23 15:00	11/08/23 10:45

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50359028001	**MW-25A**	EPA 9056	KBB	4	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	RJP	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359028002	**MW-25I**	EPA 9056	KBB	4	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	RJP	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359028003	**MW-25I MS**	EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
50359028004	**MW-25I MSD**	EPA 903.1	MAR1	1	PASI-PA

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	JJS1	1	PASI-PA

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359028001	**MW-25A**					
EPA 9056	Bromide	0.38	mg/L	0.050	11/21/23 17:04	
EPA 9056	Chloride	52.2	mg/L	2.5	11/22/23 13:29	
EPA 9056	Sulfate	1350	mg/L	25.0	11/22/23 13:45	
EPA 6010	Boron	13200	ug/L	100	11/16/23 21:11	
EPA 6010	Calcium	501000	ug/L	5000	11/16/23 21:44	
EPA 6010	Iron	14400	ug/L	100	11/16/23 21:11	
EPA 6010	Magnesium	124000	ug/L	1000	11/16/23 21:11	
EPA 6010	Molybdenum	15.6	ug/L	10.0	11/16/23 21:11	
EPA 6010	Potassium	2040	ug/L	1000	11/16/23 21:11	
EPA 6010	Silica	15400	ug/L	450	11/16/23 21:11	N2
EPA 6010	Sodium	18200	ug/L	1000	11/16/23 21:11	
EPA 6010	Boron, Dissolved	13200	ug/L	100	11/15/23 22:29	
EPA 6010	Iron, Dissolved	14000	ug/L	100	11/15/23 22:29	
EPA 6010	Magnesium, Dissolved	127000	ug/L	1000	11/15/23 22:29	
EPA 6010	Molybdenum, Dissolved	14.8	ug/L	10.0	11/15/23 22:29	
EPA 6010	Potassium, Dissolved	2000	ug/L	1000	11/15/23 22:29	
EPA 6020	Aluminum	62.5	ug/L	10.0	11/14/23 05:38	
EPA 6020	Arsenic	1.0	ug/L	1.0	11/14/23 05:38	
EPA 6020	Barium	18.2	ug/L	1.0	11/14/23 05:38	
EPA 6020	Manganese	1720	ug/L	10.0	11/14/23 15:53	
EPA 6020	Manganese, Dissolved	1670	ug/L	20.0	11/14/23 18:52	
EPA 903.1	Radium-226	0.177 ± 0.530 (0.983) C:NA T:80%	pCi/L		12/01/23 12:06	
EPA 904.0	Radium-228	0.795 ± 0.397 (0.674) C:86% T:80%	pCi/L		11/22/23 11:47	
Total Radium Calculation	Total Radium	0.972 ± 0.927 (1.66)	pCi/L		02/08/24 11:53	
SM 2320B	Alkalinity, Total as CaCO3	161	mg/L	10.0	11/09/23 21:57	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	161	mg/L	10.0	11/09/23 21:57	
SM 2540C	Total Dissolved Solids	2690	mg/L	20.0	11/13/23 14:46	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	11/19/23 23:21	H3
HACH 8146	Iron, Ferrous	1.1	mg/L	0.50	11/10/23 14:32	H3,N2
EPA 365.1	Phosphate as P04	0.27	mg/L	0.15	11/19/23 19:21	
SM 5310C	Total Organic Carbon	1.2	mg/L	1.0	11/16/23 02:39	
SM 5310C	Dissolved Organic Carbon	4.3	mg/L	1.0	11/18/23 00:22	
50359028002	**MW-25I**					
EPA 9056	Bromide	0.56	mg/L	0.050	11/15/23 22:46	
EPA 9056	Chloride	59.8	mg/L	2.5	11/15/23 23:03	
EPA 9056	Sulfate	1340	mg/L	25.0	11/15/23 23:20	
EPA 6010	Boron	18900	ug/L	100	11/16/23 21:13	
EPA 6010	Calcium	590000	ug/L	5000	11/16/23 21:46	
EPA 6010	Iron	10200	ug/L	100	11/16/23 21:13	
EPA 6010	Magnesium	45700	ug/L	1000	11/16/23 21:13	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359028002	**MW-25I**					
EPA 6010	Molybdenum	34.9	ug/L	10.0	11/16/23 21:13	
EPA 6010	Potassium	3130	ug/L	1000	11/16/23 21:13	
EPA 6010	Silica	12300	ug/L	450	11/16/23 21:13	N2
EPA 6010	Sodium	25500	ug/L	1000	11/16/23 21:13	
EPA 6010	Boron, Dissolved	18400	ug/L	100	11/15/23 22:31	
EPA 6010	Iron, Dissolved	9900	ug/L	100	11/15/23 22:31	
EPA 6010	Magnesium, Dissolved	45800	ug/L	1000	11/15/23 22:31	
EPA 6010	Molybdenum, Dissolved	33.0	ug/L	10.0	11/15/23 22:31	
EPA 6010	Potassium, Dissolved	3060	ug/L	1000	11/15/23 22:31	
EPA 6020	Aluminum	23.5	ug/L	10.0	11/14/23 05:42	
EPA 6020	Barium	22.5	ug/L	1.0	11/14/23 05:42	
EPA 6020	Manganese	1500	ug/L	10.0	11/14/23 05:15	
EPA 6020	Manganese, Dissolved	1490	ug/L	10.0	11/11/23 01:04	
EPA 903.1	Radium-226	0.255 ± 0.559 (1.01) C:NA T:80%	pCi/L		12/01/23 12:06	
EPA 904.0	Radium-228	0.178 ± 0.328 (0.720) C:84% T:80%	pCi/L		11/22/23 11:47	
Total Radium Calculation	Total Radium	0.433 ± 0.887 (1.73)	pCi/L		12/04/23 13:53	
SM 2320B	Alkalinity, Total as CaCO3	128	mg/L	10.0	11/09/23 21:57	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	128	mg/L	10.0	11/09/23 21:57	
SM 2540C	Total Dissolved Solids	2430	mg/L	20.0	11/13/23 14:46	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	11/19/23 23:22	H3
HACH 8146	Iron, Ferrous	2.4	mg/L	0.50	11/10/23 14:33	H3,N2
EPA 365.1	Phosphate as P04	0.41	mg/L	0.15	11/19/23 19:22	
SM 5310C	Total Organic Carbon	1.2	mg/L	1.0	11/16/23 02:58	
SM 5310C	Dissolved Organic Carbon	2.0	mg/L	1.0	11/18/23 00:33	
50359028003	**MW-25I MS**					
EPA 903.1	Radium-226	96.44 %REC± NA (NA) C:NA T:NA	pCi/L		12/01/23 12:06	
EPA 904.0	Radium-228	93.66 %REC ± NA (NA) C:NA T:NA	pCi/L		11/22/23 11:47	
50359028004	**MW-25I MSD**					
EPA 903.1	Radium-226	112.56 %REC 15.42RPD ± NA (NA) C:NA T:NA	pCi/L		12/01/23 12:06	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359028004	**MW-25I MSD**					
EPA 904.0	Radium-228	94.28 %REC 0.65RPD ± NA (NA) C:NA T:NA	pCi/L		11/22/23 11:48	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

Sample: MW-25A **Lab ID: 50359028001** Collected: 11/07/23 12:15 Received: 11/08/23 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.38**	mg/L	0.050	0.0090	1		11/21/23 17:04	24959-67-9	
Chloride	**52.2**	mg/L	2.5	0.67	10		11/22/23 13:29	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/21/23 17:04	16984-48-8	
Sulfate	**1350**	mg/L	25.0	19.0	100		11/22/23 13:45	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**13200**	ug/L	100	6.2	1	11/14/23 08:09	11/16/23 21:11	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/14/23 08:09	11/16/23 21:11	7440-43-9	
Calcium	**501000**	ug/L	5000	338	5	11/14/23 08:09	11/16/23 21:44	7440-70-2	
Iron	**14400**	ug/L	100	30.0	1	11/14/23 08:09	11/16/23 21:11	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	11/14/23 08:09	11/16/23 21:11	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/14/23 08:09	11/16/23 21:11	7439-93-2	
Magnesium	**124000**	ug/L	1000	33.6	1	11/14/23 08:09	11/16/23 21:11	7439-95-4	
Molybdenum	**15.6**	ug/L	10.0	0.78	1	11/14/23 08:09	11/16/23 21:11	7439-98-7	
Potassium	**2040**	ug/L	1000	97.8	1	11/14/23 08:09	11/16/23 21:11	7440-09-7	
Silica	**15400**	ug/L	450		1	11/14/23 08:09	11/16/23 21:11	7631-86-9	N2
Sodium	**18200**	ug/L	1000	54.8	1	11/14/23 08:09	11/16/23 21:11	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**13200**	ug/L	100	11.4	1	11/14/23 08:09	11/15/23 22:29	7440-42-8	
Iron, Dissolved	**14000**	ug/L	100	18.1	1	11/14/23 08:09	11/15/23 22:29	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	11/14/23 08:09	11/15/23 22:29	7439-93-2	
Magnesium, Dissolved	**127000**	ug/L	1000	32.8	1	11/14/23 08:09	11/15/23 22:29	7439-95-4	
Molybdenum, Dissolved	**14.8**	ug/L	10.0	1.1	1	11/14/23 08:09	11/15/23 22:29	7439-98-7	
Potassium, Dissolved	**2000**	ug/L	1000	120	1	11/14/23 08:09	11/15/23 22:29	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**62.5**	ug/L	10.0	2.3	1	11/13/23 07:41	11/14/23 05:38	7429-90-5	
Arsenic	**1.0**	ug/L	1.0	0.075	1	11/13/23 07:41	11/14/23 05:38	7440-38-2	
Barium	**18.2**	ug/L	1.0	0.077	1	11/13/23 07:41	11/14/23 05:38	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/13/23 07:41	11/14/23 05:38	7440-48-4	
Manganese	**1720**	ug/L	10.0	1.7	10	11/13/23 07:41	11/14/23 15:53	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	11/13/23 07:41	11/14/23 05:38	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/10/23 07:10	11/11/23 02:51	7429-90-5	
Manganese, Dissolved	**1670**	ug/L	20.0	3.6	20	11/10/23 07:10	11/14/23 18:52	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

Sample: MW-25A **Lab ID: 50359028001** Collected: 11/07/23 12:15 Received: 11/08/23 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**161**	mg/L	10.0	10.0	1		11/09/23 21:57		
Alkalinity,Bicarbonate (CaCO3)	**161**	mg/L	10.0	10.0	1		11/09/23 21:57		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/09/23 21:57		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2690**	mg/L	20.0	20.0	1		11/13/23 14:46		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		11/19/23 23:21		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/09/23 14:48	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**1.1**	mg/L	0.50	0.088	2.5		11/10/23 14:32	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/09/23 00:05	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/09/23 00:05	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.27**	mg/L	0.15	0.15	1	11/17/23 13:00	11/19/23 19:21		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.2**	mg/L	1.0	0.24	1		11/16/23 02:39	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**4.3**	mg/L	1.0	0.24	1		11/18/23 00:22		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

Sample: MW-25I **Lab ID: 50359028002** Collected: 11/07/23 12:15 Received: 11/08/23 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.56**	mg/L	0.050	0.0090	1		11/15/23 22:46	24959-67-9	
Chloride	**59.8**	mg/L	2.5	0.67	10		11/15/23 23:03	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/15/23 22:46	16984-48-8	
Sulfate	**1340**	mg/L	25.0	19.0	100		11/15/23 23:20	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**18900**	ug/L	100	6.2	1	11/14/23 08:09	11/16/23 21:13	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/14/23 08:09	11/16/23 21:13	7440-43-9	
Calcium	**590000**	ug/L	5000	338	5	11/14/23 08:09	11/16/23 21:46	7440-70-2	
Iron	**10200**	ug/L	100	30.0	1	11/14/23 08:09	11/16/23 21:13	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	11/14/23 08:09	11/16/23 21:13	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/14/23 08:09	11/16/23 21:13	7439-93-2	
Magnesium	**45700**	ug/L	1000	33.6	1	11/14/23 08:09	11/16/23 21:13	7439-95-4	
Molybdenum	**34.9**	ug/L	10.0	0.78	1	11/14/23 08:09	11/16/23 21:13	7439-98-7	
Potassium	**3130**	ug/L	1000	97.8	1	11/14/23 08:09	11/16/23 21:13	7440-09-7	
Silica	**12300**	ug/L	450		1	11/14/23 08:09	11/16/23 21:13	7631-86-9	N2
Sodium	**25500**	ug/L	1000	54.8	1	11/14/23 08:09	11/16/23 21:13	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**18400**	ug/L	100	11.4	1	11/14/23 08:09	11/15/23 22:31	7440-42-8	
Iron, Dissolved	**9900**	ug/L	100	18.1	1	11/14/23 08:09	11/15/23 22:31	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	11/14/23 08:09	11/15/23 22:31	7439-93-2	
Magnesium, Dissolved	**45800**	ug/L	1000	32.8	1	11/14/23 08:09	11/15/23 22:31	7439-95-4	
Molybdenum, Dissolved	**33.0**	ug/L	10.0	1.1	1	11/14/23 08:09	11/15/23 22:31	7439-98-7	
Potassium, Dissolved	**3060**	ug/L	1000	120	1	11/14/23 08:09	11/15/23 22:31	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**23.5**	ug/L	10.0	2.3	1	11/13/23 07:41	11/14/23 05:42	7429-90-5	
Arsenic	ND	ug/L	1.0	0.075	1	11/13/23 07:41	11/14/23 05:42	7440-38-2	
Barium	**22.5**	ug/L	1.0	0.077	1	11/13/23 07:41	11/14/23 05:42	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/13/23 07:41	11/14/23 05:42	7440-48-4	
Manganese	**1500**	ug/L	10.0	1.7	10	11/13/23 07:41	11/14/23 05:15	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	11/13/23 07:41	11/14/23 05:42	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/10/23 07:10	11/11/23 02:55	7429-90-5	
Manganese, Dissolved	**1490**	ug/L	10.0	1.8	10	11/10/23 07:10	11/11/23 01:04	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

Sample: MW-25I **Lab ID: 50359028002** Collected: 11/07/23 12:15 Received: 11/08/23 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**128**	mg/L	10.0	10.0	1		11/09/23 21:57		
Alkalinity,Bicarbonate (CaCO3)	**128**	mg/L	10.0	10.0	1		11/09/23 21:57		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/09/23 21:57		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2430**	mg/L	20.0	20.0	1		11/13/23 14:46		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		11/19/23 23:22		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/09/23 14:48	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**2.4**	mg/L	0.50	0.088	2.5		11/10/23 14:33	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/09/23 00:07	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/09/23 00:07	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.41**	mg/L	0.15	0.15	1	11/17/23 13:00	11/19/23 19:22		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.2**	mg/L	1.0	0.24	1		11/16/23 02:58	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.0**	mg/L	1.0	0.24	1		11/18/23 00:33		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

QC Batch: 762556
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359028001, 50359028002

METHOD BLANK: 3495366 Matrix: Water
Associated Lab Samples: 50359028001, 50359028002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	11/15/23 09:23	
Chloride	mg/L	ND	0.25	0.067	11/15/23 09:23	
Fluoride	mg/L	ND	0.10	0.017	11/15/23 09:23	
Sulfate	mg/L	ND	0.25	0.19	11/15/23 09:23	

LABORATORY CONTROL SAMPLE: 3495367

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.99	99	80-120	
Chloride	mg/L	2.5	2.4	96	80-120	
Fluoride	mg/L	1	0.99	99	80-120	
Sulfate	mg/L	5	4.7	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495368 3495369

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	0.56	1	1	1.5	1.5	98	97	80-120	1	15	
Chloride	mg/L	59.8	25	25	86.1	86.2	105	106	80-120	0	15	
Fluoride	mg/L	ND	1	1	0.96	0.94	95	93	80-120	2	15	
Sulfate	mg/L	1340	500	500	1840	1850	99	101	80-120	1	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

QC Batch: 762014
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359028001, 50359028002

METHOD BLANK: 3492970 Matrix: Water
Associated Lab Samples: 50359028001, 50359028002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	11/16/23 21:01	
Cadmium	ug/L	ND	2.0	0.60	11/16/23 21:01	
Calcium	ug/L	ND	1000	67.7	11/16/23 21:01	
Iron	ug/L	ND	100	30.0	11/16/23 21:01	
Lead	ug/L	ND	10.0	2.5	11/16/23 21:01	
Lithium	ug/L	ND	20.0	6.8	11/16/23 21:01	
Magnesium	ug/L	ND	1000	33.6	11/16/23 21:01	
Molybdenum	ug/L	ND	10.0	0.78	11/16/23 21:01	
Potassium	ug/L	ND	1000	97.8	11/16/23 21:01	
Silica	ug/L	ND	450		11/16/23 21:01	N2
Sodium	ug/L	ND	1000	54.8	11/16/23 21:01	

LABORATORY CONTROL SAMPLE: 3492971

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	965	97	80-120	
Cadmium	ug/L	1000	1010	101	80-120	
Calcium	ug/L	10000	10100	101	80-120	
Iron	ug/L	10000	9840	98	80-120	
Lead	ug/L	1000	946	95	80-120	
Lithium	ug/L	1000	1010	101	80-120	
Magnesium	ug/L	10000	9670	97	80-120	
Molybdenum	ug/L	1000	1030	103	80-120	
Potassium	ug/L	10000	9890	99	80-120	
Silica	ug/L	10700	10700	100	80-120	N2
Sodium	ug/L	10000	9880	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3492972 3492973

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	18900	1000	1000	19700	19200	77	36	75-125	2	20	P6
Cadmium	ug/L	ND	1000	1000	1030	1020	103	102	75-125	0	20	
Calcium	ug/L	590000	10000	10000	595000	580000	50	-97	75-125	3	20	P6
Iron	ug/L	10200	10000	10000	19600	19300	94	91	75-125	2	20	
Lead	ug/L	ND	1000	1000	892	887	89	89	75-125	1	20	
Lithium	ug/L	ND	1000	1000	1030	1040	103	103	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3492972 3492973

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Magnesium	ug/L	45700	10000	10000	54500	53400	88	77	75-125	2	20	
Molybdenum	ug/L	34.9	1000	1000	1060	1060	103	102	75-125	1	20	
Potassium	ug/L	3130	10000	10000	13400	13300	103	102	75-125	0	20	
Silica	ug/L	12300	10700	10700	23100	22800	101	98	75-125	1	20	N2
Sodium	ug/L	25500	10000	10000	34900	34500	94	90	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

QC Batch: 762443
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359028001, 50359028002

METHOD BLANK: 3495065 Matrix: Water
Associated Lab Samples: 50359028001, 50359028002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	11.4	11/15/23 21:56	
Iron, Dissolved	ug/L	ND	100	18.1	11/15/23 21:56	
Lithium, Dissolved	ug/L	ND	20.0	5.1	11/15/23 21:56	
Magnesium, Dissolved	ug/L	ND	1000	32.8	11/15/23 21:56	
Molybdenum, Dissolved	ug/L	ND	10.0	1.1	11/15/23 21:56	
Potassium, Dissolved	ug/L	ND	1000	120	11/15/23 21:56	

LABORATORY CONTROL SAMPLE: 3495066

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	953	95	80-120	
Iron, Dissolved	ug/L	10000	9840	98	80-120	
Lithium, Dissolved	ug/L	1000	1010	101	80-120	
Magnesium, Dissolved	ug/L	10000	9820	98	80-120	
Molybdenum, Dissolved	ug/L	1000	1010	101	80-120	
Potassium, Dissolved	ug/L	10000	9580	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495067 3495068

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	18400	1000	1000	19100	19200	70	85	75-125	1	20	P6
Iron, Dissolved	ug/L	9900	10000	10000	19500	19800	96	99	75-125	2	20	
Lithium, Dissolved	ug/L	ND	1000	1000	1010	1050	101	105	75-125	4	20	
Magnesium, Dissolved	ug/L	45800	10000	10000	54300	54800	86	91	75-125	1	20	
Molybdenum, Dissolved	ug/L	33.0	1000	1000	1040	1080	101	105	75-125	3	20	
Potassium, Dissolved	ug/L	3060	10000	10000	12700	13100	97	100	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

QC Batch: 762360
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359028001, 50359028002

METHOD BLANK: 3494879 Matrix: Water
Associated Lab Samples: 50359028001, 50359028002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	2.3	11/14/23 04:30	
Arsenic	ug/L	ND	1.0	0.075	11/14/23 04:30	
Barium	ug/L	ND	1.0	0.077	11/14/23 04:30	
Cobalt	ug/L	ND	1.0	0.046	11/14/23 04:30	
Manganese	ug/L	ND	1.0	0.17	11/14/23 04:30	
Selenium	ug/L	ND	1.0	0.20	11/14/23 04:30	

LABORATORY CONTROL SAMPLE: 3494880

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	395	99	80-120	
Arsenic	ug/L	40	38.8	97	80-120	
Barium	ug/L	40	39.3	98	80-120	
Cobalt	ug/L	40	41.4	103	80-120	
Manganese	ug/L	40	40.8	102	80-120	
Selenium	ug/L	40	39.5	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3494881 3494882

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	23.5	400	400	415	408	98	96	75-125	2	20	
Arsenic	ug/L	ND	40	40	38.4	38.3	95	95	75-125	0	20	
Barium	ug/L	22.5	40	40	59.7	59.4	93	92	75-125	0	20	
Cobalt	ug/L	ND	40	40	39.7	39.9	98	98	75-125	1	20	
Manganese	ug/L	1500	40	40	1530	1540	69	87	75-125	0	20	P6
Selenium	ug/L	ND	40	40	40.0	40.4	100	100	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

QC Batch: 761945
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359028001, 50359028002

METHOD BLANK: 3492364 Matrix: Water
Associated Lab Samples: 50359028001, 50359028002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.8	11/11/23 00:28	
Manganese, Dissolved	ug/L	ND	1.0	0.18	11/11/23 00:28	

LABORATORY CONTROL SAMPLE: 3492365

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	392	98	80-120	
Manganese, Dissolved	ug/L	40	41.5	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3492366 3492367

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	361	371	90	92	75-125	3	20	
Manganese, Dissolved	ug/L	1490	40	40	1530	1530	86	89	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

QC Batch: 761987
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359028001, 50359028002

METHOD BLANK: 3492794 Matrix: Water
Associated Lab Samples: 50359028001, 50359028002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/09/23 21:57	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/09/23 21:57	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/09/23 21:57	

LABORATORY CONTROL SAMPLE: 3492795

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.5	97	90-110	

SAMPLE DUPLICATE: 3492796

Parameter	Units	50358873001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	216	219	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	203	206	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	13.2	12.8	3	20	

SAMPLE DUPLICATE: 3492797

Parameter	Units	50359028002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	128	127	0	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	128	127	0	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

QC Batch: 762490
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359028001, 50359028002

METHOD BLANK: 3495174 Matrix: Water
Associated Lab Samples: 50359028001, 50359028002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/13/23 14:45	

LABORATORY CONTROL SAMPLE: 3495175

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	277	92	80-120	

SAMPLE DUPLICATE: 3495176

Parameter	Units	50359028002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2430	2350	4	10	

SAMPLE DUPLICATE: 3495177

Parameter	Units	50359053007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	430	430	0	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

QC Batch: 763865
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359028001, 50359028002

SAMPLE DUPLICATE: 3501755

Parameter	Units	50359028002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.2	7.2	1	2	H3

SAMPLE DUPLICATE: 3501756

Parameter	Units	50358941020 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.7	6.8	0	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

QC Batch: 761828
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359028001, 50359028002

METHOD BLANK: 3491789 Matrix: Water
Associated Lab Samples: 50359028001, 50359028002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/09/23 14:48	

LABORATORY CONTROL SAMPLE: 3491790

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3491791 3491792

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.29	0.32	58	65	90-110	11	20	M3

MATRIX SPIKE SAMPLE: 3491793

Parameter	Units	50359039001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.47	92	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

QC Batch: 762089
QC Batch Method: HACH 8146
Analysis Method: HACH 8146
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359028001, 50359028002

METHOD BLANK: 3493307 Matrix: Water
Associated Lab Samples: 50359028001, 50359028002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/10/23 13:59	H3,N2

LABORATORY CONTROL SAMPLE: 3493308

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	101	90-110	H3,N2

MATRIX SPIKE SAMPLE: 3493309

Parameter	Units	50359039002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.1	106	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3493310 3493311

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	2.4	25	25	27.0	27.3	99	100	90-110	1	20	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

QC Batch: 761711
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359028001, 50359028002

METHOD BLANK: 3491357 Matrix: Water
Associated Lab Samples: 50359028001, 50359028002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/08/23 23:39	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/08/23 23:39	

LABORATORY CONTROL SAMPLE: 3491358

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	101	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3491359 3491360

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	5	5	4.8	4.8	96	97	90-110	1	20	
Nitrogen, Nitrite	mg/L	ND	5	5	5.1	5.1	102	102	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3491361 3491362

Parameter	Units	50358941020 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	5	5	4.8	4.8	96	96	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	5	5	5.1	5.1	101	101	90-110	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

QC Batch: 763542
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359028001, 50359028002

METHOD BLANK: 3500003 Matrix: Water
Associated Lab Samples: 50359028001, 50359028002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	11/19/23 19:55	

LABORATORY CONTROL SAMPLE: 3500004

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3500005 3500006

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	0.41			1.8	1.9				3		

MATRIX SPIKE SAMPLE: 3500007

Parameter	Units	50359017001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	0.90		2.4			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

QC Batch: 763082
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359028001, 50359028002

METHOD BLANK: 3497443 Matrix: Water
Associated Lab Samples: 50359028001, 50359028002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	11/15/23 17:12	

LABORATORY CONTROL SAMPLE: 3497444

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.6	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3497445 3497446

Parameter	Units	50358928006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	2.3	5	5	7.2	7.1	97	96	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3497452 3497453

Parameter	Units	50358931002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	2.2J	5	5	7.1	7.1	98	97	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3497455 3497456

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	1.2	10	10	10.7	10.8	96	97	80-120	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

QC Batch: 763583
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359028001, 50359028002

METHOD BLANK: 3500186 Matrix: Water
Associated Lab Samples: 50359028001, 50359028002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	11/18/23 00:01	

LABORATORY CONTROL SAMPLE: 3500187

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3500188 3500189

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.0	10	10	11.6	11.7	96	97	80-120	1	20	

MATRIX SPIKE SAMPLE: 3500190

Parameter	Units	50359034001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	2.9	10	12.6	97	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

Sample: MW-25A **Lab ID: 50359028001** Collected: 11/07/23 12:15 Received: 11/08/23 10:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.177 ± 0.530 (0.983) C:NA T:80%**	pCi/L	12/01/23 12:06	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.795 ± 0.397 (0.674) C:86% T:80%**	pCi/L	11/22/23 11:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.972 ± 0.927 (1.66)**	pCi/L	02/08/24 11:53	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

Sample: MW-25I **Lab ID: 50359028002** Collected: 11/07/23 12:15 Received: 11/08/23 10:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.255 ± 0.559 (1.01) C:NA T:80%**	pCi/L	12/01/23 12:06	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.178 ± 0.328 (0.720) C:84% T:80%**	pCi/L	11/22/23 11:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.433 ± 0.887 (1.73)**	pCi/L	12/04/23 13:53	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

Sample: MW-25I MS **Lab ID: 50359028003** Collected: 11/07/23 15:00 Received: 11/08/23 10:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**96.44 %REC± NA (NA) C:NA T:NA**	pCi/L	12/01/23 12:06	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**93.66 %REC ± NA (NA) C:NA T:NA**	pCi/L	11/22/23 11:47	15262-20-1	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

Sample: MW-25I MSD **Lab ID: 50359028004** Collected: 11/07/23 15:00 Received: 11/08/23 10:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**112.56 %REC 15.42RPD ± NA (NA) C:NA T:NA**	pCi/L	12/01/23 12:06	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**94.28 %REC 0.65RPD ± NA (NA) C:NA T:NA**	pCi/L	11/22/23 11:48	15262-20-1	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

QC Batch: 629389
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359028001, 50359028002, 50359028003, 50359028004

METHOD BLANK: 3068340 Matrix: Water
Associated Lab Samples: 50359028001, 50359028002, 50359028003, 50359028004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.395 ± 0.313 (0.616) C:86% T:88%	pCi/L	11/22/23 11:45	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

QC Batch: 629387
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359028001, 50359028002, 50359028003, 50359028004

METHOD BLANK: 3068339 Matrix: Water
Associated Lab Samples: 50359028001, 50359028002, 50359028003, 50359028004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.469 ± 0.367 (0.431) C:NA T:88%	pCi/L	12/01/23 11:52	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359028

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359028001	**MW-25A**	EPA 9056	762556		
50359028002	**MW-25I**	EPA 9056	762556		
50359028001	**MW-25A**	EPA 3010	762014	EPA 6010	763497
50359028002	**MW-25I**	EPA 3010	762014	EPA 6010	763497
50359028001	**MW-25A**	EPA 3010	762443	EPA 6010	763223
50359028002	**MW-25I**	EPA 3010	762443	EPA 6010	763223
50359028001	**MW-25A**	EPA 200.2	762360	EPA 6020	762608
50359028002	**MW-25I**	EPA 200.2	762360	EPA 6020	762608
50359028001	**MW-25A**	EPA 200.2	761945	EPA 6020	762232
50359028002	**MW-25I**	EPA 200.2	761945	EPA 6020	762232
50359028001	**MW-25A**	EPA 903.1	629387		
50359028002	**MW-25I**	EPA 903.1	629387		
50359028003	**MW-25I MS**	EPA 903.1	629387		
50359028004	**MW-25I MSD**	EPA 903.1	629387		
50359028001	**MW-25A**	EPA 904.0	629389		
50359028002	**MW-25I**	EPA 904.0	629389		
50359028003	**MW-25I MS**	EPA 904.0	629389		
50359028004	**MW-25I MSD**	EPA 904.0	629389		
50359028001	**MW-25A**	Total Radium Calculation	647451		
50359028002	**MW-25I**	Total Radium Calculation	633600		
50359028001	**MW-25A**	SM 2320B	761987		
50359028002	**MW-25I**	SM 2320B	761987		
50359028001	**MW-25A**	SM 2540C	762490		
50359028002	**MW-25I**	SM 2540C	762490		
50359028001	**MW-25A**	SM 4500-H+B	763865		
50359028002	**MW-25I**	SM 4500-H+B	763865		
50359028001	**MW-25A**	SM 4500-S2-D	761828		
50359028002	**MW-25I**	SM 4500-S2-D	761828		
50359028001	**MW-25A**	HACH 8146	762089		
50359028002	**MW-25I**	HACH 8146	762089		
50359028001	**MW-25A**	EPA 353.2	761711		
50359028002	**MW-25I**	EPA 353.2	761711		
50359028001	**MW-25A**	EPA 365.1	763542	EPA 365.1	763961
50359028002	**MW-25I**	EPA 365.1	763542	EPA 365.1	763961
50359028001	**MW-25A**	SM 5310C	763082		
50359028002	**MW-25I**	SM 5310C	763082		
50359028001	**MW-25A**	SM 5310C	763583		
50359028002	**MW-25I**	SM 5310C	763583		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

50359028

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P4R3 Nov 2023	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:		Pace Profile #:	10498/53

Regulatory Agency
State / Location
IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO2, NO3 Wet	(Br, Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity*, Ferrous Iron, pH	TOC by 5310C	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum	Residual Chlorine (Y/N)
	MATRIX CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																	Y				Y						
1	MW25A	WT	G			11-7	1215		11	✓	✓	✓		✓					✓									
2	MW25I	WT	G			11-7	1500		11	✓	✓	✓		✓					✓									
3	MS4	WT	G			11-7	1500		11	✓	✓	✓		✓					✓									
4	MSD4	WT	G			11-7	1500		11	✓	✓	✓		✓					✓									
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
* Metals: 6010 (B, Cd, Fe, Pb, Mo, Ca, Mg, Na, K, Li, sila) (11)	Hayley Doles / ATLAS	11-7	8:00	Jay Williams	11-8	8:00				
6020 (Al, Mn, Co, As, Se, Ba) (6)	Jay Williams	11-8	10:45		11-8-23	10:45	see SCVA	y	N	y
** Dissolved FF 6010 (B, Fe, Mo, Mg, K, Li) (6) FF 6020 (Al, Mn) (2)										
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE					
PRINT Name of SAMPLER:	Hayley Doles				
SIGNATURE of SAMPLER:		DATE Signed:	11-7-23	TEMP in C	Received on Ice (Y/N)

Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

F-IN-Q-290-rev.23, 26Jun2023

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: BC 11-8-23 12:06

1. **Courier:** ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☐ Yes ☑ No

(If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H

4. **Cooler Temperature(s):** See | Comments | | |
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓
Short Hold Time Analysis (48 hours or less)? **Analysis:** NO3	✓	
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:	
Rush TAT Requested (4 days or less):		✓
Custody Signatures Present?	✓	
Containers Intact?:	✓	
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓	
Extra labels on Terracore Vials? (soils only)		

	Yes	No	N/A
All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** ~~HNO3 (<2)~~ ~~H2SO4 (<2)~~ NaOH (>10) ~~NaOH/ZnAc (>9)~~ Any non-conformance to pH recommendations will be noted on the container count form	✓		
	Present	Absent	N/A
Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Headspace Wisconsin Sulfide?			✓
	Present	Absent	No VOA Vials Sent
Headspace in VOA Vials (>6mm): See Containter Count form for details			✓
Trip Blank Present?		✓	
Trip Blank Custody Seals?:			✓

COMMENTS: Temps: 0.6/0.6, 1.0/1.0, 1.5/1.5, 0.4/0.4, 0.6/0.6, 0.5/0.5, 0.3/0.3, 0.2/0.2

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC									OTHER							
			MeOH (only)																												
			SBS																												
			DI			VOA VIAL HS >6mm																										
COC Line Item	WGFU	WGKU BG1U	R	DG9H VG9H		VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1												1	1			2	1	2	1	1	1		1				WT	✓	✓		✓
2												3	3			6	3	6	3	3	3		3				1	1	1		1
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 07, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 08, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50359034001	**AP-9I**	Water	11/07/23 12:20	11/08/23 10:45
50359034002	**DUP-5**	Water	11/07/23 08:00	11/08/23 10:45
50359034003	**AP-9A**	Water	11/07/23 13:25	11/08/23 10:45

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50359034001	**AP-9I**	EPA 9056	KBB	4	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	RJP	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359034002	**DUP-5**	EPA 9056	KBB	4	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	RJP	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359034003	**AP-9A**	EPA 9056	KBB	4	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	JPK	6	PASI-I

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	CAW	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	RJP	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359034001	**AP-9I**					
EPA 9056	Bromide	6.5	mg/L	0.050	11/15/23 19:06	
EPA 9056	Chloride	130	mg/L	2.5	11/15/23 19:23	
EPA 9056	Fluoride	0.25	mg/L	0.10	11/15/23 19:06	
EPA 9056	Sulfate	1450	mg/L	25.0	11/15/23 19:40	
EPA 6010	Boron	23300	ug/L	100	11/16/23 21:22	
EPA 6010	Calcium	643000	ug/L	5000	11/16/23 21:52	
EPA 6010	Iron	4170	ug/L	100	11/16/23 21:22	
EPA 6010	Lithium	38.8	ug/L	20.0	11/16/23 21:22	
EPA 6010	Magnesium	10800	ug/L	1000	11/16/23 21:22	
EPA 6010	Molybdenum	1580	ug/L	10.0	11/16/23 21:22	
EPA 6010	Potassium	31700	ug/L	1000	11/16/23 21:22	
EPA 6010	Silica	9640	ug/L	450	11/16/23 21:22	N2
EPA 6010	Sodium	39700	ug/L	1000	11/16/23 21:22	
EPA 6010	Boron, Dissolved	22900	ug/L	100	11/15/23 22:38	
EPA 6010	Iron, Dissolved	4070	ug/L	100	11/15/23 22:38	
EPA 6010	Lithium, Dissolved	42.3	ug/L	20.0	11/15/23 22:38	
EPA 6010	Magnesium, Dissolved	11000	ug/L	1000	11/15/23 22:38	
EPA 6010	Molybdenum, Dissolved	1560	ug/L	10.0	11/15/23 22:38	
EPA 6010	Potassium, Dissolved	30700	ug/L	1000	11/15/23 22:38	
EPA 6020	Aluminum	27.8	ug/L	10.0	11/14/23 06:09	
EPA 6020	Arsenic	7.7	ug/L	1.0	11/14/23 06:09	
EPA 6020	Barium	28.5	ug/L	1.0	11/14/23 06:09	
EPA 6020	Manganese	1840	ug/L	20.0	11/14/23 06:05	
EPA 6020	Manganese, Dissolved	1830	ug/L	20.0	11/11/23 01:32	
EPA 903.1	Radium-226	-0.235 ± 0.515 (1.10) C:NA T:81%	pCi/L		12/01/23 12:06	
EPA 904.0	Radium-228	0.794 ± 0.411 (0.688) C:86% T:81%	pCi/L		11/22/23 11:46	
Total Radium Calculation	Total Radium	0.794 ± 0.926 (1.79)	pCi/L		12/04/23 13:53	
SM 2320B	Alkalinity, Total as CaCO3	50.2	mg/L	10.0	11/09/23 23:59	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	50.2	mg/L	10.0	11/09/23 23:59	
SM 2540C	Total Dissolved Solids	2690	mg/L	20.0	11/13/23 14:47	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	11/20/23 00:44	H3
EPA 365.1	Phosphate as P04	0.44	mg/L	0.15	11/19/23 19:25	
SM 5310C	Total Organic Carbon	2.0	mg/L	1.0	11/16/23 03:58	
SM 5310C	Dissolved Organic Carbon	2.9	mg/L	1.0	11/18/23 01:30	
50359034002	**DUP-5**					
EPA 9056	Bromide	6.5	mg/L	0.050	11/15/23 19:57	
EPA 9056	Chloride	131	mg/L	2.5	11/15/23 20:14	
EPA 9056	Fluoride	0.25	mg/L	0.10	11/15/23 19:57	
EPA 9056	Sulfate	1440	mg/L	25.0	11/15/23 20:31	
EPA 6010	Boron	23500	ug/L	100	11/16/23 21:24	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359034002	**DUP-5**					
EPA 6010	Calcium	647000	ug/L	5000	11/16/23 21:54	
EPA 6010	Iron	4300	ug/L	100	11/16/23 21:24	
EPA 6010	Lithium	40.1	ug/L	20.0	11/16/23 21:24	
EPA 6010	Magnesium	11100	ug/L	1000	11/16/23 21:24	
EPA 6010	Molybdenum	1610	ug/L	10.0	11/16/23 21:24	
EPA 6010	Potassium	31800	ug/L	1000	11/16/23 21:24	
EPA 6010	Silica	9890	ug/L	450	11/16/23 21:24	N2
EPA 6010	Sodium	39900	ug/L	1000	11/16/23 21:24	
EPA 6010	Boron, Dissolved	22400	ug/L	100	11/15/23 22:40	
EPA 6010	Iron, Dissolved	3950	ug/L	100	11/15/23 22:40	
EPA 6010	Lithium, Dissolved	37.9	ug/L	20.0	11/15/23 22:40	
EPA 6010	Magnesium, Dissolved	10800	ug/L	1000	11/15/23 22:40	
EPA 6010	Molybdenum, Dissolved	1520	ug/L	10.0	11/15/23 22:40	
EPA 6010	Potassium, Dissolved	29900	ug/L	1000	11/15/23 22:40	
EPA 6020	Aluminum	75.0	ug/L	10.0	11/14/23 06:22	
EPA 6020	Arsenic	8.2	ug/L	1.0	11/14/23 06:22	
EPA 6020	Barium	28.3	ug/L	1.0	11/14/23 06:22	
EPA 6020	Manganese	1820	ug/L	20.0	11/14/23 06:15	
EPA 6020	Manganese, Dissolved	1820	ug/L	20.0	11/14/23 18:56	
EPA 903.1	Radium-226	0.447 ± 0.587 (0.977) C:NA T:79%	pCi/L		12/01/23 12:06	
EPA 904.0	Radium-228	0.924 ± 0.435 (0.722) C:86% T:79%	pCi/L		11/22/23 11:46	
Total Radium Calculation	Total Radium	1.37 ± 1.02 (1.70)	pCi/L		12/04/23 13:53	
SM 2320B	Alkalinity, Total as CaCO3	50.4	mg/L	10.0	11/09/23 23:59	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	50.4	mg/L	10.0	11/09/23 23:59	
SM 2540C	Total Dissolved Solids	2420	mg/L	20.0	11/13/23 14:47	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	11/20/23 00:41	H3
HACH 8146	Iron, Ferrous	0.36	mg/L	0.20	11/10/23 14:03	H3,N2
EPA 365.1	Phosphate as P04	0.37	mg/L	0.15	11/19/23 19:25	
SM 5310C	Dissolved Organic Carbon	2.5	mg/L	1.0	11/18/23 01:53	
50359034003	**AP-9A**					
EPA 9056	Bromide	15.8	mg/L	0.50	11/15/23 21:38	
EPA 9056	Chloride	208	mg/L	2.5	11/15/23 21:38	
EPA 9056	Fluoride	0.16	mg/L	0.10	11/15/23 21:21	
EPA 9056	Sulfate	1590	mg/L	25.0	11/15/23 21:55	
EPA 6010	Boron	34100	ug/L	100	11/16/23 21:25	
EPA 6010	Calcium	754000	ug/L	5000	11/17/23 04:29	
EPA 6010	Iron	5730	ug/L	100	11/16/23 21:25	
EPA 6010	Magnesium	14300	ug/L	1000	11/16/23 21:25	
EPA 6010	Molybdenum	1430	ug/L	10.0	11/16/23 21:25	
EPA 6010	Potassium	33800	ug/L	1000	11/16/23 21:25	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359034003	**AP-9A**					
EPA 6010	Silica	14200	ug/L	450	11/16/23 21:25	N2
EPA 6010	Sodium	45800	ug/L	1000	11/16/23 21:25	
EPA 6010	Boron, Dissolved	33700	ug/L	100	11/15/23 22:41	
EPA 6010	Iron, Dissolved	5740	ug/L	100	11/15/23 22:41	
EPA 6010	Magnesium, Dissolved	14700	ug/L	1000	11/15/23 22:41	
EPA 6010	Molybdenum, Dissolved	1420	ug/L	10.0	11/15/23 22:41	
EPA 6010	Potassium, Dissolved	32700	ug/L	1000	11/15/23 22:41	
EPA 6020	Aluminum	12.5	ug/L	10.0	11/14/23 06:36	
EPA 6020	Arsenic	1.4	ug/L	1.0	11/14/23 06:36	
EPA 6020	Barium	38.3	ug/L	1.0	11/14/23 06:36	
EPA 6020	Manganese	1540	ug/L	10.0	11/14/23 06:32	
EPA 6020	Manganese, Dissolved	1530	ug/L	20.0	11/11/23 01:36	
EPA 903.1	Radium-226	0.236 ± 0.490 (0.884) C:NA T:82%	pCi/L		12/01/23 12:06	
EPA 904.0	Radium-228	1.29 ± 0.489 (0.733) C:86% T:82%	pCi/L		11/22/23 11:47	
Total Radium Calculation	Total Radium	1.53 ± 0.979 (1.62)	pCi/L		12/04/23 13:53	
SM 2320B	Alkalinity, Total as CaCO3	61.4	mg/L	10.0	11/09/23 23:59	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	61.4	mg/L	10.0	11/09/23 23:59	
SM 2540C	Total Dissolved Solids	3000	mg/L	40.0	11/13/23 14:47	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	11/20/23 00:45	H3
HACH 8146	Iron, Ferrous	1.5	mg/L	0.20	11/10/23 14:50	H3,N2
EPA 365.1	Phosphate as P04	0.48	mg/L	0.15	11/19/23 19:27	
SM 5310C	Total Organic Carbon	4.1	mg/L	2.0	11/16/23 04:18	
SM 5310C	Dissolved Organic Carbon	2.0	mg/L	1.0	11/18/23 02:05	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

Sample: AP-9I **Lab ID: 50359034001** Collected: 11/07/23 12:20 Received: 11/08/23 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**6.5**	mg/L	0.050	0.0090	1		11/15/23 19:06	24959-67-9	
Chloride	**130**	mg/L	2.5	0.67	10		11/15/23 19:23	16887-00-6	
Fluoride	**0.25**	mg/L	0.10	0.017	1		11/15/23 19:06	16984-48-8	
Sulfate	**1450**	mg/L	25.0	19.0	100		11/15/23 19:40	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**23300**	ug/L	100	6.2	1	11/14/23 08:09	11/16/23 21:22	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/14/23 08:09	11/16/23 21:22	7440-43-9	
Calcium	**643000**	ug/L	5000	338	5	11/14/23 08:09	11/16/23 21:52	7440-70-2	
Iron	**4170**	ug/L	100	30.0	1	11/14/23 08:09	11/16/23 21:22	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	11/14/23 08:09	11/16/23 21:22	7439-92-1	
Lithium	**38.8**	ug/L	20.0	6.8	1	11/14/23 08:09	11/16/23 21:22	7439-93-2	
Magnesium	**10800**	ug/L	1000	33.6	1	11/14/23 08:09	11/16/23 21:22	7439-95-4	
Molybdenum	**1580**	ug/L	10.0	0.78	1	11/14/23 08:09	11/16/23 21:22	7439-98-7	
Potassium	**31700**	ug/L	1000	97.8	1	11/14/23 08:09	11/16/23 21:22	7440-09-7	
Silica	**9640**	ug/L	450		1	11/14/23 08:09	11/16/23 21:22	7631-86-9	N2
Sodium	**39700**	ug/L	1000	54.8	1	11/14/23 08:09	11/16/23 21:22	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**22900**	ug/L	100	11.4	1	11/14/23 08:09	11/15/23 22:38	7440-42-8	
Iron, Dissolved	**4070**	ug/L	100	18.1	1	11/14/23 08:09	11/15/23 22:38	7439-89-6	
Lithium, Dissolved	**42.3**	ug/L	20.0	5.1	1	11/14/23 08:09	11/15/23 22:38	7439-93-2	
Magnesium, Dissolved	**11000**	ug/L	1000	32.8	1	11/14/23 08:09	11/15/23 22:38	7439-95-4	
Molybdenum, Dissolved	**1560**	ug/L	10.0	1.1	1	11/14/23 08:09	11/15/23 22:38	7439-98-7	
Potassium, Dissolved	**30700**	ug/L	1000	120	1	11/14/23 08:09	11/15/23 22:38	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**27.8**	ug/L	10.0	2.3	1	11/13/23 07:41	11/14/23 06:09	7429-90-5	
Arsenic	**7.7**	ug/L	1.0	0.075	1	11/13/23 07:41	11/14/23 06:09	7440-38-2	
Barium	**28.5**	ug/L	1.0	0.077	1	11/13/23 07:41	11/14/23 06:09	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/13/23 07:41	11/14/23 06:09	7440-48-4	
Manganese	**1840**	ug/L	20.0	3.4	20	11/13/23 07:41	11/14/23 06:05	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	11/13/23 07:41	11/14/23 06:09	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/10/23 07:10	11/11/23 03:23	7429-90-5	
Manganese, Dissolved	**1830**	ug/L	20.0	3.6	20	11/10/23 07:10	11/11/23 01:32	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

Sample: AP-9I **Lab ID: 50359034001** Collected: 11/07/23 12:20 Received: 11/08/23 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**50.2**	mg/L	10.0	10.0	1		11/09/23 23:59		
Alkalinity,Bicarbonate (CaCO3)	**50.2**	mg/L	10.0	10.0	1		11/09/23 23:59		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/09/23 23:59		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2690**	mg/L	20.0	20.0	1		11/13/23 14:47		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		11/20/23 00:44		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/09/23 14:48	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/10/23 14:48	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/09/23 00:16	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/09/23 00:16	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.44**	mg/L	0.15	0.15	1	11/17/23 13:00	11/19/23 19:25		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**2.0**	mg/L	1.0	0.24	1		11/16/23 03:58	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.9**	mg/L	1.0	0.24	1		11/18/23 01:30		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

Sample: DUP-5 **Lab ID: 50359034002** Collected: 11/07/23 08:00 Received: 11/08/23 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**6.5**	mg/L	0.050	0.0090	1		11/15/23 19:57	24959-67-9	
Chloride	**131**	mg/L	2.5	0.67	10		11/15/23 20:14	16887-00-6	
Fluoride	**0.25**	mg/L	0.10	0.017	1		11/15/23 19:57	16984-48-8	
Sulfate	**1440**	mg/L	25.0	19.0	100		11/15/23 20:31	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**23500**	ug/L	100	6.2	1	11/14/23 08:09	11/16/23 21:24	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/14/23 08:09	11/16/23 21:24	7440-43-9	
Calcium	**647000**	ug/L	5000	338	5	11/14/23 08:09	11/16/23 21:54	7440-70-2	
Iron	**4300**	ug/L	100	30.0	1	11/14/23 08:09	11/16/23 21:24	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	11/14/23 08:09	11/16/23 21:24	7439-92-1	
Lithium	**40.1**	ug/L	20.0	6.8	1	11/14/23 08:09	11/16/23 21:24	7439-93-2	
Magnesium	**11100**	ug/L	1000	33.6	1	11/14/23 08:09	11/16/23 21:24	7439-95-4	
Molybdenum	**1610**	ug/L	10.0	0.78	1	11/14/23 08:09	11/16/23 21:24	7439-98-7	
Potassium	**31800**	ug/L	1000	97.8	1	11/14/23 08:09	11/16/23 21:24	7440-09-7	
Silica	**9890**	ug/L	450		1	11/14/23 08:09	11/16/23 21:24	7631-86-9	N2
Sodium	**39900**	ug/L	1000	54.8	1	11/14/23 08:09	11/16/23 21:24	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**22400**	ug/L	100	11.4	1	11/14/23 08:09	11/15/23 22:40	7440-42-8	
Iron, Dissolved	**3950**	ug/L	100	18.1	1	11/14/23 08:09	11/15/23 22:40	7439-89-6	
Lithium, Dissolved	**37.9**	ug/L	20.0	5.1	1	11/14/23 08:09	11/15/23 22:40	7439-93-2	
Magnesium, Dissolved	**10800**	ug/L	1000	32.8	1	11/14/23 08:09	11/15/23 22:40	7439-95-4	
Molybdenum, Dissolved	**1520**	ug/L	10.0	1.1	1	11/14/23 08:09	11/15/23 22:40	7439-98-7	
Potassium, Dissolved	**29900**	ug/L	1000	120	1	11/14/23 08:09	11/15/23 22:40	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**75.0**	ug/L	10.0	2.3	1	11/13/23 07:41	11/14/23 06:22	7429-90-5	
Arsenic	**8.2**	ug/L	1.0	0.075	1	11/13/23 07:41	11/14/23 06:22	7440-38-2	
Barium	**28.3**	ug/L	1.0	0.077	1	11/13/23 07:41	11/14/23 06:22	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/13/23 07:41	11/14/23 06:22	7440-48-4	
Manganese	**1820**	ug/L	20.0	3.4	20	11/13/23 07:41	11/14/23 06:15	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	11/13/23 07:41	11/14/23 06:22	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/10/23 07:10	11/11/23 03:27	7429-90-5	
Manganese, Dissolved	**1820**	ug/L	20.0	3.6	20	11/10/23 07:10	11/14/23 18:56	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

Sample: DUP-5 **Lab ID: 50359034002** Collected: 11/07/23 08:00 Received: 11/08/23 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**50.4**	mg/L	10.0	10.0	1		11/09/23 23:59		
Alkalinity,Bicarbonate (CaCO3)	**50.4**	mg/L	10.0	10.0	1		11/09/23 23:59		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/09/23 23:59		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2420**	mg/L	20.0	20.0	1		11/13/23 14:47		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		11/20/23 00:41		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/09/23 14:48	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**0.36**	mg/L	0.20	0.035	1		11/10/23 14:03	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/08/23 22:49	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/08/23 22:49	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.37**	mg/L	0.15	0.15	1	11/17/23 13:00	11/19/23 19:25		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.24	1		11/16/23 04:44	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.5**	mg/L	1.0	0.24	1		11/18/23 01:53		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

Sample: AP-9A **Lab ID: 50359034003** Collected: 11/07/23 13:25 Received: 11/08/23 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**15.8**	mg/L	0.50	0.090	10		11/15/23 21:38	24959-67-9	
Chloride	**208**	mg/L	2.5	0.67	10		11/15/23 21:38	16887-00-6	
Fluoride	**0.16**	mg/L	0.10	0.017	1		11/15/23 21:21	16984-48-8	
Sulfate	**1590**	mg/L	25.0	19.0	100		11/15/23 21:55	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**34100**	ug/L	100	6.2	1	11/14/23 08:09	11/16/23 21:25	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/14/23 08:09	11/16/23 21:25	7440-43-9	
Calcium	**754000**	ug/L	5000	338	5	11/14/23 08:09	11/17/23 04:29	7440-70-2	
Iron	**5730**	ug/L	100	30.0	1	11/14/23 08:09	11/16/23 21:25	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	11/14/23 08:09	11/16/23 21:25	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/14/23 08:09	11/16/23 21:25	7439-93-2	
Magnesium	**14300**	ug/L	1000	33.6	1	11/14/23 08:09	11/16/23 21:25	7439-95-4	
Molybdenum	**1430**	ug/L	10.0	0.78	1	11/14/23 08:09	11/16/23 21:25	7439-98-7	
Potassium	**33800**	ug/L	1000	97.8	1	11/14/23 08:09	11/16/23 21:25	7440-09-7	
Silica	**14200**	ug/L	450		1	11/14/23 08:09	11/16/23 21:25	7631-86-9	N2
Sodium	**45800**	ug/L	1000	54.8	1	11/14/23 08:09	11/16/23 21:25	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**33700**	ug/L	100	11.4	1	11/14/23 08:09	11/15/23 22:41	7440-42-8	
Iron, Dissolved	**5740**	ug/L	100	18.1	1	11/14/23 08:09	11/15/23 22:41	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	11/14/23 08:09	11/15/23 22:41	7439-93-2	
Magnesium, Dissolved	**14700**	ug/L	1000	32.8	1	11/14/23 08:09	11/15/23 22:41	7439-95-4	
Molybdenum, Dissolved	**1420**	ug/L	10.0	1.1	1	11/14/23 08:09	11/15/23 22:41	7439-98-7	
Potassium, Dissolved	**32700**	ug/L	1000	120	1	11/14/23 08:09	11/15/23 22:41	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**12.5**	ug/L	10.0	2.3	1	11/13/23 07:41	11/14/23 06:36	7429-90-5	
Arsenic	**1.4**	ug/L	1.0	0.075	1	11/13/23 07:41	11/14/23 06:36	7440-38-2	
Barium	**38.3**	ug/L	1.0	0.077	1	11/13/23 07:41	11/14/23 06:36	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/13/23 07:41	11/14/23 06:36	7440-48-4	
Manganese	**1540**	ug/L	10.0	1.7	10	11/13/23 07:41	11/14/23 06:32	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	11/13/23 07:41	11/14/23 06:36	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/10/23 07:10	11/11/23 03:31	7429-90-5	
Manganese, Dissolved	**1530**	ug/L	20.0	3.6	20	11/10/23 07:10	11/11/23 01:36	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

Sample: AP-9A **Lab ID: 50359034003** Collected: 11/07/23 13:25 Received: 11/08/23 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**61.4**	mg/L	10.0	10.0	1		11/09/23 23:59		
Alkalinity,Bicarbonate (CaCO3)	**61.4**	mg/L	10.0	10.0	1		11/09/23 23:59		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/09/23 23:59		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**3000**	mg/L	40.0	40.0	1		11/13/23 14:47		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		11/20/23 00:45		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/09/23 14:48	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**1.5**	mg/L	0.20	0.035	1		11/10/23 14:50	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/09/23 00:52	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/09/23 00:52	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.48**	mg/L	0.15	0.15	1	11/17/23 13:00	11/19/23 19:27		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**4.1**	mg/L	2.0	0.47	2		11/16/23 04:18	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.0**	mg/L	1.0	0.24	1		11/18/23 02:05		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

QC Batch: 762556
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359034001, 50359034002, 50359034003

METHOD BLANK: 3495366 Matrix: Water
Associated Lab Samples: 50359034001, 50359034002, 50359034003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	11/15/23 09:23	
Chloride	mg/L	ND	0.25	0.067	11/15/23 09:23	
Fluoride	mg/L	ND	0.10	0.017	11/15/23 09:23	
Sulfate	mg/L	ND	0.25	0.19	11/15/23 09:23	

LABORATORY CONTROL SAMPLE: 3495367

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.99	99	80-120	
Chloride	mg/L	2.5	2.4	96	80-120	
Fluoride	mg/L	1	0.99	99	80-120	
Sulfate	mg/L	5	4.7	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495368 3495369

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	0.56	1	1	1.5	1.5	98	97	80-120	1	15	
Chloride	mg/L	59.8	25	25	86.1	86.2	105	106	80-120	0	15	
Fluoride	mg/L	ND	1	1	0.96	0.94	95	93	80-120	2	15	
Sulfate	mg/L	1340	500	500	1840	1850	99	101	80-120	1	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

QC Batch: 762014
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359034001, 50359034002, 50359034003

METHOD BLANK: 3492970 Matrix: Water
Associated Lab Samples: 50359034001, 50359034002, 50359034003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	11/16/23 21:01	
Cadmium	ug/L	ND	2.0	0.60	11/16/23 21:01	
Calcium	ug/L	ND	1000	67.7	11/16/23 21:01	
Iron	ug/L	ND	100	30.0	11/16/23 21:01	
Lead	ug/L	ND	10.0	2.5	11/16/23 21:01	
Lithium	ug/L	ND	20.0	6.8	11/16/23 21:01	
Magnesium	ug/L	ND	1000	33.6	11/16/23 21:01	
Molybdenum	ug/L	ND	10.0	0.78	11/16/23 21:01	
Potassium	ug/L	ND	1000	97.8	11/16/23 21:01	
Silica	ug/L	ND	450		11/16/23 21:01	N2
Sodium	ug/L	ND	1000	54.8	11/16/23 21:01	

LABORATORY CONTROL SAMPLE: 3492971

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	965	97	80-120	
Cadmium	ug/L	1000	1010	101	80-120	
Calcium	ug/L	10000	10100	101	80-120	
Iron	ug/L	10000	9840	98	80-120	
Lead	ug/L	1000	946	95	80-120	
Lithium	ug/L	1000	1010	101	80-120	
Magnesium	ug/L	10000	9670	97	80-120	
Molybdenum	ug/L	1000	1030	103	80-120	
Potassium	ug/L	10000	9890	99	80-120	
Silica	ug/L	10700	10700	100	80-120	N2
Sodium	ug/L	10000	9880	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3492972 3492973

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	18900	1000	1000	19700	19200	77	36	75-125	2	20	P6
Cadmium	ug/L	ND	1000	1000	1030	1020	103	102	75-125	0	20	
Calcium	ug/L	590000	10000	10000	595000	580000	50	-97	75-125	3	20	P6
Iron	ug/L	10200	10000	10000	19600	19300	94	91	75-125	2	20	
Lead	ug/L	ND	1000	1000	892	887	89	89	75-125	1	20	
Lithium	ug/L	ND	1000	1000	1030	1040	103	103	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3492972 3492973

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Magnesium	ug/L	45700	10000	10000	54500	53400	88	77	75-125	2	20	
Molybdenum	ug/L	34.9	1000	1000	1060	1060	103	102	75-125	1	20	
Potassium	ug/L	3130	10000	10000	13400	13300	103	102	75-125	0	20	
Silica	ug/L	12300	10700	10700	23100	22800	101	98	75-125	1	20	N2
Sodium	ug/L	25500	10000	10000	34900	34500	94	90	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

QC Batch: 762443
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359034001, 50359034002, 50359034003

METHOD BLANK: 3495065 Matrix: Water
Associated Lab Samples: 50359034001, 50359034002, 50359034003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	11.4	11/15/23 21:56	
Iron, Dissolved	ug/L	ND	100	18.1	11/15/23 21:56	
Lithium, Dissolved	ug/L	ND	20.0	5.1	11/15/23 21:56	
Magnesium, Dissolved	ug/L	ND	1000	32.8	11/15/23 21:56	
Molybdenum, Dissolved	ug/L	ND	10.0	1.1	11/15/23 21:56	
Potassium, Dissolved	ug/L	ND	1000	120	11/15/23 21:56	

LABORATORY CONTROL SAMPLE: 3495066

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	953	95	80-120	
Iron, Dissolved	ug/L	10000	9840	98	80-120	
Lithium, Dissolved	ug/L	1000	1010	101	80-120	
Magnesium, Dissolved	ug/L	10000	9820	98	80-120	
Molybdenum, Dissolved	ug/L	1000	1010	101	80-120	
Potassium, Dissolved	ug/L	10000	9580	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495067 3495068

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	18400	1000	1000	19100	19200	70	85	75-125	1	20	P6
Iron, Dissolved	ug/L	9900	10000	10000	19500	19800	96	99	75-125	2	20	
Lithium, Dissolved	ug/L	ND	1000	1000	1010	1050	101	105	75-125	4	20	
Magnesium, Dissolved	ug/L	45800	10000	10000	54300	54800	86	91	75-125	1	20	
Molybdenum, Dissolved	ug/L	33.0	1000	1000	1040	1080	101	105	75-125	3	20	
Potassium, Dissolved	ug/L	3060	10000	10000	12700	13100	97	100	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

QC Batch: 762360
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359034001, 50359034002, 50359034003

METHOD BLANK: 3494879 Matrix: Water
Associated Lab Samples: 50359034001, 50359034002, 50359034003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	2.3	11/14/23 04:30	
Arsenic	ug/L	ND	1.0	0.075	11/14/23 04:30	
Barium	ug/L	ND	1.0	0.077	11/14/23 04:30	
Cobalt	ug/L	ND	1.0	0.046	11/14/23 04:30	
Manganese	ug/L	ND	1.0	0.17	11/14/23 04:30	
Selenium	ug/L	ND	1.0	0.20	11/14/23 04:30	

LABORATORY CONTROL SAMPLE: 3494880

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	395	99	80-120	
Arsenic	ug/L	40	38.8	97	80-120	
Barium	ug/L	40	39.3	98	80-120	
Cobalt	ug/L	40	41.4	103	80-120	
Manganese	ug/L	40	40.8	102	80-120	
Selenium	ug/L	40	39.5	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3494881 3494882

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	23.5	400	400	415	408	98	96	75-125	2	20	
Arsenic	ug/L	ND	40	40	38.4	38.3	95	95	75-125	0	20	
Barium	ug/L	22.5	40	40	59.7	59.4	93	92	75-125	0	20	
Cobalt	ug/L	ND	40	40	39.7	39.9	98	98	75-125	1	20	
Manganese	ug/L	1500	40	40	1530	1540	69	87	75-125	0	20	P6
Selenium	ug/L	ND	40	40	40.0	40.4	100	100	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

QC Batch: 761945
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359034001, 50359034002, 50359034003

METHOD BLANK: 3492364 Matrix: Water
Associated Lab Samples: 50359034001, 50359034002, 50359034003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.8	11/11/23 00:28	
Manganese, Dissolved	ug/L	ND	1.0	0.18	11/11/23 00:28	

LABORATORY CONTROL SAMPLE: 3492365

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	392	98	80-120	
Manganese, Dissolved	ug/L	40	41.5	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3492366 3492367

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	361	371	90	92	75-125	3	20	
Manganese, Dissolved	ug/L	1490	40	40	1530	1530	86	89	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

QC Batch: 761998
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359034001, 50359034002, 50359034003

METHOD BLANK: 3492882 Matrix: Water
Associated Lab Samples: 50359034001, 50359034002, 50359034003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/09/23 23:59	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/09/23 23:59	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/09/23 23:59	

LABORATORY CONTROL SAMPLE: 3492883

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.8	98	90-110	

SAMPLE DUPLICATE: 3492884

Parameter	Units	50358941018 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	129	130	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	129	130	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3492885

Parameter	Units	50358941020 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	246	251	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	246	251	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

QC Batch: 762490 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359034001, 50359034002, 50359034003

METHOD BLANK: 3495174 Matrix: Water
Associated Lab Samples: 50359034001, 50359034002, 50359034003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/13/23 14:45	

LABORATORY CONTROL SAMPLE: 3495175

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	277	92	80-120	

SAMPLE DUPLICATE: 3495176

Parameter	Units	50359028002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2430	2350	4	10	

SAMPLE DUPLICATE: 3495177

Parameter	Units	50359053007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	430	430	0	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

QC Batch: 763868
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359034001, 50359034002, 50359034003

SAMPLE DUPLICATE: 3501761

Parameter	Units	50357998001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.3	1	2	H3

SAMPLE DUPLICATE: 3501762

Parameter	Units	50359731001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.7	6.7	0	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

QC Batch: 761828
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359034001, 50359034002, 50359034003

METHOD BLANK: 3491789 Matrix: Water
Associated Lab Samples: 50359034001, 50359034002, 50359034003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/09/23 14:48	

LABORATORY CONTROL SAMPLE: 3491790

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3491791 3491792

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.29	0.32	58	65	90-110	11	20	M3

MATRIX SPIKE SAMPLE: 3491793

Parameter	Units	50359039001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.47	92	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

QC Batch: 762089
QC Batch Method: HACH 8146
Analysis Method: HACH 8146
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359034001, 50359034002, 50359034003

METHOD BLANK: 3493307 Matrix: Water
Associated Lab Samples: 50359034001, 50359034002, 50359034003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/10/23 13:59	H3,N2

LABORATORY CONTROL SAMPLE: 3493308

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	101	90-110	H3,N2

MATRIX SPIKE SAMPLE: 3493309

Parameter	Units	50359039002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.1	106	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3493310 3493311

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	2.4	25	25	27.0	27.3	99	100	90-110	1	20	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

QC Batch: 761710
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359034002

METHOD BLANK: 3491352 Matrix: Water
Associated Lab Samples: 50359034002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/08/23 22:45	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/08/23 22:45	

LABORATORY CONTROL SAMPLE: 3491353

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	101	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	102	90-110	

MATRIX SPIKE SAMPLE: 3491354

Parameter	Units	50358941017 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	0.49	1	1.4	96	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3491355 3491356

Parameter	Units	50358941002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.0	1.0	101	101	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	102	102	90-110	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

QC Batch: 761711
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359034001

METHOD BLANK: 3491357 Matrix: Water
Associated Lab Samples: 50359034001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/08/23 23:39	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/08/23 23:39	

LABORATORY CONTROL SAMPLE: 3491358

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	101	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3491359 3491360

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	5	5	4.8	4.8	96	97	90-110	1	20	
Nitrogen, Nitrite	mg/L	ND	5	5	5.1	5.1	102	102	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3491361 3491362

Parameter	Units	50358941020 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	5	5	4.8	4.8	96	96	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	5	5	5.1	5.1	101	101	90-110	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

QC Batch: 761712
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359034003

METHOD BLANK: 3491363 Matrix: Water
Associated Lab Samples: 50359034003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/09/23 00:39	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/09/23 00:39	

LABORATORY CONTROL SAMPLE: 3491364

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	101	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3491365 3491366

Parameter	Units	50358934009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	5	5	4.8	4.8	95	95	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	5	5	5.0	5.0	100	101	90-110	0	20	

MATRIX SPIKE SAMPLE: 3491367

Parameter	Units	50358941011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.0	102	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	104	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

QC Batch: 763542
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359034001, 50359034002, 50359034003

METHOD BLANK: 3500003 Matrix: Water
Associated Lab Samples: 50359034001, 50359034002, 50359034003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	11/19/23 19:55	

LABORATORY CONTROL SAMPLE: 3500004

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3500005 3500006

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	0.41			1.8	1.9				3		

MATRIX SPIKE SAMPLE: 3500007

Parameter	Units	50359017001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	0.90		2.4			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

QC Batch: 763082
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359034001, 50359034002, 50359034003

METHOD BLANK: 3497443 Matrix: Water
Associated Lab Samples: 50359034001, 50359034002, 50359034003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	11/15/23 17:12	

LABORATORY CONTROL SAMPLE: 3497444

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.6	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3497445 3497446

Parameter	Units	50358928006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	2.3	5	5	7.2	7.1	97	96	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3497452 3497453

Parameter	Units	50358931002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	2.2J	5	5	7.1	7.1	98	97	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3497455 3497456

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	1.2	10	10	10.7	10.8	96	97	80-120	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

QC Batch: 763583 | Analysis Method: SM 5310C
QC Batch Method: SM 5310C | Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359034001, 50359034002, 50359034003

METHOD BLANK: 3500186 Matrix: Water
Associated Lab Samples: 50359034001, 50359034002, 50359034003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	11/18/23 00:01	

LABORATORY CONTROL SAMPLE: 3500187

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3500188 3500189

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.0	10	10	11.6	11.7	96	97	80-120	1	20	

MATRIX SPIKE SAMPLE: 3500190

Parameter	Units	50359034001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	2.9	10	12.6	97	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

Sample: AP-9I **Lab ID: 50359034001** Collected: 11/07/23 12:20 Received: 11/08/23 10:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.235 ± 0.515 (1.10) C:NA T:81%**	pCi/L	12/01/23 12:06	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.794 ± 0.411 (0.688) C:86% T:81%**	pCi/L	11/22/23 11:46	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.794 ± 0.926 (1.79)**	pCi/L	12/04/23 13:53	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

Sample: DUP-5 **Lab ID: 50359034002** Collected: 11/07/23 08:00 Received: 11/08/23 10:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.447 ± 0.587 (0.977) C:NA T:79%**	pCi/L	12/01/23 12:06	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.924 ± 0.435 (0.722) C:86% T:79%**	pCi/L	11/22/23 11:46	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.37 ± 1.02 (1.70)**	pCi/L	12/04/23 13:53	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

Sample: AP-9A **Lab ID: 50359034003** Collected: 11/07/23 13:25 Received: 11/08/23 10:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.236 ± 0.490 (0.884) C:NA T:82%**	pCi/L	12/01/23 12:06	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.29 ± 0.489 (0.733) C:86% T:82%**	pCi/L	11/22/23 11:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.53 ± 0.979 (1.62)**	pCi/L	12/04/23 13:53	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

QC Batch: 629389
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359034001, 50359034002, 50359034003

METHOD BLANK: 3068340
Matrix: Water
Associated Lab Samples: 50359034001, 50359034002, 50359034003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.395 ± 0.313 (0.616) C:86% T:88%	pCi/L	11/22/23 11:45	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

QC Batch: 629387
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359034001, 50359034002, 50359034003

METHOD BLANK: 3068339 Matrix: Water
Associated Lab Samples: 50359034001, 50359034002, 50359034003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.469 ± 0.367 (0.431) C:NA T:88%	pCi/L	12/01/23 11:52	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359034001	**AP-9I**	EPA 9056	762556		
50359034002	**DUP-5**	EPA 9056	762556		
50359034003	**AP-9A**	EPA 9056	762556		
50359034001	**AP-9I**	EPA 3010	762014	EPA 6010	763497
50359034002	**DUP-5**	EPA 3010	762014	EPA 6010	763497
50359034003	**AP-9A**	EPA 3010	762014	EPA 6010	763497
50359034001	**AP-9I**	EPA 3010	762443	EPA 6010	763223
50359034002	**DUP-5**	EPA 3010	762443	EPA 6010	763223
50359034003	**AP-9A**	EPA 3010	762443	EPA 6010	763223
50359034001	**AP-9I**	EPA 200.2	762360	EPA 6020	762608
50359034002	**DUP-5**	EPA 200.2	762360	EPA 6020	762608
50359034003	**AP-9A**	EPA 200.2	762360	EPA 6020	762608
50359034001	**AP-9I**	EPA 200.2	761945	EPA 6020	762232
50359034002	**DUP-5**	EPA 200.2	761945	EPA 6020	762232
50359034003	**AP-9A**	EPA 200.2	761945	EPA 6020	762232
50359034001	**AP-9I**	EPA 903.1	629387		
50359034002	**DUP-5**	EPA 903.1	629387		
50359034003	**AP-9A**	EPA 903.1	629387		
50359034001	**AP-9I**	EPA 904.0	629389		
50359034002	**DUP-5**	EPA 904.0	629389		
50359034003	**AP-9A**	EPA 904.0	629389		
50359034001	**AP-9I**	Total Radium Calculation	633600		
50359034002	**DUP-5**	Total Radium Calculation	633600		
50359034003	**AP-9A**	Total Radium Calculation	633600		
50359034001	**AP-9I**	SM 2320B	761998		
50359034002	**DUP-5**	SM 2320B	761998		
50359034003	**AP-9A**	SM 2320B	761998		
50359034001	**AP-9I**	SM 2540C	762490		
50359034002	**DUP-5**	SM 2540C	762490		
50359034003	**AP-9A**	SM 2540C	762490		
50359034001	**AP-9I**	SM 4500-H+B	763868		
50359034002	**DUP-5**	SM 4500-H+B	763868		
50359034003	**AP-9A**	SM 4500-H+B	763868		
50359034001	**AP-9I**	SM 4500-S2-D	761828		
50359034002	**DUP-5**	SM 4500-S2-D	761828		
50359034003	**AP-9A**	SM 4500-S2-D	761828		
50359034001	**AP-9I**	HACH 8146	762089		
50359034002	**DUP-5**	HACH 8146	762089		
50359034003	**AP-9A**	HACH 8146	762089		
50359034001	**AP-9I**	EPA 353.2	761711		
50359034002	**DUP-5**	EPA 353.2	761710		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359034

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359034003	**AP-9A**	EPA 353.2	761712		
50359034001	**AP-9I**	EPA 365.1	763542	EPA 365.1	763961
50359034002	**DUP-5**	EPA 365.1	763542	EPA 365.1	763961
50359034003	**AP-9A**	EPA 365.1	763542	EPA 365.1	763961
50359034001	**AP-9I**	SM 5310C	763082		
50359034002	**DUP-5**	SM 5310C	763082		
50359034003	**AP-9A**	SM 5310C	763082		
50359034001	**AP-9I**	SM 5310C	763583		
50359034002	**DUP-5**	SM 5310C	763583		
50359034003	**AP-9A**	SM 5310C	763583		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

50359034

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P4R3 Nov 2023	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:		Pace Profile #:	10498/53

Regulatory Agency	State / Location
	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO2, NO3 Wet	(Br, Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity*, Ferrous Iron, pH	TOC by 5310C	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum			Residual Chlorine (Y/N)	
	Requested Analysis Filtered (Y/N)																						Y			Y							
1	AP-9I	WT	G	11/7	12:20				11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓						
2	DUP 5	WT	G	11/7					11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓						
3	AP-9A	WT	G	11/7	1325				11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓						
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
* Metals: 6010 (B, Cd, Fe, Pb, Mo, Ca, Mg, Na, K, Li, sila) (11)	Mohammed Bazlamit	11/07/23	15:00	Jax Williams	11-8	-80				
6020 (Al, Mn, Co, As, Se, Ba) (6)	Jax Williams	11-8	10:95	[signature]	11-8-23	10:45	ice	Y	N	Y
** Dissolved FF 6010 (B, Fe, Mo, Mg, K, Li) (6) FF 6020 (Al, Mn) (2)							SCUR			
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	Carsen Clouser		
SIGNATURE of SAMPLER:	Carsen Clouser	DATE Signed:	11/7/2023

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

F-IN-Q-290-rev.23, 26Jun2023

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: BC 11-8-23 12:06

1. **Courier:** ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☐ Yes ☑ No

(If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H

4. **Cooler Temperature(s):** See | Comments | | | **(Initial/Corrected)** RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis: NO3	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A ✓
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS: Temps: 0.6/0.6, 1.0/1.0, 1.5/1.5, 0.3/0.3, 0.4/0.4, 0.6/0.6, 0.5/0.5, 0.4/0.4, 0.2/0.2

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1												1	1			2	1	2	1	1	1		1				WT	✓	✓		✓
2												1	1			1	1	1	1	1	1		1				WT	1	1		1
3												1	1			1	1	1	1	1	1		1				WT	1	1		1
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial
DG9P	40mL TSP amber vial
DG9S	40mL H2SO4 amber vial
DG9T	40mL Na Thio amber vial
DG9U	40mL unpreserved amber vial
VG9H	40mL HCl clear vial
VG9T	40mL Na Thio. clear vial
VG9U	40mL unpreserved clear vial
I	40mL w/hexane wipe vial
WGKU	8oz unpreserved clear jar
WGFU	4oz clear soil jar
JGFU	4oz unpreserved amber wide
CG3H	250mL clear glass HCl
CG3F	250mL clear glass HCl, Field Filter
BG1H	1L HCl clear glass
BG1S	1L H2SO4 clear glass
BG1T	glass
BG1U	1L unpreserved glass
CG3U	250mL Unpres Clear Glass
AG0U	100mL unpres amber glass
AG1H	1L HCl amber glass
AG1S	1L H2SO4 amber glass
AG1T	1L Na Thiosulfate amber glass
AG1U	1liter unpres amber glass
AG2N	500mL HNO3 amber glass
AG2S	500mL H2SO4 amber glass
AG2U	500mL unpres amber glass
AG3S	250mL H2SO4 amber glass
AG3SF	250mL H2SO4 amb glass -field filtered
AG3U	250mL unpres amber glass
AG3B	250mL NaOH amber glass

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP3R	250mL Unpres. FF SO4/OH buffer
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 08, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 08, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50359039001	**MW-36A**	Water	11/07/23 09:40	11/08/23 10:45
50359039002	**MW-36B**	Water	11/07/23 09:40	11/08/23 10:45

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50359039001	**MW-36A**	EPA 9056	KBB	4	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	RJP	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359039002	**MW-36B**	EPA 9056	KBB	4	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	RJP	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359039001	**MW-36A**					
EPA 9056	Bromide	0.071	mg/L	0.050	11/15/23 22:12	
EPA 9056	Chloride	8.2	mg/L	0.25	11/15/23 22:12	
EPA 9056	Sulfate	333	mg/L	2.5	11/15/23 22:29	
EPA 6010	Boron	1150	ug/L	100	11/16/23 21:26	
EPA 6010	Calcium	152000	ug/L	1000	11/16/23 21:26	
EPA 6010	Iron	5780	ug/L	100	11/16/23 21:26	
EPA 6010	Magnesium	43200	ug/L	1000	11/16/23 21:26	
EPA 6010	Potassium	1580	ug/L	1000	11/16/23 21:26	
EPA 6010	Silica	13200	ug/L	450	11/16/23 21:26	N2
EPA 6010	Sodium	8400	ug/L	1000	11/16/23 21:26	
EPA 6010	Boron, Dissolved	1070	ug/L	100	11/16/23 14:49	
EPA 6010	Iron, Dissolved	5560	ug/L	100	11/16/23 14:49	
EPA 6010	Magnesium, Dissolved	42400	ug/L	1000	11/16/23 14:49	
EPA 6010	Potassium, Dissolved	1670	ug/L	1000	11/16/23 14:49	
EPA 6020	Aluminum	53.9	ug/L	10.0	11/14/23 06:49	
EPA 6020	Arsenic	1.1	ug/L	1.0	11/14/23 06:49	
EPA 6020	Barium	43.1	ug/L	1.0	11/14/23 06:49	
EPA 6020	Manganese	383	ug/L	5.0	11/14/23 06:46	
EPA 6020	Manganese, Dissolved	384	ug/L	3.0	11/11/23 01:40	
EPA 903.1	Radium-226	-0.252 ± 0.429 (1.00) C:NA T:84%	pCi/L		12/01/23 11:52	
EPA 904.0	Radium-228	0.595 ± 0.359 (0.650) C:83% T:84%	pCi/L		11/22/23 11:45	
Total Radium Calculation	Total Radium	0.595 ± 0.788 (1.65)	pCi/L		12/04/23 13:53	
SM 2320B	Alkalinity, Total as CaCO3	228	mg/L	10.0	11/09/23 21:57	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	228	mg/L	10.0	11/09/23 21:57	
SM 2540C	Total Dissolved Solids	735	mg/L	10.0	11/13/23 14:47	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	11/20/23 00:42	H3
EPA 365.1	Phosphate as P04	0.42	mg/L	0.15	11/19/23 19:28	
SM 5310C	Total Organic Carbon	1.0	mg/L	1.0	11/17/23 19:41	
SM 5310C	Dissolved Organic Carbon	2.1	mg/L	1.0	11/18/23 02:16	
50359039002	**MW-36B**					
EPA 9056	Chloride	3.6	mg/L	0.25	11/16/23 02:25	
EPA 9056	Sulfate	18.0	mg/L	0.25	11/16/23 02:25	
EPA 6010	Calcium	102000	ug/L	1000	11/16/23 21:28	
EPA 6010	Magnesium	32100	ug/L	1000	11/16/23 21:28	
EPA 6010	Silica	15200	ug/L	450	11/16/23 21:28	N2
EPA 6010	Sodium	2970	ug/L	1000	11/16/23 21:28	
EPA 6010	Magnesium, Dissolved	31600	ug/L	1000	11/16/23 14:54	
EPA 6020	Aluminum	33.2	ug/L	10.0	11/14/23 06:42	
EPA 6020	Barium	82.2	ug/L	1.0	11/14/23 06:42	
EPA 6020	Manganese	5.2	ug/L	1.0	11/14/23 06:42	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359039002	**MW-36B**					
EPA 6020	Selenium	1.4	ug/L	1.0	11/14/23 06:42	
EPA 6020	Manganese, Dissolved	3.1	ug/L	1.0	11/11/23 03:47	
EPA 903.1	Radium-226	0.000 ± 0.501 (0.996) C:NA T:84%	pCi/L		12/01/23 11:52	
EPA 904.0	Radium-228	0.934 ± 0.426 (0.697) C:84% T:84%	pCi/L		11/22/23 11:45	
Total Radium Calculation	Total Radium	0.934 ± 0.927 (1.69)	pCi/L		12/04/23 13:53	
SM 2320B	Alkalinity, Total as CaCO3	331	mg/L	10.0	11/09/23 21:57	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	331	mg/L	10.0	11/09/23 21:57	
SM 2540C	Total Dissolved Solids	398	mg/L	10.0	11/13/23 14:48	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	11/20/23 00:43	H3
EPA 353.2	Nitrogen, Nitrate	8.2	mg/L	0.50	11/09/23 02:21	
SM 5310C	Dissolved Organic Carbon	1.4	mg/L	1.0	11/18/23 02:26	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

Sample: MW-36A **Lab ID: 50359039001** Collected: 11/07/23 09:40 Received: 11/08/23 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.071**	mg/L	0.050	0.0090	1		11/15/23 22:12	24959-67-9	
Chloride	**8.2**	mg/L	0.25	0.067	1		11/15/23 22:12	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/15/23 22:12	16984-48-8	
Sulfate	**333**	mg/L	2.5	1.9	10		11/15/23 22:29	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**1150**	ug/L	100	6.2	1	11/14/23 08:09	11/16/23 21:26	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/14/23 08:09	11/16/23 21:26	7440-43-9	
Calcium	**152000**	ug/L	1000	67.7	1	11/14/23 08:09	11/16/23 21:26	7440-70-2	
Iron	**5780**	ug/L	100	30.0	1	11/14/23 08:09	11/16/23 21:26	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	11/14/23 08:09	11/16/23 21:26	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/14/23 08:09	11/16/23 21:26	7439-93-2	
Magnesium	**43200**	ug/L	1000	33.6	1	11/14/23 08:09	11/16/23 21:26	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	11/14/23 08:09	11/16/23 21:26	7439-98-7	
Potassium	**1580**	ug/L	1000	97.8	1	11/14/23 08:09	11/16/23 21:26	7440-09-7	
Silica	**13200**	ug/L	450		1	11/14/23 08:09	11/16/23 21:26	7631-86-9	N2
Sodium	**8400**	ug/L	1000	54.8	1	11/14/23 08:09	11/16/23 21:26	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1070**	ug/L	100	11.4	1	11/14/23 16:35	11/16/23 14:49	7440-42-8	
Iron, Dissolved	**5560**	ug/L	100	18.1	1	11/14/23 16:35	11/16/23 14:49	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	11/14/23 16:35	11/16/23 14:49	7439-93-2	
Magnesium, Dissolved	**42400**	ug/L	1000	32.8	1	11/14/23 16:35	11/16/23 14:49	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	11/14/23 16:35	11/16/23 14:49	7439-98-7	
Potassium, Dissolved	**1670**	ug/L	1000	120	1	11/14/23 16:35	11/16/23 14:49	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**53.9**	ug/L	10.0	2.3	1	11/13/23 07:41	11/14/23 06:49	7429-90-5	
Arsenic	**1.1**	ug/L	1.0	0.075	1	11/13/23 07:41	11/14/23 06:49	7440-38-2	
Barium	**43.1**	ug/L	1.0	0.077	1	11/13/23 07:41	11/14/23 06:49	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/13/23 07:41	11/14/23 06:49	7440-48-4	
Manganese	**383**	ug/L	5.0	0.84	5	11/13/23 07:41	11/14/23 06:46	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	11/13/23 07:41	11/14/23 06:49	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/10/23 07:10	11/11/23 03:43	7429-90-5	
Manganese, Dissolved	**384**	ug/L	3.0	0.55	3	11/10/23 07:10	11/11/23 01:40	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

Sample: MW-36A **Lab ID: 50359039001** Collected: 11/07/23 09:40 Received: 11/08/23 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**228**	mg/L	10.0	10.0	1		11/09/23 21:57		
Alkalinity,Bicarbonate (CaCO3)	**228**	mg/L	10.0	10.0	1		11/09/23 21:57		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/09/23 21:57		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**735**	mg/L	10.0	10.0	1		11/13/23 14:47		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.7**	Std. Units	0.10	0.10	1		11/20/23 00:42		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/09/23 14:48	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/10/23 14:30	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/08/23 23:15	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/08/23 23:15	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.42**	mg/L	0.15	0.15	1	11/17/23 13:00	11/19/23 19:28		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.0**	mg/L	1.0	0.24	1		11/17/23 19:41	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.1**	mg/L	1.0	0.24	1		11/18/23 02:16		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

Sample: MW-36B **Lab ID: 50359039002** Collected: 11/07/23 09:40 Received: 11/08/23 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	ND	mg/L	0.050	0.0090	1		11/16/23 02:25	24959-67-9	
Chloride	**3.6**	mg/L	0.25	0.067	1		11/16/23 02:25	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/16/23 02:25	16984-48-8	
Sulfate	**18.0**	mg/L	0.25	0.19	1		11/16/23 02:25	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	ND	ug/L	100	6.2	1	11/14/23 08:09	11/16/23 21:28	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/14/23 08:09	11/16/23 21:28	7440-43-9	
Calcium	**102000**	ug/L	1000	67.7	1	11/14/23 08:09	11/16/23 21:28	7440-70-2	
Iron	ND	ug/L	100	30.0	1	11/14/23 08:09	11/16/23 21:28	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	11/14/23 08:09	11/16/23 21:28	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/14/23 08:09	11/16/23 21:28	7439-93-2	
Magnesium	**32100**	ug/L	1000	33.6	1	11/14/23 08:09	11/16/23 21:28	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	11/14/23 08:09	11/16/23 21:28	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	11/14/23 08:09	11/16/23 21:28	7440-09-7	
Silica	**15200**	ug/L	450		1	11/14/23 08:09	11/16/23 21:28	7631-86-9	N2
Sodium	**2970**	ug/L	1000	54.8	1	11/14/23 08:09	11/16/23 21:28	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	ND	ug/L	100	11.4	1	11/14/23 16:35	11/16/23 14:54	7440-42-8	
Iron, Dissolved	ND	ug/L	100	18.1	1	11/14/23 16:35	11/16/23 14:54	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	11/14/23 16:35	11/16/23 14:54	7439-93-2	
Magnesium, Dissolved	**31600**	ug/L	1000	32.8	1	11/14/23 16:35	11/16/23 14:54	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	11/14/23 16:35	11/16/23 14:54	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	120	1	11/14/23 16:35	11/16/23 14:54	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**33.2**	ug/L	10.0	2.3	1	11/13/23 07:41	11/14/23 06:42	7429-90-5	
Arsenic	ND	ug/L	1.0	0.075	1	11/13/23 07:41	11/14/23 06:42	7440-38-2	
Barium	**82.2**	ug/L	1.0	0.077	1	11/13/23 07:41	11/14/23 06:42	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/13/23 07:41	11/14/23 06:42	7440-48-4	
Manganese	**5.2**	ug/L	1.0	0.17	1	11/13/23 07:41	11/14/23 06:42	7439-96-5	
Selenium	**1.4**	ug/L	1.0	0.20	1	11/13/23 07:41	11/14/23 06:42	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/10/23 07:10	11/11/23 03:47	7429-90-5	
Manganese, Dissolved	**3.1**	ug/L	1.0	0.18	1	11/10/23 07:10	11/11/23 03:47	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

Sample: MW-36B **Lab ID: 50359039002** Collected: 11/07/23 09:40 Received: 11/08/23 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**331**	mg/L	10.0	10.0	1		11/09/23 21:57		
Alkalinity,Bicarbonate (CaCO3)	**331**	mg/L	10.0	10.0	1		11/09/23 21:57		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/09/23 21:57		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**398**	mg/L	10.0	10.0	1		11/13/23 14:48		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.7**	Std. Units	0.10	0.10	1		11/20/23 00:43		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/09/23 14:48	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/10/23 14:30	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**8.2**	mg/L	0.50	0.055	5		11/09/23 02:21	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.50	0.020	5		11/09/23 02:21	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/17/23 13:00	11/19/23 19:29		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.24	1		11/17/23 20:06	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.4**	mg/L	1.0	0.24	1		11/18/23 02:26		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

QC Batch: 762556
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359039001, 50359039002

METHOD BLANK: 3495366 Matrix: Water
Associated Lab Samples: 50359039001, 50359039002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	11/15/23 09:23	
Chloride	mg/L	ND	0.25	0.067	11/15/23 09:23	
Fluoride	mg/L	ND	0.10	0.017	11/15/23 09:23	
Sulfate	mg/L	ND	0.25	0.19	11/15/23 09:23	

LABORATORY CONTROL SAMPLE: 3495367

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.99	99	80-120	
Chloride	mg/L	2.5	2.4	96	80-120	
Fluoride	mg/L	1	0.99	99	80-120	
Sulfate	mg/L	5	4.7	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495368 3495369

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	0.56	1	1	1.5	1.5	98	97	80-120	1	15	
Chloride	mg/L	59.8	25	25	86.1	86.2	105	106	80-120	0	15	
Fluoride	mg/L	ND	1	1	0.96	0.94	95	93	80-120	2	15	
Sulfate	mg/L	1340	500	500	1840	1850	99	101	80-120	1	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

QC Batch: 762014
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359039001, 50359039002

METHOD BLANK: 3492970 Matrix: Water
Associated Lab Samples: 50359039001, 50359039002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	11/16/23 21:01	
Cadmium	ug/L	ND	2.0	0.60	11/16/23 21:01	
Calcium	ug/L	ND	1000	67.7	11/16/23 21:01	
Iron	ug/L	ND	100	30.0	11/16/23 21:01	
Lead	ug/L	ND	10.0	2.5	11/16/23 21:01	
Lithium	ug/L	ND	20.0	6.8	11/16/23 21:01	
Magnesium	ug/L	ND	1000	33.6	11/16/23 21:01	
Molybdenum	ug/L	ND	10.0	0.78	11/16/23 21:01	
Potassium	ug/L	ND	1000	97.8	11/16/23 21:01	
Silica	ug/L	ND	450		11/16/23 21:01	N2
Sodium	ug/L	ND	1000	54.8	11/16/23 21:01	

LABORATORY CONTROL SAMPLE: 3492971

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	965	97	80-120	
Cadmium	ug/L	1000	1010	101	80-120	
Calcium	ug/L	10000	10100	101	80-120	
Iron	ug/L	10000	9840	98	80-120	
Lead	ug/L	1000	946	95	80-120	
Lithium	ug/L	1000	1010	101	80-120	
Magnesium	ug/L	10000	9670	97	80-120	
Molybdenum	ug/L	1000	1030	103	80-120	
Potassium	ug/L	10000	9890	99	80-120	
Silica	ug/L	10700	10700	100	80-120	N2
Sodium	ug/L	10000	9880	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3492972 3492973

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	18900	1000	1000	19700	19200	77	36	75-125	2	20	P6
Cadmium	ug/L	ND	1000	1000	1030	1020	103	102	75-125	0	20	
Calcium	ug/L	590000	10000	10000	595000	580000	50	-97	75-125	3	20	P6
Iron	ug/L	10200	10000	10000	19600	19300	94	91	75-125	2	20	
Lead	ug/L	ND	1000	1000	892	887	89	89	75-125	1	20	
Lithium	ug/L	ND	1000	1000	1030	1040	103	103	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3492972 3492973

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Magnesium	ug/L	45700	10000	10000	54500	53400	88	77	75-125	2	20	
Molybdenum	ug/L	34.9	1000	1000	1060	1060	103	102	75-125	1	20	
Potassium	ug/L	3130	10000	10000	13400	13300	103	102	75-125	0	20	
Silica	ug/L	12300	10700	10700	23100	22800	101	98	75-125	1	20	N2
Sodium	ug/L	25500	10000	10000	34900	34500	94	90	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

QC Batch: 762755
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359039001, 50359039002

METHOD BLANK: 3496107 Matrix: Water
Associated Lab Samples: 50359039001, 50359039002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	11.4	11/16/23 14:20	
Iron, Dissolved	ug/L	ND	100	18.1	11/16/23 14:20	
Lithium, Dissolved	ug/L	ND	20.0	5.1	11/16/23 14:20	
Magnesium, Dissolved	ug/L	ND	1000	32.8	11/16/23 14:20	
Molybdenum, Dissolved	ug/L	ND	10.0	1.1	11/16/23 14:20	
Potassium, Dissolved	ug/L	ND	1000	120	11/16/23 14:20	

LABORATORY CONTROL SAMPLE: 3496108

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	932	93	80-120	
Iron, Dissolved	ug/L	10000	9720	97	80-120	
Lithium, Dissolved	ug/L	1000	987	99	80-120	
Magnesium, Dissolved	ug/L	10000	9380	94	80-120	
Molybdenum, Dissolved	ug/L	1000	1030	103	80-120	
Potassium, Dissolved	ug/L	10000	10100	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3496109 3496110

Parameter	Units	50358941020 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	3.7 mg/L	1000	1000	4550	4690	83	97	75-125	3	20	
Iron, Dissolved	ug/L	9.2 mg/L	10000	10000	18400	18800	93	97	75-125	2	20	
Lithium, Dissolved	ug/L	ND	1000	1000	992	1000	98	99	75-125	1	20	
Magnesium, Dissolved	ug/L	80.9 mg/L	10000	10000	87000	90000	61	90	75-125	3	20	P6
Molybdenum, Dissolved	ug/L	ND	1000	1000	1050	1050	104	105	75-125	1	20	
Potassium, Dissolved	ug/L	6.5 mg/L	10000	10000	16600	16900	101	104	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

QC Batch: 762360
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359039001, 50359039002

METHOD BLANK: 3494879 Matrix: Water
Associated Lab Samples: 50359039001, 50359039002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	2.3	11/14/23 04:30	
Arsenic	ug/L	ND	1.0	0.075	11/14/23 04:30	
Barium	ug/L	ND	1.0	0.077	11/14/23 04:30	
Cobalt	ug/L	ND	1.0	0.046	11/14/23 04:30	
Manganese	ug/L	ND	1.0	0.17	11/14/23 04:30	
Selenium	ug/L	ND	1.0	0.20	11/14/23 04:30	

LABORATORY CONTROL SAMPLE: 3494880

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	395	99	80-120	
Arsenic	ug/L	40	38.8	97	80-120	
Barium	ug/L	40	39.3	98	80-120	
Cobalt	ug/L	40	41.4	103	80-120	
Manganese	ug/L	40	40.8	102	80-120	
Selenium	ug/L	40	39.5	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3494881 3494882

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	23.5	400	400	415	408	98	96	75-125	2	20	
Arsenic	ug/L	ND	40	40	38.4	38.3	95	95	75-125	0	20	
Barium	ug/L	22.5	40	40	59.7	59.4	93	92	75-125	0	20	
Cobalt	ug/L	ND	40	40	39.7	39.9	98	98	75-125	1	20	
Manganese	ug/L	1500	40	40	1530	1540	69	87	75-125	0	20	P6
Selenium	ug/L	ND	40	40	40.0	40.4	100	100	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

QC Batch: 761945
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359039001, 50359039002

METHOD BLANK: 3492364 Matrix: Water
Associated Lab Samples: 50359039001, 50359039002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.8	11/11/23 00:28	
Manganese, Dissolved	ug/L	ND	1.0	0.18	11/11/23 00:28	

LABORATORY CONTROL SAMPLE: 3492365

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	392	98	80-120	
Manganese, Dissolved	ug/L	40	41.5	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3492366 3492367

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	361	371	90	92	75-125	3	20	
Manganese, Dissolved	ug/L	1490	40	40	1530	1530	86	89	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

QC Batch: 761987
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359039001, 50359039002

METHOD BLANK: 3492794 Matrix: Water
Associated Lab Samples: 50359039001, 50359039002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/09/23 21:57	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/09/23 21:57	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/09/23 21:57	

LABORATORY CONTROL SAMPLE: 3492795

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.5	97	90-110	

SAMPLE DUPLICATE: 3492796

Parameter	Units	50358873001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	216	219	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	203	206	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	13.2	12.8	3	20	

SAMPLE DUPLICATE: 3492797

Parameter	Units	50359028002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	128	127	0	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	128	127	0	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

QC Batch: 762490
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359039001, 50359039002

METHOD BLANK: 3495174 Matrix: Water
Associated Lab Samples: 50359039001, 50359039002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/13/23 14:45	

LABORATORY CONTROL SAMPLE: 3495175

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	277	92	80-120	

SAMPLE DUPLICATE: 3495176

Parameter	Units	50359028002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2430	2350	4	10	

SAMPLE DUPLICATE: 3495177

Parameter	Units	50359053007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	430	430	0	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

QC Batch: 763868
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359039001, 50359039002

SAMPLE DUPLICATE: 3501761

Parameter	Units	50357998001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.3	1	2	H3

SAMPLE DUPLICATE: 3501762

Parameter	Units	50359731001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.7	6.7	0	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

QC Batch: 761828
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359039001, 50359039002

METHOD BLANK: 3491789 Matrix: Water
Associated Lab Samples: 50359039001, 50359039002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/09/23 14:48	

LABORATORY CONTROL SAMPLE: 3491790

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3491791 3491792

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.29	0.32	58	65	90-110	11	20	M3

MATRIX SPIKE SAMPLE: 3491793

Parameter	Units	50359039001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.47	92	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

QC Batch: 762089
QC Batch Method: HACH 8146
Analysis Method: HACH 8146
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359039001, 50359039002

METHOD BLANK: 3493307 Matrix: Water
Associated Lab Samples: 50359039001, 50359039002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/10/23 13:59	H3,N2

LABORATORY CONTROL SAMPLE: 3493308

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	101	90-110	H3,N2

MATRIX SPIKE SAMPLE: 3493309

Parameter	Units	50359039002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.1	106	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3493310 3493311

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	2.4	25	25	27.0	27.3	99	100	90-110	1	20	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

QC Batch: 761710
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359039001, 50359039002

METHOD BLANK: 3491352 Matrix: Water
Associated Lab Samples: 50359039001, 50359039002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/08/23 22:45	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/08/23 22:45	

LABORATORY CONTROL SAMPLE: 3491353

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	101	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	102	90-110	

MATRIX SPIKE SAMPLE: 3491354

Parameter	Units	50358941017 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	0.49	1	1.4	96	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3491355 3491356

Parameter	Units	50358941002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.0	1.0	101	101	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	102	102	90-110	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

QC Batch: 763542
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359039001, 50359039002

METHOD BLANK: 3500003 Matrix: Water
Associated Lab Samples: 50359039001, 50359039002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	11/19/23 19:55	

LABORATORY CONTROL SAMPLE: 3500004

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3500005 3500006

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	0.41			1.8	1.9				3		

MATRIX SPIKE SAMPLE: 3500007

Parameter	Units	50359017001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	0.90		2.4			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

QC Batch: 763562
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359039001, 50359039002

METHOD BLANK: 3500074 Matrix: Water
Associated Lab Samples: 50359039001, 50359039002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	11/17/23 14:10	

LABORATORY CONTROL SAMPLE: 3500075

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.5	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3500076 3500077

Parameter	Units	50358482005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	1.7	20	20	20.4	20.7	94	95	80-120	1	20	

MATRIX SPIKE SAMPLE: 3500078

Parameter	Units	50358484005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	2.9	20	22.3	97	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

QC Batch: 763583
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359039001, 50359039002

METHOD BLANK: 3500186 Matrix: Water
Associated Lab Samples: 50359039001, 50359039002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	11/18/23 00:01	

LABORATORY CONTROL SAMPLE: 3500187

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3500188 3500189

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.0	10	10	11.6	11.7	96	97	80-120	1	20	

MATRIX SPIKE SAMPLE: 3500190

Parameter	Units	50359034001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	2.9	10	12.6	97	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

Sample: MW-36A **Lab ID: 50359039001** Collected: 11/07/23 09:40 Received: 11/08/23 10:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.252 ± 0.429 (1.00) C:NA T:84%**	pCi/L	12/01/23 11:52	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.595 ± 0.359 (0.650) C:83% T:84%**	pCi/L	11/22/23 11:45	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.595 ± 0.788 (1.65)**	pCi/L	12/04/23 13:53	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

Sample: MW-36B **Lab ID: 50359039002** Collected: 11/07/23 09:40 Received: 11/08/23 10:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.000 ± 0.501 (0.996) C:NA T:84%**	pCi/L	12/01/23 11:52	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.934 ± 0.426 (0.697) C:84% T:84%**	pCi/L	11/22/23 11:45	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.934 ± 0.927 (1.69)**	pCi/L	12/04/23 13:53	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

QC Batch: 629389
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359039001, 50359039002

METHOD BLANK: 3068340 Matrix: Water
Associated Lab Samples: 50359039001, 50359039002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.395 ± 0.313 (0.616) C:86% T:88%	pCi/L	11/22/23 11:45	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

QC Batch: 629387
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359039001, 50359039002

METHOD BLANK: 3068339 Matrix: Water
Associated Lab Samples: 50359039001, 50359039002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.469 ± 0.367 (0.431) C:NA T:88%	pCi/L	12/01/23 11:52	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359039

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359039001	**MW-36A**	EPA 9056	762556		
50359039002	**MW-36B**	EPA 9056	762556		
50359039001	**MW-36A**	EPA 3010	762014	EPA 6010	763497
50359039002	**MW-36B**	EPA 3010	762014	EPA 6010	763497
50359039001	**MW-36A**	EPA 3010	762755	EPA 6010	763398
50359039002	**MW-36B**	EPA 3010	762755	EPA 6010	763398
50359039001	**MW-36A**	EPA 200.2	762360	EPA 6020	762608
50359039002	**MW-36B**	EPA 200.2	762360	EPA 6020	762608
50359039001	**MW-36A**	EPA 200.2	761945	EPA 6020	762232
50359039002	**MW-36B**	EPA 200.2	761945	EPA 6020	762232
50359039001	**MW-36A**	EPA 903.1	629387		
50359039002	**MW-36B**	EPA 903.1	629387		
50359039001	**MW-36A**	EPA 904.0	629389		
50359039002	**MW-36B**	EPA 904.0	629389		
50359039001	**MW-36A**	Total Radium Calculation	633600		
50359039002	**MW-36B**	Total Radium Calculation	633600		
50359039001	**MW-36A**	SM 2320B	761987		
50359039002	**MW-36B**	SM 2320B	761987		
50359039001	**MW-36A**	SM 2540C	762490		
50359039002	**MW-36B**	SM 2540C	762490		
50359039001	**MW-36A**	SM 4500-H+B	763868		
50359039002	**MW-36B**	SM 4500-H+B	763868		
50359039001	**MW-36A**	SM 4500-S2-D	761828		
50359039002	**MW-36B**	SM 4500-S2-D	761828		
50359039001	**MW-36A**	HACH 8146	762089		
50359039002	**MW-36B**	HACH 8146	762089		
50359039001	**MW-36A**	EPA 353.2	761710		
50359039002	**MW-36B**	EPA 353.2	761710		
50359039001	**MW-36A**	EPA 365.1	763542	EPA 365.1	763961
50359039002	**MW-36B**	EPA 365.1	763542	EPA 365.1	763961
50359039001	**MW-36A**	SM 5310C	763562		
50359039002	**MW-36B**	SM 5310C	763562		
50359039001	**MW-36A**	SM 5310C	763583		
50359039002	**MW-36B**	SM 5310C	763583		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical®
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P4R4 Nov 2023	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:		Pace Profile #:	10498/53

Regulatory Agency	State / Location
	IN

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO2, NO3 Wet	(Br, Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered** (Y)	Alkalinity*, Ferrous Iron, pH	TOC by 5310C	DOC by 5310C (Y)	Sulfide	Phosphate	Rad-226/228 + Sum	Residual Chlorine (Y/N)	50359039
1	MW-36A	WT	G	11/7	9:40				11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	001
2	MW-36B	WT	G	11/7	9:40				11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	002
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
* Metals: 6010 (B, Cd, Fe, Pb, Mo, Ca, Mg, Na, K, Li, sila) (11)	Mohammed Bazlamit	11/7/23	1500	Jay Williams	11-8	8:00				
6020 (Al, Mn, Co, As, Se, Ba) (6)	Jay Williams	11-8	1045		11-9-23	10:45	See SCMR	y	N	y
** Dissolved FF 6010 (B, Fe, Mo, Mg, K, Li) (6) FF 6020 (Al, Mn) (2)										
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE					
PRINT Name of SAMPLER:	Mohammed Bazlamit		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
SIGNATURE of SAMPLER:		DATE Signed: 11/07/23				

F-IN-Q-290-rev.23, 26Jun2023

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: BC 11-8-23 12:06

1. **Courier:** ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☐ Yes ☑ No

(If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H

4. **Cooler Temperature(s):** See | Comments | | | **(Initial/Corrected)** **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**

5. **Packing Material:** ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓
Short Hold Time Analysis (48 hours or less)? **Analysis:** NO_3	✓	
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 1529	
Rush TAT Requested (4 days or less):		✓
Custody Signatures Present?	✓	
Containers Intact?:	✓	
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓	
Extra labels on Terracore Vials? (soils only)		

	Yes	No	N/A
All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** ~~HNO3 (<2)~~ ~~H2SO4 (<2)~~ NaOH (>10) ~~NaOH/ZnAc (>9)~~ Any non-conformance to pH recommendations will be noted on the container count form	✓		
	Present	Absent	N/A ✓
Residual Chlorine Check (SVOC 625 Pest/PCB 608)			
Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Headspace Wisconsin Sulfide?			✓
	Present	Absent	No VOA Vials Sent
Headspace in VOA Vials (>6mm): See Containter Count form for details			✓
Trip Blank Present?		✓	
Trip Blank Custody Seals?:			✓

COMMENTS: Temps : 0.6/0.6 , 1.0/1.0 , 1.5/1.5 , 0.3/0.3 , 0.4/0.4 , 0.6/0.6 , 0.5/0.5 , 0.4/0.4 , 0.2/0.2

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/ZnAc >9
1												1	1			2	1	2	1	1	1		1				ω	✓	✓		✓
2												1	1			1	1	1	1	1	1		1				1	1	1		1
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 12, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 08, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50359042001	**AP-2BO**	Water	11/07/23 12:00	11/08/23 10:45
50359042002	**AP-2A**	Water	11/07/23 14:42	11/08/23 10:45
50359042003	**AP-3A**	Water	11/07/23 17:30	11/08/23 10:45
50359042004	**DUP-3**	Water	11/07/23 16:25	11/08/23 10:45
50359042005	**FB-3**	Water	11/07/23 16:25	11/08/23 10:45

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50359042001	**AP-2BO**	EPA 9056	KBB	1	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 6020	MGM	2	PASI-I
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359042002	**AP-2A**	EPA 9056	KBB	1	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 6020	MGM	3	PASI-I
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359042003	**AP-3A**	EPA 9056	KBB	1	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 6020	MGM	2	PASI-I
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359042004	**DUP-3**	EPA 9056	KBB	1	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 6020	MGM	2	PASI-I
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359042005	**FB-3**	EPA 9056	KBB	1	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6020	CAW	2	PASI-I
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359042001	**AP-2BO**					
EPA 9056	Bromide	3.3	mg/L	0.050	11/16/23 02:42	
EPA 6010	Iron	220	ug/L	100	11/16/23 21:29	
EPA 6010	Magnesium	28800	ug/L	1000	11/16/23 21:29	
EPA 6010	Potassium	9870	ug/L	1000	11/16/23 21:29	
EPA 6010	Silica	12800	ug/L	450	11/16/23 21:29	N2
EPA 6010	Sodium	31300	ug/L	1000	11/16/23 21:29	
EPA 6010	Boron, Dissolved	17400	ug/L	100	11/16/23 14:55	
EPA 6010	Iron, Dissolved	172	ug/L	100	11/16/23 14:55	
EPA 6010	Magnesium, Dissolved	28000	ug/L	1000	11/16/23 14:55	
EPA 6010	Molybdenum, Dissolved	480	ug/L	10.0	11/16/23 14:55	
EPA 6010	Potassium, Dissolved	10300	ug/L	1000	11/16/23 14:55	
EPA 6020	Manganese	2100	ug/L	20.0	11/14/23 06:59	
EPA 6020	Manganese, Dissolved	2520	ug/L	20.0	11/11/23 01:52	
SM 2320B	Alkalinity, Total as CaCO3	171	mg/L	10.0	11/09/23 23:59	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	171	mg/L	10.0	11/09/23 23:59	
SM 2540C	Total Dissolved Solids	2270	mg/L	20.0	11/13/23 14:48	
EPA 365.1	Phosphate as P04	0.17	mg/L	0.15	11/19/23 19:32	
SM 5310C	Total Organic Carbon	3.2	mg/L	1.0	11/18/23 10:42	
SM 5310C	Dissolved Organic Carbon	4.0	mg/L	1.0	11/18/23 02:43	
50359042002	**AP-2A**					
EPA 9056	Bromide	10.3	mg/L	0.50	11/17/23 03:10	
EPA 6010	Iron	4370	ug/L	100	11/16/23 21:30	
EPA 6010	Magnesium	9790	ug/L	1000	11/16/23 21:30	
EPA 6010	Potassium	44700	ug/L	1000	11/16/23 21:30	
EPA 6010	Silica	8800	ug/L	450	11/16/23 21:30	N2
EPA 6010	Sodium	43800	ug/L	1000	11/16/23 21:30	
EPA 6010	Boron, Dissolved	21800	ug/L	100	11/16/23 14:57	
EPA 6010	Iron, Dissolved	4370	ug/L	100	11/16/23 14:57	
EPA 6010	Lithium, Dissolved	76.4	ug/L	20.0	11/16/23 14:57	
EPA 6010	Magnesium, Dissolved	9660	ug/L	1000	11/16/23 14:57	
EPA 6010	Molybdenum, Dissolved	808	ug/L	10.0	11/16/23 14:57	
EPA 6010	Potassium, Dissolved	46400	ug/L	1000	11/16/23 14:57	
EPA 6020	Manganese	1050	ug/L	10.0	11/14/23 07:09	
EPA 6020	Arsenic, Dissolved	1780	ug/L	10.0	11/11/23 01:56	
EPA 6020	Manganese, Dissolved	1060	ug/L	10.0	11/11/23 01:56	
SM 2320B	Alkalinity, Total as CaCO3	54.2	mg/L	10.0	11/09/23 23:59	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	54.2	mg/L	10.0	11/09/23 23:59	
SM 2540C	Total Dissolved Solids	2870	mg/L	40.0	11/13/23 14:48	
SM 4500-S2-D	Sulfide	0.12	mg/L	0.10	11/09/23 14:48	
HACH 8146	Iron, Ferrous	0.67	mg/L	0.20	11/10/23 16:36	H3,N2
EPA 365.1	Phosphate as P04	2.4	mg/L	0.15	11/19/23 19:39	
SM 5310C	Total Organic Carbon	4.3	mg/L	1.0	11/18/23 11:02	
SM 5310C	Dissolved Organic Carbon	5.6	mg/L	2.0	11/18/23 02:54	
50359042003	**AP-3A**					
EPA 9056	Bromide	9.8	mg/L	0.50	11/17/23 03:27	
EPA 6010	Iron	8000	ug/L	100	11/16/23 21:35	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359042003	**AP-3A**					
EPA 6010	Magnesium	32000	ug/L	1000	11/16/23 21:35	
EPA 6010	Potassium	16400	ug/L	1000	11/16/23 21:35	
EPA 6010	Silica	12700	ug/L	450	11/16/23 21:35	N2
EPA 6010	Sodium	50700	ug/L	1000	11/16/23 21:35	
EPA 6010	Boron, Dissolved	28200	ug/L	100	11/16/23 14:58	
EPA 6010	Iron, Dissolved	7680	ug/L	100	11/16/23 14:58	
EPA 6010	Magnesium, Dissolved	31200	ug/L	1000	11/16/23 14:58	
EPA 6010	Molybdenum, Dissolved	562	ug/L	10.0	11/16/23 14:58	
EPA 6010	Potassium, Dissolved	16500	ug/L	1000	11/16/23 14:58	
EPA 6020	Aluminum	27.3	ug/L	10.0	11/14/23 16:14	
EPA 6020	Manganese	2730	ug/L	20.0	11/14/23 07:23	
EPA 6020	Manganese, Dissolved	2770	ug/L	25.0	11/11/23 02:00	
SM 2320B	Alkalinity, Total as CaCO3	64.2	mg/L	10.0	11/09/23 23:59	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	64.2	mg/L	10.0	11/09/23 23:59	
SM 2540C	Total Dissolved Solids	2820	mg/L	40.0	11/13/23 14:49	
HACH 8146	Iron, Ferrous	3.0	mg/L	1.0	11/10/23 16:37	H3,N2
EPA 365.1	Phosphate as P04	0.20	mg/L	0.15	11/19/23 19:40	
SM 5310C	Total Organic Carbon	2.5	mg/L	1.0	11/18/23 11:23	
SM 5310C	Dissolved Organic Carbon	4.9	mg/L	1.0	11/18/23 03:25	
50359042004	**DUP-3**					
EPA 9056	Bromide	9.8	mg/L	0.50	11/17/23 03:44	
EPA 6010	Iron	7790	ug/L	100	11/16/23 21:36	
EPA 6010	Magnesium	31300	ug/L	1000	11/16/23 21:36	
EPA 6010	Potassium	16000	ug/L	1000	11/16/23 21:36	
EPA 6010	Silica	12500	ug/L	450	11/16/23 21:36	N2
EPA 6010	Sodium	49900	ug/L	1000	11/16/23 21:36	
EPA 6010	Boron, Dissolved	28200	ug/L	100	11/16/23 15:00	
EPA 6010	Iron, Dissolved	7620	ug/L	100	11/16/23 15:00	
EPA 6010	Magnesium, Dissolved	31200	ug/L	1000	11/16/23 15:00	
EPA 6010	Molybdenum, Dissolved	565	ug/L	10.0	11/16/23 15:00	
EPA 6010	Potassium, Dissolved	16500	ug/L	1000	11/16/23 15:00	
EPA 6020	Aluminum	21.5	ug/L	10.0	11/14/23 16:17	
EPA 6020	Manganese	2830	ug/L	20.0	11/14/23 07:32	
EPA 6020	Manganese, Dissolved	2720	ug/L	20.0	11/14/23 19:00	
SM 2320B	Alkalinity, Total as CaCO3	63.8	mg/L	10.0	11/09/23 23:59	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	63.8	mg/L	10.0	11/09/23 23:59	
SM 2540C	Total Dissolved Solids	2860	mg/L	40.0	11/13/23 14:49	
HACH 8146	Iron, Ferrous	2.7	mg/L	1.0	11/10/23 16:37	H3,N2
EPA 365.1	Phosphate as P04	0.24	mg/L	0.15	11/19/23 19:40	
SM 5310C	Total Organic Carbon	2.5	mg/L	1.0	11/18/23 12:02	
SM 5310C	Dissolved Organic Carbon	3.2	mg/L	1.0	11/18/23 03:38	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

Sample: AP-2BO **Lab ID: 50359042001** Collected: 11/07/23 12:00 Received: 11/08/23 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056								
	Pace Analytical Services - Indianapolis								
Bromide	**3.3**	mg/L	0.050	0.0090	1		11/16/23 02:42	24959-67-9	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Iron	**220**	ug/L	100	30.0	1	11/14/23 08:09	11/16/23 21:29	7439-89-6	
Magnesium	**28800**	ug/L	1000	33.6	1	11/14/23 08:09	11/16/23 21:29	7439-95-4	
Potassium	**9870**	ug/L	1000	97.8	1	11/14/23 08:09	11/16/23 21:29	7440-09-7	
Silica	**12800**	ug/L	450		1	11/14/23 08:09	11/16/23 21:29	7631-86-9	N2
Sodium	**31300**	ug/L	1000	54.8	1	11/14/23 08:09	11/16/23 21:29	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Boron, Dissolved	**17400**	ug/L	100	11.4	1	11/14/23 16:35	11/16/23 14:55	7440-42-8	
Iron, Dissolved	**172**	ug/L	100	18.1	1	11/14/23 16:35	11/16/23 14:55	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	11/14/23 16:35	11/16/23 14:55	7439-93-2	
Magnesium, Dissolved	**28000**	ug/L	1000	32.8	1	11/14/23 16:35	11/16/23 14:55	7439-95-4	
Molybdenum, Dissolved	**480**	ug/L	10.0	1.1	1	11/14/23 16:35	11/16/23 14:55	7439-98-7	
Potassium, Dissolved	**10300**	ug/L	1000	120	1	11/14/23 16:35	11/16/23 14:55	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	2.3	1	11/13/23 07:41	11/14/23 07:03	7429-90-5	
Manganese	**2100**	ug/L	20.0	3.4	20	11/13/23 07:41	11/14/23 06:59	7439-96-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/10/23 07:10	11/11/23 03:59	7429-90-5	
Manganese, Dissolved	**2520**	ug/L	20.0	3.6	20	11/10/23 07:10	11/11/23 01:52	7439-96-5	
2320B Alkalinity	Analytical Method: SM 2320B								
	Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**171**	mg/L	10.0	10.0	1		11/09/23 23:59		
Alkalinity,Bicarbonate (CaCO3)	**171**	mg/L	10.0	10.0	1		11/09/23 23:59		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/09/23 23:59		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
	Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2270**	mg/L	20.0	20.0	1		11/13/23 14:48		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D								
	Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/09/23 14:48	18496-25-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

Sample: AP-2BO **Lab ID: 50359042001** Collected: 11/07/23 12:00 Received: 11/08/23 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/10/23 16:36	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/09/23 00:02	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/09/23 00:02	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.17**	mg/L	0.15	0.15	1	11/17/23 13:00	11/19/23 19:32		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**3.2**	mg/L	1.0	0.24	1		11/18/23 10:42	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**4.0**	mg/L	1.0	0.24	1		11/18/23 02:43		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

Sample: AP-2A **Lab ID: 50359042002** Collected: 11/07/23 14:42 Received: 11/08/23 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**10.3**	mg/L	0.50	0.090	10		11/17/23 03:10	24959-67-9	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Iron	**4370**	ug/L	100	30.0	1	11/14/23 08:09	11/16/23 21:30	7439-89-6	
Magnesium	**9790**	ug/L	1000	33.6	1	11/14/23 08:09	11/16/23 21:30	7439-95-4	
Potassium	**44700**	ug/L	1000	97.8	1	11/14/23 08:09	11/16/23 21:30	7440-09-7	
Silica	**8800**	ug/L	450		1	11/14/23 08:09	11/16/23 21:30	7631-86-9	N2
Sodium	**43800**	ug/L	1000	54.8	1	11/14/23 08:09	11/16/23 21:30	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**21800**	ug/L	100	11.4	1	11/14/23 16:35	11/16/23 14:57	7440-42-8	
Iron, Dissolved	**4370**	ug/L	100	18.1	1	11/14/23 16:35	11/16/23 14:57	7439-89-6	
Lithium, Dissolved	**76.4**	ug/L	20.0	5.1	1	11/14/23 16:35	11/16/23 14:57	7439-93-2	
Magnesium, Dissolved	**9660**	ug/L	1000	32.8	1	11/14/23 16:35	11/16/23 14:57	7439-95-4	
Molybdenum, Dissolved	**808**	ug/L	10.0	1.1	1	11/14/23 16:35	11/16/23 14:57	7439-98-7	
Potassium, Dissolved	**46400**	ug/L	1000	120	1	11/14/23 16:35	11/16/23 14:57	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	2.3	1	11/13/23 07:41	11/14/23 07:12	7429-90-5	
Manganese	**1050**	ug/L	10.0	1.7	10	11/13/23 07:41	11/14/23 07:09	7439-96-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/10/23 07:10	11/11/23 04:03	7429-90-5	
Arsenic, Dissolved	**1780**	ug/L	10.0	1.0	10	11/10/23 07:10	11/11/23 01:56	7440-38-2	
Manganese, Dissolved	**1060**	ug/L	10.0	1.8	10	11/10/23 07:10	11/11/23 01:56	7439-96-5	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**54.2**	mg/L	10.0	10.0	1		11/09/23 23:59		
Alkalinity,Bicarbonate (CaCO3)	**54.2**	mg/L	10.0	10.0	1		11/09/23 23:59		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/09/23 23:59		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2870**	mg/L	40.0	40.0	1		11/13/23 14:48		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	**0.12**	mg/L	0.10	0.025	1		11/09/23 14:48	18496-25-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

Sample: AP-2A **Lab ID: 50359042002** Collected: 11/07/23 14:42 Received: 11/08/23 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**0.67**	mg/L	0.20	0.035	1		11/10/23 16:36	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/09/23 01:16	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/09/23 01:16	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**2.4**	mg/L	0.15	0.15	1	11/17/23 13:00	11/19/23 19:39		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**4.3**	mg/L	1.0	0.24	1		11/18/23 11:02	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**5.6**	mg/L	2.0	0.47	2		11/18/23 02:54		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

Sample: AP-3A **Lab ID: 50359042003** Collected: 11/07/23 17:30 Received: 11/08/23 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056								
	Pace Analytical Services - Indianapolis								
Bromide	**9.8**	mg/L	0.50	0.090	10		11/17/23 03:27	24959-67-9	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Iron	**8000**	ug/L	100	30.0	1	11/14/23 08:09	11/16/23 21:35	7439-89-6	
Magnesium	**32000**	ug/L	1000	33.6	1	11/14/23 08:09	11/16/23 21:35	7439-95-4	
Potassium	**16400**	ug/L	1000	97.8	1	11/14/23 08:09	11/16/23 21:35	7440-09-7	
Silica	**12700**	ug/L	450		1	11/14/23 08:09	11/16/23 21:35	7631-86-9	N2
Sodium	**50700**	ug/L	1000	54.8	1	11/14/23 08:09	11/16/23 21:35	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Boron, Dissolved	**28200**	ug/L	100	11.4	1	11/14/23 16:35	11/16/23 14:58	7440-42-8	
Iron, Dissolved	**7680**	ug/L	100	18.1	1	11/14/23 16:35	11/16/23 14:58	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	11/14/23 16:35	11/16/23 14:58	7439-93-2	
Magnesium, Dissolved	**31200**	ug/L	1000	32.8	1	11/14/23 16:35	11/16/23 14:58	7439-95-4	
Molybdenum, Dissolved	**562**	ug/L	10.0	1.1	1	11/14/23 16:35	11/16/23 14:58	7439-98-7	
Potassium, Dissolved	**16500**	ug/L	1000	120	1	11/14/23 16:35	11/16/23 14:58	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Aluminum	**27.3**	ug/L	10.0	2.3	1	11/13/23 07:41	11/14/23 16:14	7429-90-5	
Manganese	**2730**	ug/L	20.0	3.4	20	11/13/23 07:41	11/14/23 07:23	7439-96-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/10/23 07:10	11/11/23 04:07	7429-90-5	
Manganese, Dissolved	**2770**	ug/L	25.0	4.6	25	11/10/23 07:10	11/11/23 02:00	7439-96-5	
2320B Alkalinity	Analytical Method: SM 2320B								
	Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**64.2**	mg/L	10.0	10.0	1		11/09/23 23:59		
Alkalinity,Bicarbonate (CaCO3)	**64.2**	mg/L	10.0	10.0	1		11/09/23 23:59		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/09/23 23:59		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
	Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2820**	mg/L	40.0	40.0	1		11/13/23 14:49		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D								
	Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/09/23 14:48	18496-25-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

Sample: AP-3A **Lab ID: 50359042003** Collected: 11/07/23 17:30 Received: 11/08/23 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**3.0**	mg/L	1.0	0.18	5		11/10/23 16:37	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/09/23 01:51	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/09/23 01:51	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.20**	mg/L	0.15	0.15	1	11/17/23 13:00	11/19/23 19:40		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**2.5**	mg/L	1.0	0.24	1		11/18/23 11:23	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**4.9**	mg/L	1.0	0.24	1		11/18/23 03:25		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

Sample: DUP-3 **Lab ID: 50359042004** Collected: 11/07/23 16:25 Received: 11/08/23 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**9.8**	mg/L	0.50	0.090	10		11/17/23 03:44	24959-67-9	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Iron	**7790**	ug/L	100	30.0	1	11/14/23 08:09	11/16/23 21:36	7439-89-6	
Magnesium	**31300**	ug/L	1000	33.6	1	11/14/23 08:09	11/16/23 21:36	7439-95-4	
Potassium	**16000**	ug/L	1000	97.8	1	11/14/23 08:09	11/16/23 21:36	7440-09-7	
Silica	**12500**	ug/L	450		1	11/14/23 08:09	11/16/23 21:36	7631-86-9	N2
Sodium	**49900**	ug/L	1000	54.8	1	11/14/23 08:09	11/16/23 21:36	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**28200**	ug/L	100	11.4	1	11/14/23 16:35	11/16/23 15:00	7440-42-8	
Iron, Dissolved	**7620**	ug/L	100	18.1	1	11/14/23 16:35	11/16/23 15:00	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	11/14/23 16:35	11/16/23 15:00	7439-93-2	
Magnesium, Dissolved	**31200**	ug/L	1000	32.8	1	11/14/23 16:35	11/16/23 15:00	7439-95-4	
Molybdenum, Dissolved	**565**	ug/L	10.0	1.1	1	11/14/23 16:35	11/16/23 15:00	7439-98-7	
Potassium, Dissolved	**16500**	ug/L	1000	120	1	11/14/23 16:35	11/16/23 15:00	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**21.5**	ug/L	10.0	2.3	1	11/13/23 07:41	11/14/23 16:17	7429-90-5	
Manganese	**2830**	ug/L	20.0	3.4	20	11/13/23 07:41	11/14/23 07:32	7439-96-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/10/23 07:10	11/11/23 04:11	7429-90-5	
Manganese, Dissolved	**2720**	ug/L	20.0	3.6	20	11/10/23 07:10	11/14/23 19:00	7439-96-5	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**63.8**	mg/L	10.0	10.0	1		11/09/23 23:59		
Alkalinity,Bicarbonate (CaCO3)	**63.8**	mg/L	10.0	10.0	1		11/09/23 23:59		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/09/23 23:59		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2860**	mg/L	40.0	40.0	1		11/13/23 14:49		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/09/23 14:48	18496-25-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

Sample: DUP-3 **Lab ID: 50359042004** Collected: 11/07/23 16:25 Received: 11/08/23 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**2.7**	mg/L	1.0	0.18	5		11/10/23 16:37	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/09/23 01:44	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/09/23 01:44	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.24**	mg/L	0.15	0.15	1	11/17/23 13:00	11/19/23 19:40		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**2.5**	mg/L	1.0	0.24	1		11/18/23 12:02	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.2**	mg/L	1.0	0.24	1		11/18/23 03:38		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

Sample: FB-3 **Lab ID: 50359042005** Collected: 11/07/23 16:25 Received: 11/08/23 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	ND	mg/L	0.050	0.0090	1		11/16/23 03:49	24959-67-9	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Iron	ND	ug/L	100	30.0	1	11/14/23 08:09	11/16/23 21:37	7439-89-6	
Magnesium	ND	ug/L	1000	33.6	1	11/14/23 08:09	11/16/23 21:37	7439-95-4	
Potassium	ND	ug/L	1000	97.8	1	11/14/23 08:09	11/16/23 21:37	7440-09-7	
Silica	ND	ug/L	450		1	11/14/23 08:09	11/16/23 21:37	7631-86-9	N2
Sodium	ND	ug/L	1000	54.8	1	11/14/23 08:09	11/16/23 21:37	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	2.3	1	11/13/23 07:41	11/14/23 05:04	7429-90-5	
Manganese	ND	ug/L	1.0	0.17	1	11/13/23 07:41	11/14/23 05:04	7439-96-5	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	ND	mg/L	10.0	10.0	1		11/09/23 23:59		
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/09/23 23:59		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/09/23 23:59		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		11/13/23 14:49		PL
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/09/23 14:48	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/10/23 16:37	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/09/23 01:46	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/09/23 01:46	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/17/23 13:00	11/19/23 19:41		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

Sample: FB-3 **Lab ID: 50359042005** Collected: 11/07/23 16:25 Received: 11/08/23 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.24	1		11/18/23 11:42	7440-44-0	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

QC Batch: 762556
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359042001, 50359042002, 50359042003, 50359042004, 50359042005

METHOD BLANK: 3495366 Matrix: Water
Associated Lab Samples: 50359042001, 50359042002, 50359042003, 50359042004, 50359042005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	11/15/23 09:23	

LABORATORY CONTROL SAMPLE: 3495367

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.99	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495368 3495369

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	0.56	1	1	1.5	1.5	98	97	80-120	1	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

QC Batch: 762014
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359042001, 50359042002, 50359042003, 50359042004, 50359042005

METHOD BLANK: 3492970 Matrix: Water
Associated Lab Samples: 50359042001, 50359042002, 50359042003, 50359042004, 50359042005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron	ug/L	ND	100	30.0	11/16/23 21:01	
Magnesium	ug/L	ND	1000	33.6	11/16/23 21:01	
Potassium	ug/L	ND	1000	97.8	11/16/23 21:01	
Silica	ug/L	ND	450		11/16/23 21:01	N2
Sodium	ug/L	ND	1000	54.8	11/16/23 21:01	

LABORATORY CONTROL SAMPLE: 3492971

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	10000	9840	98	80-120	
Magnesium	ug/L	10000	9670	97	80-120	
Potassium	ug/L	10000	9890	99	80-120	
Silica	ug/L	10700	10700	100	80-120	N2
Sodium	ug/L	10000	9880	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3492972 3492973

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	ug/L	10200	10000	10000	19600	19300	94	91	75-125	2	20	
Magnesium	ug/L	45700	10000	10000	54500	53400	88	77	75-125	2	20	
Potassium	ug/L	3130	10000	10000	13400	13300	103	102	75-125	0	20	
Silica	ug/L	12300	10700	10700	23100	22800	101	98	75-125	1	20	N2
Sodium	ug/L	25500	10000	10000	34900	34500	94	90	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

QC Batch: 762755
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359042001, 50359042002, 50359042003, 50359042004

METHOD BLANK: 3496107 Matrix: Water
Associated Lab Samples: 50359042001, 50359042002, 50359042003, 50359042004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	11.4	11/16/23 14:20	
Iron, Dissolved	ug/L	ND	100	18.1	11/16/23 14:20	
Lithium, Dissolved	ug/L	ND	20.0	5.1	11/16/23 14:20	
Magnesium, Dissolved	ug/L	ND	1000	32.8	11/16/23 14:20	
Molybdenum, Dissolved	ug/L	ND	10.0	1.1	11/16/23 14:20	
Potassium, Dissolved	ug/L	ND	1000	120	11/16/23 14:20	

LABORATORY CONTROL SAMPLE: 3496108

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	932	93	80-120	
Iron, Dissolved	ug/L	10000	9720	97	80-120	
Lithium, Dissolved	ug/L	1000	987	99	80-120	
Magnesium, Dissolved	ug/L	10000	9380	94	80-120	
Molybdenum, Dissolved	ug/L	1000	1030	103	80-120	
Potassium, Dissolved	ug/L	10000	10100	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3496109 3496110

Parameter	Units	50358941020 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	3.7 mg/L	1000	1000	4550	4690	83	97	75-125	3	20	
Iron, Dissolved	ug/L	9.2 mg/L	10000	10000	18400	18800	93	97	75-125	2	20	
Lithium, Dissolved	ug/L	ND	1000	1000	992	1000	98	99	75-125	1	20	
Magnesium, Dissolved	ug/L	80.9 mg/L	10000	10000	87000	90000	61	90	75-125	3	20	P6
Molybdenum, Dissolved	ug/L	ND	1000	1000	1050	1050	104	105	75-125	1	20	
Potassium, Dissolved	ug/L	6.5 mg/L	10000	10000	16600	16900	101	104	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

QC Batch: 762360
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359042001, 50359042002, 50359042003, 50359042004, 50359042005

METHOD BLANK: 3494879 Matrix: Water
Associated Lab Samples: 50359042001, 50359042002, 50359042003, 50359042004, 50359042005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	2.3	11/14/23 04:30	
Manganese	ug/L	ND	1.0	0.17	11/14/23 04:30	

LABORATORY CONTROL SAMPLE: 3494880

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	395	99	80-120	
Manganese	ug/L	40	40.8	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3494881 3494882

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	23.5	400	400	415	408	98	96	75-125	2	20	
Manganese	ug/L	1500	40	40	1530	1540	69	87	75-125	0	20	P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

QC Batch: 761945
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359042001, 50359042002, 50359042003, 50359042004

METHOD BLANK: 3492364 Matrix: Water
Associated Lab Samples: 50359042001, 50359042002, 50359042003, 50359042004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.8	11/11/23 00:28	
Arsenic, Dissolved	ug/L	ND	1.0	0.10	11/11/23 00:28	
Manganese, Dissolved	ug/L	ND	1.0	0.18	11/11/23 00:28	

LABORATORY CONTROL SAMPLE: 3492365

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	392	98	80-120	
Arsenic, Dissolved	ug/L	40	39.4	99	80-120	
Manganese, Dissolved	ug/L	40	41.5	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3492366 3492367

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	361	371	90	92	75-125	3	20	
Manganese, Dissolved	ug/L	1490	40	40	1530	1530	86	89	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

QC Batch: 761998
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359042001, 50359042002, 50359042003, 50359042004, 50359042005

METHOD BLANK: 3492882 Matrix: Water
Associated Lab Samples: 50359042001, 50359042002, 50359042003, 50359042004, 50359042005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/09/23 23:59	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/09/23 23:59	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/09/23 23:59	

LABORATORY CONTROL SAMPLE: 3492883

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.8	98	90-110	

SAMPLE DUPLICATE: 3492884

Parameter	Units	50358941018 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	129	130	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	129	130	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3492885

Parameter	Units	50358941020 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	246	251	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	246	251	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

QC Batch: 762490 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359042001, 50359042002, 50359042003, 50359042004, 50359042005

METHOD BLANK: 3495174 Matrix: Water
Associated Lab Samples: 50359042001, 50359042002, 50359042003, 50359042004, 50359042005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/13/23 14:45	

LABORATORY CONTROL SAMPLE: 3495175

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	277	92	80-120	

SAMPLE DUPLICATE: 3495176

Parameter	Units	50359028002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2430	2350	4	10	

SAMPLE DUPLICATE: 3495177

Parameter	Units	50359053007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	430	430	0	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

QC Batch: 761828
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359042001, 50359042002, 50359042003, 50359042004, 50359042005

METHOD BLANK: 3491789 Matrix: Water
Associated Lab Samples: 50359042001, 50359042002, 50359042003, 50359042004, 50359042005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/09/23 14:48	

LABORATORY CONTROL SAMPLE: 3491790

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3491791 3491792

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.29	0.32	58	65	90-110	11	20	M3

MATRIX SPIKE SAMPLE: 3491793

Parameter	Units	50359039001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.47	92	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

QC Batch: 762234 | Analysis Method: HACH 8146
QC Batch Method: HACH 8146 | Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359042001, 50359042002, 50359042003, 50359042004, 50359042005

METHOD BLANK: 3493977 Matrix: Water
Associated Lab Samples: 50359042001, 50359042002, 50359042003, 50359042004, 50359042005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/10/23 16:35	H3,N2

LABORATORY CONTROL SAMPLE: 3493978

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	0.98	98	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3493979 3493980

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.0	107	102	90-110	5	20	H3,N2

MATRIX SPIKE SAMPLE: 3493981

Parameter	Units	50359162004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.0	105	90-110	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

QC Batch: 761711
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359042001

METHOD BLANK: 3491357 Matrix: Water
Associated Lab Samples: 50359042001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/08/23 23:39	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/08/23 23:39	

LABORATORY CONTROL SAMPLE: 3491358

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	101	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3491359 3491360

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	5	5	4.8	4.8	96	97	90-110	1	20	
Nitrogen, Nitrite	mg/L	ND	5	5	5.1	5.1	102	102	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3491361 3491362

Parameter	Units	50358941020 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	5	5	4.8	4.8	96	96	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	5	5	5.1	5.1	101	101	90-110	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

QC Batch: 761712
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359042002

METHOD BLANK: 3491363 Matrix: Water
Associated Lab Samples: 50359042002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/09/23 00:39	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/09/23 00:39	

LABORATORY CONTROL SAMPLE: 3491364

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	101	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3491365 3491366

Parameter	Units	50358934009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	5	5	4.8	4.8	95	95	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	5	5	5.0	5.0	100	101	90-110	0	20	

MATRIX SPIKE SAMPLE: 3491367

Parameter	Units	50358941011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.0	102	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	104	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

QC Batch: 761713
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359042003, 50359042004, 50359042005

METHOD BLANK: 3491368 Matrix: Water
Associated Lab Samples: 50359042003, 50359042004, 50359042005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/09/23 01:33	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/09/23 01:33	

LABORATORY CONTROL SAMPLE: 3491369

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	100	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	102	90-110	

MATRIX SPIKE SAMPLE: 3491370

Parameter	Units	50358934007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	0.98	97	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3491371 3491372

Parameter	Units	50359042005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.0	1.0	101	101	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	103	103	90-110	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

QC Batch: 763543 | Analysis Method: EPA 365.1
QC Batch Method: EPA 365.1 | Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359042001, 50359042002, 50359042003, 50359042004, 50359042005

METHOD BLANK: 3500008 Matrix: Water
Associated Lab Samples: 50359042001, 50359042002, 50359042003, 50359042004, 50359042005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	11/19/23 19:30	

LABORATORY CONTROL SAMPLE: 3500009

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3500010 3500011

Parameter	Units	50359042001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	0.17			1.7	1.7				3		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

QC Batch: 763365
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359042001, 50359042002, 50359042003, 50359042004, 50359042005

METHOD BLANK: 3498916 Matrix: Water
Associated Lab Samples: 50359042001, 50359042002, 50359042003, 50359042004, 50359042005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	11/18/23 01:34	

LABORATORY CONTROL SAMPLE: 3498917

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.3	93	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498918 3498919

Parameter	Units	50358769013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	2.0	10	10	10.5	10.4	85	84	80-120	1	20	

MATRIX SPIKE SAMPLE: 3498920

Parameter	Units	50358877001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.0	10	10.5	94	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

QC Batch: 763583 | Analysis Method: SM 5310C
QC Batch Method: SM 5310C | Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359042001, 50359042002, 50359042003, 50359042004

METHOD BLANK: 3500186 Matrix: Water
Associated Lab Samples: 50359042001, 50359042002, 50359042003, 50359042004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	11/18/23 00:01	

LABORATORY CONTROL SAMPLE: 3500187

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3500188 3500189

Parameter	Units	50359028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.0	10	10	11.6	11.7	96	97	80-120	1	20	

MATRIX SPIKE SAMPLE: 3500190

Parameter	Units	50359034001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	2.9	10	12.6	97	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
PL	The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359042001	**AP-2BO**	EPA 9056	762556		
50359042002	**AP-2A**	EPA 9056	762556		
50359042003	**AP-3A**	EPA 9056	762556		
50359042004	**DUP-3**	EPA 9056	762556		
50359042005	**FB-3**	EPA 9056	762556		
50359042001	**AP-2BO**	EPA 3010	762014	EPA 6010	763497
50359042002	**AP-2A**	EPA 3010	762014	EPA 6010	763497
50359042003	**AP-3A**	EPA 3010	762014	EPA 6010	763497
50359042004	**DUP-3**	EPA 3010	762014	EPA 6010	763497
50359042005	**FB-3**	EPA 3010	762014	EPA 6010	763497
50359042001	**AP-2BO**	EPA 3010	762755	EPA 6010	763398
50359042002	**AP-2A**	EPA 3010	762755	EPA 6010	763398
50359042003	**AP-3A**	EPA 3010	762755	EPA 6010	763398
50359042004	**DUP-3**	EPA 3010	762755	EPA 6010	763398
50359042001	**AP-2BO**	EPA 200.2	762360	EPA 6020	762608
50359042002	**AP-2A**	EPA 200.2	762360	EPA 6020	762608
50359042003	**AP-3A**	EPA 200.2	762360	EPA 6020	762608
50359042004	**DUP-3**	EPA 200.2	762360	EPA 6020	762608
50359042005	**FB-3**	EPA 200.2	762360	EPA 6020	762608
50359042001	**AP-2BO**	EPA 200.2	761945	EPA 6020	762232
50359042002	**AP-2A**	EPA 200.2	761945	EPA 6020	762232
50359042003	**AP-3A**	EPA 200.2	761945	EPA 6020	762232
50359042004	**DUP-3**	EPA 200.2	761945	EPA 6020	762232
50359042001	**AP-2BO**	SM 2320B	761998		
50359042002	**AP-2A**	SM 2320B	761998		
50359042003	**AP-3A**	SM 2320B	761998		
50359042004	**DUP-3**	SM 2320B	761998		
50359042005	**FB-3**	SM 2320B	761998		
50359042001	**AP-2BO**	SM 2540C	762490		
50359042002	**AP-2A**	SM 2540C	762490		
50359042003	**AP-3A**	SM 2540C	762490		
50359042004	**DUP-3**	SM 2540C	762490		
50359042005	**FB-3**	SM 2540C	762490		
50359042001	**AP-2BO**	SM 4500-S2-D	761828		
50359042002	**AP-2A**	SM 4500-S2-D	761828		
50359042003	**AP-3A**	SM 4500-S2-D	761828		
50359042004	**DUP-3**	SM 4500-S2-D	761828		
50359042005	**FB-3**	SM 4500-S2-D	761828		
50359042001	**AP-2BO**	HACH 8146	762234		
50359042002	**AP-2A**	HACH 8146	762234		
50359042003	**AP-3A**	HACH 8146	762234		
50359042004	**DUP-3**	HACH 8146	762234		
50359042005	**FB-3**	HACH 8146	762234		
50359042001	**AP-2BO**	EPA 353.2	761711		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359042

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359042002	**AP-2A**	EPA 353.2	761712		
50359042003	**AP-3A**	EPA 353.2	761713		
50359042004	**DUP-3**	EPA 353.2	761713		
50359042005	**FB-3**	EPA 353.2	761713		
50359042001	**AP-2BO**	EPA 365.1	763543	EPA 365.1	763962
50359042002	**AP-2A**	EPA 365.1	763543	EPA 365.1	763962
50359042003	**AP-3A**	EPA 365.1	763543	EPA 365.1	763962
50359042004	**DUP-3**	EPA 365.1	763543	EPA 365.1	763962
50359042005	**FB-3**	EPA 365.1	763543	EPA 365.1	763962
50359042001	**AP-2BO**	SM 5310C	763365		
50359042002	**AP-2A**	SM 5310C	763365		
50359042003	**AP-3A**	SM 5310C	763365		
50359042004	**DUP-3**	SM 5310C	763365		
50359042005	**FB-3**	SM 5310C	763365		
50359042001	**AP-2BO**	SM 5310C	763583		
50359042002	**AP-2A**	SM 5310C	763583		
50359042003	**AP-3A**	SM 5310C	763583		
50359042004	**DUP-3**	SM 5310C	763583		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P3R4 Nov 2023	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:		Pace Profile #:	10498/52

Regulatory Agency

State / Location: IN

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO2, NO3 Wet	(Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered** (Y)	Alkalinity*, Ferrous Iron, pH	TOC by 5310C	DOC by 5310C (Y)	Sulfide	Phosphate	Residual Chlorine (Y/N)	50359042
1	AP-2BO			11-7-23	1140	11-7-23	1200		9	X	X	X		X					X	X	X	X	X	X	X		001
2	AP-2A			11-7-23	1410	11-7-23	1447		9	X	X	X		X					X	X	X	X	X	X	X		002
3	AP-3A			11-7-23	1625	11-7-23	1730		9	X	X	X		X					X	X	X	X	X	X	X		003
4																											
5																											
6																											
7																											
8																											
9																											
10																											
11																											
12																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Metals: 6010 Fe, Mg, Na, K, sila 6020 - Al, Mn	[signature]	11-8-23	800	Jay Williams	11-8	8:00				
Dissolved FF 6010 (B, Fe, Mo, Li, Mg, K)	Jay Williams	11-8	10:45	[signature]	11-8-23	10:45	see SCUR	y	N	y
iss 6020 - Al, Mn										
alinity = (Total , Bicarb & Carb)										

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Josh O'Brian					
SIGNATURE of SAMPLER:	[signature]	DATE Signed: 11-7-23				

F-IN-Q-290-rev.23, 26Jun2023

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: BC 11-8-23 12:06

1. **Courier:** ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☐ Yes ☑ No
   (If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H
4. **Cooler Temperature(s):** See | Comments | | | **(Initial/Corrected)** **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**
5. **Packing Material:** ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓
Short Hold Time Analysis (48 hours or less)? **Analysis:** NO_3	✓	
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 1535	
Rush TAT Requested (4 days or less):		✓
Custody Signatures Present?	✓	
Containers Intact?:	✓	
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓	
Extra labels on Terracore Vials? (soils only)		

	Yes	No	N/A
All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** ~~HNO3 (<2)~~ H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	✓		
	Present	Absent	N/A
Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Headspace Wisconsin Sulfide?			✓
	Present	Absent	No VOA Vials Sent
Headspace in VOA Vials (>6mm): See Containter Count form for details			✓
Trip Blank Present?		✓	
Trip Blank Custody Seals?:			✓

COMMENTS: Temps: 0.6/0.6, 1.0/1.0, 1.5/1.5, 0.3/0.3, 0.4/0.4, 0.6/0.6, 0.5/0.5, 0.4/0.4, 0.2/0.2 Samples rcvd not on COC DUP-3 / FB-3 BC 11-8-23 D: 11-7-23 T: 16:25

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1												1	1				1	2	1	1		1						WT	✓	✓		✓
2																																
3																																
4															00	4								DUP-3 D: 11-7-25 T: 16:25									
5															00	5								FB-3 T: 16:25 D: 11-7-25									
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 07, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 09, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50359160001	**MW-25B**	Water	11/08/23 09:48	11/09/23 10:20
50359160002	**MW-27B**	Water	11/08/23 11:55	11/09/23 10:20

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50359160001	**MW-25B**	EPA 9056	ADM	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	DMT	6	PASI-I
		EPA 6020	DMT	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359160002	**MW-27B**	EPA 9056	ADM	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	DMT	6	PASI-I
		EPA 6020	DMT	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359160001	**MW-25B**					
EPA 9056	Bromide	0.071	mg/L	0.050	11/18/23 17:12	
EPA 9056	Chloride	7.4	mg/L	0.25	11/18/23 17:12	
EPA 9056	Fluoride	0.10	mg/L	0.10	11/18/23 17:12	
EPA 9056	Sulfate	91.7	mg/L	2.5	11/18/23 17:30	
EPA 6010	Boron	1110	ug/L	100	11/17/23 17:17	
EPA 6010	Calcium	135000	ug/L	1000	11/17/23 17:17	
EPA 6010	Iron	359	ug/L	100	11/17/23 17:17	
EPA 6010	Magnesium	27800	ug/L	1000	11/17/23 17:17	
EPA 6010	Silica	14200	ug/L	450	11/17/23 17:17	N2
EPA 6010	Sodium	5290	ug/L	1000	11/17/23 17:17	
EPA 6010	Boron, Dissolved	1200	ug/L	100	11/18/23 02:36	
EPA 6010	Iron, Dissolved	131	ug/L	100	11/18/23 02:36	
EPA 6010	Magnesium, Dissolved	29000	ug/L	1000	11/18/23 02:36	
EPA 6020	Aluminum	88.7	ug/L	10.0	11/16/23 05:42	
EPA 6020	Barium	42.4	ug/L	1.0	11/16/23 05:42	
EPA 6020	Manganese	368	ug/L	4.0	11/16/23 10:18	
EPA 6020	Selenium	1.2	ug/L	1.0	11/16/23 05:42	
EPA 6020	Manganese, Dissolved	302	ug/L	2.0	11/14/23 09:49	
EPA 903.1	Radium-226	0.185 ± 0.363 (0.664) C:NA T:82%	pCi/L		11/27/23 12:09	
EPA 904.0	Radium-228	0.306 ± 0.373 (0.790) C:82% T:82%	pCi/L		11/21/23 11:10	
Total Radium Calculation	Total Radium	0.491 ± 0.736 (1.45)	pCi/L		11/27/23 14:27	
SM 2320B	Alkalinity, Total as CaCO3	342	mg/L	10.0	11/14/23 03:46	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	335	mg/L	10.0	11/14/23 03:46	
SM 2540C	Total Dissolved Solids	487	mg/L	10.0	11/15/23 09:41	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	11/27/23 14:10	H3
EPA 353.2	Nitrogen, Nitrate	2.7	mg/L	0.10	11/10/23 01:03	
EPA 365.1	Phosphate as P04	0.29	mg/L	0.15	11/20/23 14:29	
SM 5310C	Total Organic Carbon	1.5	mg/L	1.0	11/18/23 06:13	
SM 5310C	Dissolved Organic Carbon	2.4	mg/L	1.0	11/21/23 01:22	
50359160002	**MW-27B**					
EPA 9056	Bromide	3.6	mg/L	0.050	11/18/23 17:49	
EPA 9056	Chloride	169	mg/L	2.5	11/18/23 18:07	
EPA 9056	Sulfate	142	mg/L	2.5	11/18/23 18:07	
EPA 6010	Boron	8660	ug/L	100	11/17/23 17:19	
EPA 6010	Calcium	247000	ug/L	2000	11/17/23 17:59	
EPA 6010	Iron	21700	ug/L	100	11/17/23 17:19	
EPA 6010	Magnesium	74900	ug/L	1000	11/17/23 17:19	
EPA 6010	Potassium	4240	ug/L	1000	11/17/23 17:19	
EPA 6010	Silica	26700	ug/L	450	11/17/23 17:19	N2
EPA 6010	Sodium	69800	ug/L	1000	11/17/23 17:19	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359160002	**MW-27B**					
EPA 6010	Boron, Dissolved	9060	ug/L	100	11/18/23 02:37	
EPA 6010	Iron, Dissolved	21900	ug/L	100	11/18/23 02:37	
EPA 6010	Magnesium, Dissolved	79700	ug/L	1000	11/18/23 02:37	
EPA 6010	Potassium, Dissolved	4600	ug/L	1000	11/18/23 02:37	
EPA 6020	Aluminum	21.0	ug/L	10.0	11/16/23 05:45	
EPA 6020	Arsenic	36.5	ug/L	1.0	11/16/23 05:45	
EPA 6020	Barium	404	ug/L	4.0	11/16/23 11:23	
EPA 6020	Manganese	980	ug/L	10.0	11/16/23 10:21	
EPA 6020	Manganese, Dissolved	949	ug/L	10.0	11/14/23 09:52	
EPA 903.1	Radium-226	2.59 ± 0.820 (0.414) C:NA T:86%	pCi/L		11/27/23 12:09	
EPA 904.0	Radium-228	1.60 ± 0.565 (0.784) C:76% T:81%	pCi/L		11/21/23 14:55	
Total Radium Calculation	Total Radium	4.19 ± 1.39 (1.20)	pCi/L		11/27/23 14:27	
SM 2320B	Alkalinity, Total as CaCO3	762	mg/L	10.0	11/14/23 03:46	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	762	mg/L	10.0	11/14/23 03:46	
SM 2540C	Total Dissolved Solids	1240	mg/L	20.0	11/15/23 09:41	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	11/27/23 14:10	H3
EPA 365.1	Phosphate as P04	6.9	mg/L	0.75	11/20/23 15:33	
SM 5310C	Total Organic Carbon	15.8	mg/L	1.0	11/18/23 06:24	
SM 5310C	Dissolved Organic Carbon	16.2	mg/L	1.0	11/21/23 01:40	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

Sample: MW-25B **Lab ID: 50359160001** Collected: 11/08/23 09:48 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.071**	mg/L	0.050	0.0090	1		11/18/23 17:12	24959-67-9	
Chloride	**7.4**	mg/L	0.25	0.067	1		11/18/23 17:12	16887-00-6	
Fluoride	**0.10**	mg/L	0.10	0.017	1		11/18/23 17:12	16984-48-8	
Sulfate	**91.7**	mg/L	2.5	1.9	10		11/18/23 17:30	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**1110**	ug/L	100	11.4	1	11/15/23 16:07	11/17/23 17:17	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/15/23 16:07	11/17/23 17:17	7440-43-9	
Calcium	**135000**	ug/L	1000	56.7	1	11/15/23 16:07	11/17/23 17:17	7440-70-2	
Iron	**359**	ug/L	100	18.1	1	11/15/23 16:07	11/17/23 17:17	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/15/23 16:07	11/17/23 17:17	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/15/23 16:07	11/17/23 17:17	7439-93-2	
Magnesium	**27800**	ug/L	1000	32.8	1	11/15/23 16:07	11/17/23 17:17	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	11/15/23 16:07	11/17/23 17:17	7439-98-7	
Potassium	ND	ug/L	1000	120	1	11/15/23 16:07	11/17/23 17:17	7440-09-7	
Silica	**14200**	ug/L	450		1	11/15/23 16:07	11/17/23 17:17	7631-86-9	N2
Sodium	**5290**	ug/L	1000	48.2	1	11/15/23 16:07	11/17/23 17:17	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1200**	ug/L	100	6.2	1	11/17/23 08:18	11/18/23 02:36	7440-42-8	
Iron, Dissolved	**131**	ug/L	100	30.0	1	11/17/23 08:18	11/18/23 02:36	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/17/23 08:18	11/18/23 02:36	7439-93-2	
Magnesium, Dissolved	**29000**	ug/L	1000	33.6	1	11/17/23 08:18	11/18/23 02:36	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	11/17/23 08:18	11/18/23 02:36	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	97.8	1	11/17/23 08:18	11/18/23 02:36	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**88.7**	ug/L	10.0	4.4	1	11/15/23 16:18	11/16/23 05:42	7429-90-5	
Arsenic	ND	ug/L	1.0	0.064	1	11/15/23 16:18	11/16/23 05:42	7440-38-2	
Barium	**42.4**	ug/L	1.0	0.067	1	11/15/23 16:18	11/16/23 05:42	7440-39-3	
Cobalt	ND	ug/L	1.0	0.024	1	11/15/23 16:18	11/16/23 05:42	7440-48-4	
Manganese	**368**	ug/L	4.0	0.17	4	11/15/23 16:18	11/16/23 10:18	7439-96-5	
Selenium	**1.2**	ug/L	1.0	0.23	1	11/15/23 16:18	11/16/23 05:42	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	11/13/23 07:41	11/14/23 06:10	7429-90-5	
Manganese, Dissolved	**302**	ug/L	2.0	0.086	2	11/13/23 07:41	11/14/23 09:49	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

Sample: MW-25B **Lab ID: 50359160001** Collected: 11/08/23 09:48 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**342**	mg/L	10.0	10.0	1		11/14/23 03:46		
Alkalinity,Bicarbonate (CaCO3)	**335**	mg/L	10.0	10.0	1		11/14/23 03:46		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/14/23 03:46		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**487**	mg/L	10.0	10.0	1		11/15/23 09:41		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.6**	Std. Units	0.10	0.10	1		11/27/23 14:10		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 10:49	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/10/23 16:38	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**2.7**	mg/L	0.10	0.011	1		11/10/23 01:03	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/10/23 01:03	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.29**	mg/L	0.15	0.15	1	11/18/23 11:30	11/20/23 14:29		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.5**	mg/L	1.0	0.24	1		11/18/23 06:13	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.4**	mg/L	1.0	0.24	1		11/21/23 01:22		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

Sample: MW-27B **Lab ID: 50359160002** Collected: 11/08/23 11:55 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**3.6**	mg/L	0.050	0.0090	1		11/18/23 17:49	24959-67-9	
Chloride	**169**	mg/L	2.5	0.67	10		11/18/23 18:07	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/18/23 17:49	16984-48-8	
Sulfate	**142**	mg/L	2.5	1.9	10		11/18/23 18:07	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**8660**	ug/L	100	11.4	1	11/15/23 16:07	11/17/23 17:19	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/15/23 16:07	11/17/23 17:19	7440-43-9	
Calcium	**247000**	ug/L	2000	113	2	11/15/23 16:07	11/17/23 17:59	7440-70-2	
Iron	**21700**	ug/L	100	18.1	1	11/15/23 16:07	11/17/23 17:19	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/15/23 16:07	11/17/23 17:19	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/15/23 16:07	11/17/23 17:19	7439-93-2	
Magnesium	**74900**	ug/L	1000	32.8	1	11/15/23 16:07	11/17/23 17:19	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	11/15/23 16:07	11/17/23 17:19	7439-98-7	
Potassium	**4240**	ug/L	1000	120	1	11/15/23 16:07	11/17/23 17:19	7440-09-7	
Silica	**26700**	ug/L	450		1	11/15/23 16:07	11/17/23 17:19	7631-86-9	N2
Sodium	**69800**	ug/L	1000	48.2	1	11/15/23 16:07	11/17/23 17:19	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**9060**	ug/L	100	6.2	1	11/17/23 08:18	11/18/23 02:37	7440-42-8	
Iron, Dissolved	**21900**	ug/L	100	30.0	1	11/17/23 08:18	11/18/23 02:37	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/17/23 08:18	11/18/23 02:37	7439-93-2	
Magnesium, Dissolved	**79700**	ug/L	1000	33.6	1	11/17/23 08:18	11/18/23 02:37	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	11/17/23 08:18	11/18/23 02:37	7439-98-7	
Potassium, Dissolved	**4600**	ug/L	1000	97.8	1	11/17/23 08:18	11/18/23 02:37	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**21.0**	ug/L	10.0	4.4	1	11/15/23 16:18	11/16/23 05:45	7429-90-5	
Arsenic	**36.5**	ug/L	1.0	0.064	1	11/15/23 16:18	11/16/23 05:45	7440-38-2	
Barium	**404**	ug/L	4.0	0.27	4	11/15/23 16:18	11/16/23 11:23	7440-39-3	
Cobalt	ND	ug/L	1.0	0.024	1	11/15/23 16:18	11/16/23 05:45	7440-48-4	
Manganese	**980**	ug/L	10.0	0.43	10	11/15/23 16:18	11/16/23 10:21	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	11/15/23 16:18	11/16/23 05:45	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	11/13/23 07:41	11/14/23 06:14	7429-90-5	
Manganese, Dissolved	**949**	ug/L	10.0	0.43	10	11/13/23 07:41	11/14/23 09:52	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

Sample: MW-27B **Lab ID: 50359160002** Collected: 11/08/23 11:55 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**762**	mg/L	10.0	10.0	1		11/14/23 03:46		
Alkalinity,Bicarbonate (CaCO3)	**762**	mg/L	10.0	10.0	1		11/14/23 03:46		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/14/23 03:46		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1240**	mg/L	20.0	20.0	1		11/15/23 09:41		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		11/27/23 14:10		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 10:49	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/10/23 16:52	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/10/23 01:09	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/10/23 01:09	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**6.9**	mg/L	0.75	0.75	5	11/18/23 11:30	11/20/23 15:33		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**15.8**	mg/L	1.0	0.24	1		11/18/23 06:24	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**16.2**	mg/L	1.0	0.24	1		11/21/23 01:40		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

QC Batch: 762636
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359160001, 50359160002

METHOD BLANK: 3495678 Matrix: Water
Associated Lab Samples: 50359160001, 50359160002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	11/18/23 18:23	
Chloride	mg/L	ND	0.25	0.067	11/18/23 18:23	
Fluoride	mg/L	ND	0.10	0.017	11/18/23 18:23	
Sulfate	mg/L	ND	0.25	0.19	11/18/23 18:23	

LABORATORY CONTROL SAMPLE: 3495679

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.94	94	80-120	
Chloride	mg/L	2.5	2.3	92	80-120	
Fluoride	mg/L	1	0.95	95	80-120	
Sulfate	mg/L	5	4.8	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495680 3495681

Parameter	Units	50359111011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	0.28	1	1	1.2	1.2	94	94	80-120	0	15	
Chloride	mg/L	33.7	25	25	57.1	57.2	94	94	80-120	0	15	
Fluoride	mg/L	0.14	1	1	0.99	0.98	85	84	80-120	1	15	
Sulfate	mg/L	73.9	50	50	121	120	94	92	80-120	1	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

QC Batch: 762698
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359160001, 50359160002

METHOD BLANK: 3495904 Matrix: Water
Associated Lab Samples: 50359160001, 50359160002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	11.4	11/17/23 17:16	
Cadmium	ug/L	ND	2.0	0.74	11/17/23 17:16	
Calcium	ug/L	ND	1000	56.7	11/17/23 17:16	
Iron	ug/L	ND	100	18.1	11/17/23 17:16	
Lead	ug/L	ND	10.0	4.0	11/17/23 17:16	
Lithium	ug/L	ND	20.0	5.1	11/17/23 17:16	
Magnesium	ug/L	ND	1000	32.8	11/17/23 17:16	
Molybdenum	ug/L	ND	10.0	1.1	11/17/23 17:16	
Potassium	ug/L	ND	1000	120	11/17/23 17:16	
Silica	ug/L	ND	450		11/17/23 17:16	N2
Sodium	ug/L	ND	1000	48.2	11/17/23 17:16	

LABORATORY CONTROL SAMPLE: 3495905

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	924	92	80-120	
Cadmium	ug/L	1000	949	95	80-120	
Calcium	ug/L	10000	9830	98	80-120	
Iron	ug/L	10000	9790	98	80-120	
Lead	ug/L	1000	937	94	80-120	
Lithium	ug/L	1000	957	96	80-120	
Magnesium	ug/L	10000	9480	95	80-120	
Molybdenum	ug/L	1000	1010	101	80-120	
Potassium	ug/L	10000	9470	95	80-120	
Silica	ug/L	10700	10100	94	80-120	N2
Sodium	ug/L	10000	9460	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495906 3495907

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	4190	1000	1000	5110	5050	92	87	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	960	956	96	96	75-125	0	20	
Calcium	ug/L	562000	10000	10000	558000	555000	-39	-74	75-125	1	20	E,P6
Iron	ug/L	ND	10000	10000	9500	9380	95	94	75-125	1	20	
Lead	ug/L	ND	1000	1000	865	862	87	86	75-125	0	20	
Lithium	ug/L	345	1000	1000	1270	1260	92	92	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495906 3495907

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Magnesium	ug/L	53100	10000	10000	61100	60400	80	73	75-125	1	20	P6
Molybdenum	ug/L	ND	1000	1000	1010	1010	100	100	75-125	0	20	
Potassium	ug/L	60200	10000	10000	68800	68600	86	84	75-125	0	20	
Silica	ug/L	20000	10700	10700	30500	30400	99	98	75-125	0	20	N2
Sodium	ug/L	79300	10000	10000	87000	86700	77	75	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

QC Batch: 763240
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359160001, 50359160002

METHOD BLANK: 3498338 Matrix: Water
Associated Lab Samples: 50359160001, 50359160002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	11/18/23 02:20	
Iron, Dissolved	ug/L	ND	100	30.0	11/18/23 02:20	
Lithium, Dissolved	ug/L	ND	20.0	6.8	11/18/23 02:20	
Magnesium, Dissolved	ug/L	ND	1000	33.6	11/18/23 02:20	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	11/18/23 02:20	
Potassium, Dissolved	ug/L	ND	1000	97.8	11/18/23 02:20	

LABORATORY CONTROL SAMPLE: 3498339

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	984	98	80-120	
Iron, Dissolved	ug/L	10000	9980	100	80-120	
Lithium, Dissolved	ug/L	1000	1020	102	80-120	
Magnesium, Dissolved	ug/L	10000	10000	100	80-120	
Molybdenum, Dissolved	ug/L	1000	1030	103	80-120	
Potassium, Dissolved	ug/L	10000	10000	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498340 3498341

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	4370	1000	1000	5290	5200	92	83	75-125	2	20	
Iron, Dissolved	ug/L	ND	10000	10000	9590	9520	96	95	75-125	1	20	
Lithium, Dissolved	ug/L	369	1000	1000	1390	1380	102	101	75-125	1	20	
Magnesium, Dissolved	ug/L	53900	10000	10000	62500	61300	86	74	75-125	2	20	P6
Molybdenum, Dissolved	ug/L	ND	1000	1000	1030	1020	102	101	75-125	1	20	
Potassium, Dissolved	ug/L	63200	10000	10000	72700	70700	95	75	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

QC Batch: 763013
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359160001, 50359160002

METHOD BLANK: 3497196 Matrix: Water
Associated Lab Samples: 50359160001, 50359160002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	4.4	11/16/23 13:10	
Arsenic	ug/L	ND	1.0	0.064	11/16/23 13:10	
Barium	ug/L	ND	1.0	0.067	11/16/23 13:10	
Cobalt	ug/L	ND	1.0	0.024	11/16/23 13:10	
Manganese	ug/L	ND	1.0	0.043	11/16/23 13:10	
Selenium	ug/L	ND	1.0	0.23	11/16/23 13:10	

LABORATORY CONTROL SAMPLE: 3497197

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	423	106	80-120	
Arsenic	ug/L	40	36.5	91	80-120	
Barium	ug/L	40	39.6	99	80-120	
Cobalt	ug/L	40	40.7	102	80-120	
Manganese	ug/L	40	39.9	100	80-120	
Selenium	ug/L	40	40.5	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3497198 3497199

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	ND	400	400	396	402	97	98	75-125	2	20	
Arsenic	ug/L	ND	40	40	39.8	40.2	99	100	75-125	1	20	
Barium	ug/L	29.3	40	40	71.2	71.4	105	105	75-125	0	20	
Cobalt	ug/L	1.0	40	40	38.7	38.8	94	95	75-125	0	20	
Manganese	ug/L	2460	40	40	2500	2480	93	37	75-125	1	20	P6
Selenium	ug/L	ND	40	40	43.6	44.6	108	111	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

QC Batch: 762361
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359160001, 50359160002

METHOD BLANK: 3494883 Matrix: Water
Associated Lab Samples: 50359160001, 50359160002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	4.4	11/14/23 06:03	
Manganese, Dissolved	ug/L	ND	1.0	0.043	11/14/23 06:03	

LABORATORY CONTROL SAMPLE: 3494884

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	401	100	80-120	
Manganese, Dissolved	ug/L	40	41.1	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3494885 3494886

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	426	429	106	107	75-125	1	20	
Manganese, Dissolved	ug/L	2490	40	40	2490	2530	-6	105	75-125	2	20	P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

QC Batch: 762686
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359160001, 50359160002

METHOD BLANK: 3495863 Matrix: Water
Associated Lab Samples: 50359160001, 50359160002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/14/23 03:46	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/14/23 03:46	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/14/23 03:46	

LABORATORY CONTROL SAMPLE: 3495864

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.8	98	90-110	

SAMPLE DUPLICATE: 3495865

Parameter	Units	50359167001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	434	445	3	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	434	445	3	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3495866

Parameter	Units	50359185001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	497	510	3	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	474	487	3	20	
Alkalinity,Carbonate (CaCO3)	mg/L	23.2	23.2	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

QC Batch: 762769
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359160001, 50359160002

METHOD BLANK: 3496163 Matrix: Water
Associated Lab Samples: 50359160001, 50359160002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/15/23 09:37	

LABORATORY CONTROL SAMPLE: 3496164

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	270	90	80-120	

SAMPLE DUPLICATE: 3496165

Parameter	Units	50359133001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	500	542	8	10	

SAMPLE DUPLICATE: 3496166

Parameter	Units	50359167001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2650	2670	1	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

QC Batch: 764862
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359160001, 50359160002

SAMPLE DUPLICATE: 3505588

Parameter	Units	50359111028 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.7	6.7	0	2	H3

SAMPLE DUPLICATE: 3505589

Parameter	Units	50359170001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.2	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

QC Batch: 762749
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359160001, 50359160002

METHOD BLANK: 3496081 Matrix: Water
Associated Lab Samples: 50359160001, 50359160002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/14/23 10:49	

LABORATORY CONTROL SAMPLE: 3496082

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.51	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3496083 3496084

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.54	0.52	107	103	90-110	4	20	

MATRIX SPIKE SAMPLE: 3496085

Parameter	Units	50359185001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	5	5.8	115	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

QC Batch: 762234
QC Batch Method: HACH 8146
Analysis Method: HACH 8146
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359160001, 50359160002

METHOD BLANK: 3493977 Matrix: Water
Associated Lab Samples: 50359160001, 50359160002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/10/23 16:35	H3,N2

LABORATORY CONTROL SAMPLE: 3493978

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	0.98	98	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3493979 3493980

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.0	107	102	90-110	5	20	H3,N2

MATRIX SPIKE SAMPLE: 3493981

Parameter	Units	50359162004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.0	105	90-110	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

QC Batch: 762010
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359160001, 50359160002

METHOD BLANK: 3492953 Matrix: Water
Associated Lab Samples: 50359160001, 50359160002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/10/23 00:58	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/10/23 00:58	

LABORATORY CONTROL SAMPLE: 3492954

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	103	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3492955 3492956

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.1	1.1	102	101	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	103	104	90-110	0	20	

MATRIX SPIKE SAMPLE: 3492981

Parameter	Units	50359160001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	2.7	1	3.5	86	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	103	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

QC Batch: 763769
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359160001, 50359160002

METHOD BLANK: 3501193 Matrix: Water
Associated Lab Samples: 50359160001, 50359160002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	11/20/23 14:22	

LABORATORY CONTROL SAMPLE: 3501194

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3501195 3501196

Parameter	Units	50359160002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	6.9			8.8	8.6				3		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

QC Batch: 763573
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359160001, 50359160002

METHOD BLANK: 3500128 Matrix: Water
Associated Lab Samples: 50359160001, 50359160002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	11/18/23 05:11	

LABORATORY CONTROL SAMPLE: 3500129

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.7	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3500130 3500131

Parameter	Units	50359248001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	2.8J	10	10	12.2	11.7	94	90	80-120	4	20	

MATRIX SPIKE SAMPLE: 3500132

Parameter	Units	50359248007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	72.9	80	157	105	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

QC Batch: 764031
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359160001, 50359160002

METHOD BLANK: 3502328 Matrix: Water
Associated Lab Samples: 50359160001, 50359160002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	11/20/23 23:01	

LABORATORY CONTROL SAMPLE: 3502329

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3502330 3502331

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	4.4	10	10	13.5	13.4	91	90	80-120	1	20	

MATRIX SPIKE SAMPLE: 3502332

Parameter	Units	50359167003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	1.8	10	11.5	97	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

Sample: MW-25B **Lab ID: 50359160001** Collected: 11/08/23 09:48 Received: 11/09/23 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.185 ± 0.363 (0.664) C:NA T:82%**	pCi/L	11/27/23 12:09	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.306 ± 0.373 (0.790) C:82% T:82%**	pCi/L	11/21/23 11:10	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.491 ± 0.736 (1.45)**	pCi/L	11/27/23 14:27	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

Sample: MW-27B **Lab ID: 50359160002** Collected: 11/08/23 11:55 Received: 11/09/23 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**2.59 ± 0.820 (0.414) C:NA T:86%**	pCi/L	11/27/23 12:09	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.60 ± 0.565 (0.784) C:76% T:81%**	pCi/L	11/21/23 14:55	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**4.19 ± 1.39 (1.20)**	pCi/L	11/27/23 14:27	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

QC Batch: 630224
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359160001, 50359160002

METHOD BLANK: 3072611
Matrix: Water
Associated Lab Samples: 50359160001, 50359160002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.123 ± 0.267 (0.492) C:NA T:90%	pCi/L	11/27/23 11:57	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

QC Batch: 630225
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359160001, 50359160002

METHOD BLANK: 3072612 Matrix: Water
Associated Lab Samples: 50359160001, 50359160002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.237 ± 0.254 (0.525) C:86% T:93%	pCi/L	11/21/23 11:13	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359160

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359160001	**MW-25B**	EPA 9056	762636		
50359160002	**MW-27B**	EPA 9056	762636		
50359160001	**MW-25B**	EPA 3010	762698	EPA 6010	763695
50359160002	**MW-27B**	EPA 3010	762698	EPA 6010	763695
50359160001	**MW-25B**	EPA 3010	763240	EPA 6010	763747
50359160002	**MW-27B**	EPA 3010	763240	EPA 6010	763747
50359160001	**MW-25B**	EPA 200.2	763013	EPA 6020	763255
50359160002	**MW-27B**	EPA 200.2	763013	EPA 6020	763255
50359160001	**MW-25B**	EPA 200.2	762361	EPA 6020	762612
50359160002	**MW-27B**	EPA 200.2	762361	EPA 6020	762612
50359160001	**MW-25B**	EPA 903.1	630224		
50359160002	**MW-27B**	EPA 903.1	630224		
50359160001	**MW-25B**	EPA 904.0	630225		
50359160002	**MW-27B**	EPA 904.0	630225		
50359160001	**MW-25B**	Total Radium Calculation	632150		
50359160002	**MW-27B**	Total Radium Calculation	632150		
50359160001	**MW-25B**	SM 2320B	762686		
50359160002	**MW-27B**	SM 2320B	762686		
50359160001	**MW-25B**	SM 2540C	762769		
50359160002	**MW-27B**	SM 2540C	762769		
50359160001	**MW-25B**	SM 4500-H+B	764862		
50359160002	**MW-27B**	SM 4500-H+B	764862		
50359160001	**MW-25B**	SM 4500-S2-D	762749		
50359160002	**MW-27B**	SM 4500-S2-D	762749		
50359160001	**MW-25B**	HACH 8146	762234		
50359160002	**MW-27B**	HACH 8146	762234		
50359160001	**MW-25B**	EPA 353.2	762010		
50359160002	**MW-27B**	EPA 353.2	762010		
50359160001	**MW-25B**	EPA 365.1	763769	EPA 365.1	764044
50359160002	**MW-27B**	EPA 365.1	763769	EPA 365.1	764044
50359160001	**MW-25B**	SM 5310C	763573		
50359160002	**MW-27B**	SM 5310C	763573		
50359160001	**MW-25B**	SM 5310C	764031		
50359160002	**MW-27B**	SM 5310C	764031		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO# : 50359160

50359160

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Required Project Information:		Section C Invoice Information:	
Company: Atlas Indianapolis	Report To: Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address: 7988 Centerpoint Drive Suite 100	Copy To:	Company Name:	Atlas Indianapolis
Indianapolis, IN 46256		Address:	
Email: mark.breting@oneatlas.com	Purchase Order #:	Pace Quote:	
Phone: (317)579-4082 Fax:	Project Name: Petersburg P4R3 Nov 2023	Pace Project Manager:	Will Statz
Requested Due Date:	Project #:	Pace Profile #:	10498/53

Regulatory Agency	State / Location
	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO2, NO3 Wet	(Br, Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity*, Ferrous Iron, pH	TOC by 5310C	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum			Residual Chlorine (Y/N)	
	MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																	Y				Y										
1	MW-25B	WT	G	11/8	9:18	11/8	9:48		11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					
2	MW-27B	WT	G	11/8	11:25	11/8	11:55		11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
* Metals: 6010 (B, Cd, Fe, Pb, Mo, Ca, Mg, Na, K, Li, sila) (11)	Carsen Clouser						
6020 (Al, Mn, Co, As, Se, Ba) (6)	Carsen Clouser	11/8	1600	Jay Wilburn	11-9	8:00	
** Dissolved FF 6010 (B, Fe, Mo, Mg, K, Li) (6) FF 6020 (Al, Mn) (2)	Jay Wilburn	11-9	10:20AM		11/3/23	1022	SEE SCAN
Rad 226/2228 to Pace PA							

SAMPLER NAME AND SIGNATURE					
PRINT Name of SAMPLER:	Carsen Clouser		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
SIGNATURE of SAMPLER:	Carsen Clouser	DATE Signed: 11/8/23				

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: MR 11/9/23 1200

1. **Courier:** ☐FED EX ☐UPS ☑CLIENT ☐PACE ☐NOW/JETT ☐OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H
4. **Cooler Temperature(s):** 0.9/0.9 | 0.7/0.7 | 1.1/1.1 | 0.5/0.5
   (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? **Analysis:** N-3	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 1330			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:		✓	

COMMENTS: 1.5/1.5 0.9/0.9 0.7/0.7 0.6/0.6 1.1/1.1 0.9/0.9

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1													1	1		2	1	2	1	1	1		1					WT	✓	✓		✓
2													1	1		2	1	2	1	1	1		1					WT	✓	✓		✓
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 07, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 09, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50359162001	**MW-28B**	Water	11/08/23 14:52	11/09/23 10:20
50359162002	**DUP 6**	Water	11/08/23 08:00	11/09/23 10:20
50359162003	**MW-28I**	Water	11/08/23 16:03	11/09/23 10:20
50359162004	**MW-26B**	Water	11/08/23 13:50	11/09/23 10:20
50359162005	**MW-26I**	Water	11/08/23 10:50	11/09/23 10:20
50359162006	**MW-28A**	Water	11/08/23 15:30	11/09/23 10:20
50359162007	**MW-26A**	Water	11/08/23 12:00	11/09/23 10:20

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50359162001	**MW-28B**	EPA 9056	ADM	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	DMT	6	PASI-I
		EPA 6020	DMT	2	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359162002	**DUP 6**	EPA 9056	ADM	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	DMT	6	PASI-I
		EPA 6020	DMT	2	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359162003	**MW-28I**	EPA 9056	ADM	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	JPK	6	PASI-I

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	DMT	6	PASI-I
		EPA 6020	DMT	2	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359162004	**MW-26B**	EPA 9056	ADM	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	DMT	6	PASI-I
		EPA 6020	DMT	2	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359162005	**MW-26I**	EPA 9056	ADM	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	DMT	6	PASI-I
		EPA 6020	DMT	2	PASI-I
		EPA 903.1	CLM	1	PASI-PA

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359162006	**MW-28A**	EPA 9056	ADM	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	DMT	6	PASI-I
		EPA 6020	DMT	2	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359162007	**MW-26A**	EPA 9056	ADM	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	DMT	6	PASI-I
		EPA 6020	DMT	2	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359162001	**MW-28B**					
EPA 9056	Bromide	3.0	mg/L	0.050	11/18/23 20:06	
EPA 9056	Chloride	76.0	mg/L	2.5	11/18/23 20:25	
EPA 9056	Fluoride	0.21	mg/L	0.10	11/18/23 20:06	
EPA 9056	Sulfate	577	mg/L	25.0	11/18/23 20:43	
EPA 6010	Boron	7280	ug/L	100	11/17/23 17:20	
EPA 6010	Calcium	252000	ug/L	2000	11/17/23 18:04	
EPA 6010	Iron	997	ug/L	100	11/17/23 17:20	
EPA 6010	Lithium	126	ug/L	20.0	11/17/23 17:20	
EPA 6010	Magnesium	39600	ug/L	1000	11/17/23 17:20	
EPA 6010	Molybdenum	385	ug/L	10.0	11/17/23 17:20	
EPA 6010	Potassium	13900	ug/L	1000	11/17/23 17:20	
EPA 6010	Silica	13100	ug/L	450	11/17/23 17:20	N2
EPA 6010	Sodium	46600	ug/L	1000	11/17/23 17:20	
EPA 6010	Boron, Dissolved	7310	ug/L	100	11/18/23 02:39	
EPA 6010	Iron, Dissolved	924	ug/L	100	11/18/23 02:39	
EPA 6010	Lithium, Dissolved	129	ug/L	20.0	11/18/23 02:39	
EPA 6010	Magnesium, Dissolved	40400	ug/L	1000	11/18/23 02:39	
EPA 6010	Molybdenum, Dissolved	383	ug/L	10.0	11/18/23 02:39	
EPA 6010	Potassium, Dissolved	14600	ug/L	1000	11/18/23 02:39	
EPA 6020	Arsenic	1.4	ug/L	1.0	11/16/23 05:49	
EPA 6020	Barium	40.4	ug/L	1.0	11/16/23 05:49	
EPA 6020	Cobalt	4.1	ug/L	1.0	11/16/23 05:49	
EPA 6020	Manganese	2660	ug/L	25.0	11/16/23 10:25	
EPA 6020	Manganese, Dissolved	2470	ug/L	20.0	11/14/23 09:56	
EPA 903.1	Radium-226	0.183 ± 0.547 (1.01) C:NA T:92%	pCi/L		11/28/23 12:07	
EPA 904.0	Radium-228	0.348 ± 0.300 (0.597) C:86% T:83%	pCi/L		11/28/23 14:47	
Total Radium Calculation	Total Radium	0.531 ± 0.847 (1.61)	pCi/L		11/29/23 10:33	
SM 2320B	Alkalinity, Total as CaCO3	227	mg/L	10.0	11/13/23 23:38	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	227	mg/L	10.0	11/13/23 23:38	
SM 2540C	Total Dissolved Solids	1230	mg/L	20.0	11/15/23 09:41	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	11/27/23 14:11	H3
HACH 8146	Iron, Ferrous	0.64	mg/L	0.20	11/10/23 16:58	H3,N2
SM 5310C	Total Organic Carbon	2.2	mg/L	1.0	11/18/23 06:37	
SM 5310C	Dissolved Organic Carbon	2.7	mg/L	1.0	11/21/23 01:52	
50359162002	**DUP 6**					
EPA 9056	Bromide	3.1	mg/L	0.050	11/18/23 21:01	
EPA 9056	Chloride	77.6	mg/L	2.5	11/18/23 21:20	
EPA 9056	Fluoride	0.21	mg/L	0.10	11/18/23 21:01	
EPA 9056	Sulfate	576	mg/L	25.0	11/18/23 21:38	
EPA 6010	Boron	7520	ug/L	100	11/17/23 17:22	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359162002	**DUP 6**					
EPA 6010	Calcium	258000	ug/L	2000	11/17/23 18:06	
EPA 6010	Iron	1030	ug/L	100	11/17/23 17:22	
EPA 6010	Lithium	132	ug/L	20.0	11/17/23 17:22	
EPA 6010	Magnesium	40600	ug/L	1000	11/17/23 17:22	
EPA 6010	Molybdenum	396	ug/L	10.0	11/17/23 17:22	
EPA 6010	Potassium	14300	ug/L	1000	11/17/23 17:22	
EPA 6010	Silica	13200	ug/L	450	11/17/23 17:22	N2
EPA 6010	Sodium	47500	ug/L	1000	11/17/23 17:22	
EPA 6010	Boron, Dissolved	4660	ug/L	100	11/18/23 02:40	
EPA 6010	Iron, Dissolved	518	ug/L	100	11/18/23 02:40	
EPA 6010	Lithium, Dissolved	104	ug/L	20.0	11/18/23 02:40	
EPA 6010	Magnesium, Dissolved	32800	ug/L	1000	11/18/23 02:40	
EPA 6010	Molybdenum, Dissolved	335	ug/L	10.0	11/18/23 02:40	
EPA 6010	Potassium, Dissolved	12300	ug/L	1000	11/18/23 02:40	
EPA 6020	Arsenic	1.4	ug/L	1.0	11/16/23 05:52	
EPA 6020	Barium	39.6	ug/L	1.0	11/16/23 05:52	
EPA 6020	Cobalt	4.0	ug/L	1.0	11/16/23 05:52	
EPA 6020	Manganese	2670	ug/L	25.0	11/16/23 10:28	
EPA 6020	Manganese, Dissolved	2080	ug/L	20.0	11/14/23 09:59	
EPA 903.1	Radium-226	0.463 ± 0.470 (0.712) C:NA T:87%	pCi/L		11/28/23 12:07	
EPA 904.0	Radium-228	0.369 ± 0.336 (0.678) C:82% T:82%	pCi/L		11/28/23 14:47	
Total Radium Calculation	Total Radium	0.832 ± 0.806 (1.39)	pCi/L		11/29/23 10:33	
SM 2320B	Alkalinity, Total as CaCO3	214	mg/L	10.0	11/13/23 23:38	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	214	mg/L	10.0	11/13/23 23:38	
SM 2540C	Total Dissolved Solids	1190	mg/L	20.0	11/15/23 09:42	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	11/27/23 14:11	H3
HACH 8146	Iron, Ferrous	0.62	mg/L	0.20	11/10/23 16:37	H3,N2
SM 5310C	Total Organic Carbon	2.4	mg/L	1.0	11/18/23 06:47	
SM 5310C	Dissolved Organic Carbon	2.2	mg/L	1.0	11/21/23 02:22	
50359162003	**MW-28I**					
EPA 9056	Bromide	2.0	mg/L	0.050	11/18/23 23:10	
EPA 9056	Chloride	117	mg/L	2.5	11/18/23 23:28	
EPA 9056	Sulfate	1300	mg/L	25.0	11/18/23 23:47	
EPA 6010	Boron	21000	ug/L	100	11/17/23 17:27	
EPA 6010	Calcium	569000	ug/L	5000	11/17/23 18:07	
EPA 6010	Iron	9640	ug/L	100	11/17/23 17:27	
EPA 6010	Magnesium	15300	ug/L	1000	11/17/23 17:27	
EPA 6010	Molybdenum	842	ug/L	10.0	11/17/23 17:27	
EPA 6010	Potassium	34100	ug/L	1000	11/17/23 17:27	
EPA 6010	Silica	12200	ug/L	450	11/17/23 17:27	N2

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359162003	**MW-28I**					
EPA 6010	Sodium	35600	ug/L	1000	11/17/23 17:27	
EPA 6010	Boron, Dissolved	21600	ug/L	100	11/18/23 02:41	
EPA 6010	Iron, Dissolved	8770	ug/L	100	11/18/23 02:41	
EPA 6010	Magnesium, Dissolved	15000	ug/L	1000	11/18/23 02:41	
EPA 6010	Molybdenum, Dissolved	823	ug/L	10.0	11/18/23 02:41	
EPA 6010	Potassium, Dissolved	35700	ug/L	1000	11/18/23 02:41	
EPA 6020	Aluminum	68.9	ug/L	10.0	11/16/23 05:55	
EPA 6020	Arsenic	1.1	ug/L	1.0	11/16/23 05:55	
EPA 6020	Barium	32.4	ug/L	1.0	11/16/23 05:55	
EPA 6020	Manganese	2070	ug/L	20.0	11/16/23 10:31	
EPA 6020	Manganese, Dissolved	1970	ug/L	20.0	11/14/23 10:03	
EPA 903.1	Radium-226	0.0626 ± 0.475 (0.940) C:NA T:90%	pCi/L		11/28/23 12:07	
EPA 904.0	Radium-228	0.737 ± 0.407 (0.741) C:84% T:88%	pCi/L		11/28/23 14:48	
Total Radium Calculation	Total Radium	0.800 ± 0.882 (1.68)	pCi/L		11/29/23 10:33	
SM 2320B	Alkalinity, Total as CaCO3	101	mg/L	10.0	11/13/23 23:38	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	101	mg/L	10.0	11/13/23 23:38	
SM 2540C	Total Dissolved Solids	2460	mg/L	20.0	11/15/23 09:42	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	11/27/23 14:11	H3
SM 4500-S2-D	Sulfide	0.027J	mg/L	0.10	11/14/23 10:49	
HACH 8146	Iron, Ferrous	0.87	mg/L	0.50	11/10/23 16:59	H3,N2
EPA 365.1	Phosphate as P04	0.40	mg/L	0.15	11/20/23 14:34	
SM 5310C	Total Organic Carbon	2.3	mg/L	1.0	11/18/23 07:04	
SM 5310C	Dissolved Organic Carbon	2.6	mg/L	1.0	11/21/23 02:33	
50359162004	**MW-26B**					
EPA 9056	Bromide	0.54	mg/L	0.050	11/18/23 21:56	
EPA 9056	Chloride	35.9	mg/L	2.5	11/18/23 22:15	
EPA 9056	Sulfate	239	mg/L	2.5	11/18/23 22:15	
EPA 6010	Boron	2120	ug/L	100	11/17/23 17:28	
EPA 6010	Calcium	175000	ug/L	1000	11/17/23 17:28	
EPA 6010	Magnesium	41100	ug/L	1000	11/17/23 17:28	
EPA 6010	Potassium	3960	ug/L	1000	11/17/23 17:28	
EPA 6010	Silica	12900	ug/L	450	11/17/23 17:28	N2
EPA 6010	Sodium	32700	ug/L	1000	11/17/23 17:28	
EPA 6010	Boron, Dissolved	2230	ug/L	100	11/18/23 02:43	
EPA 6010	Magnesium, Dissolved	42900	ug/L	1000	11/18/23 02:43	
EPA 6010	Potassium, Dissolved	4320	ug/L	1000	11/18/23 02:43	
EPA 6020	Barium	21.3	ug/L	1.0	11/16/23 06:06	
EPA 6020	Cobalt	1.8	ug/L	1.0	11/16/23 06:06	
EPA 6020	Manganese	1610	ug/L	10.0	11/16/23 10:35	
EPA 6020	Manganese, Dissolved	1520	ug/L	10.0	11/14/23 10:06	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359162004	**MW-26B**					
EPA 903.1	Radium-226	0.189 ± 0.510 (0.946) C:NA T:91%	pCi/L		11/28/23 12:07	
EPA 904.0	Radium-228	0.175 ± 0.342 (0.752) C:84% T:89%	pCi/L		11/28/23 14:48	
Total Radium Calculation	Total Radium	0.364 ± 0.852 (1.70)	pCi/L		11/29/23 10:33	
SM 2320B	Alkalinity, Total as CaCO3	415	mg/L	10.0	11/13/23 23:38	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	415	mg/L	10.0	11/13/23 23:38	
SM 2540C	Total Dissolved Solids	803	mg/L	10.0	11/15/23 09:43	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	11/27/23 14:12	H3
SM 5310C	Total Organic Carbon	2.1	mg/L	1.0	11/18/23 07:15	
SM 5310C	Dissolved Organic Carbon	2.4	mg/L	1.0	11/21/23 02:44	
50359162005	**MW-26I**					
EPA 9056	Bromide	1.0	mg/L	0.050	11/19/23 00:05	
EPA 9056	Chloride	53.7	mg/L	2.5	11/19/23 00:23	
EPA 9056	Sulfate	462	mg/L	2.5	11/19/23 00:23	
EPA 6010	Boron	6430	ug/L	100	11/17/23 17:30	
EPA 6010	Calcium	244000	ug/L	2000	11/17/23 18:09	
EPA 6010	Iron	4160	ug/L	100	11/17/23 17:30	
EPA 6010	Lithium	29.4	ug/L	20.0	11/17/23 17:30	
EPA 6010	Magnesium	38900	ug/L	1000	11/17/23 17:30	
EPA 6010	Molybdenum	219	ug/L	10.0	11/17/23 17:30	
EPA 6010	Potassium	8730	ug/L	1000	11/17/23 17:30	
EPA 6010	Silica	13400	ug/L	450	11/17/23 17:30	N2
EPA 6010	Sodium	29400	ug/L	1000	11/17/23 17:30	
EPA 6010	Boron, Dissolved	5980	ug/L	100	11/18/23 02:44	
EPA 6010	Iron, Dissolved	3480	ug/L	100	11/18/23 02:44	
EPA 6010	Lithium, Dissolved	27.1	ug/L	20.0	11/18/23 02:44	
EPA 6010	Magnesium, Dissolved	39400	ug/L	1000	11/18/23 02:44	
EPA 6010	Molybdenum, Dissolved	189	ug/L	10.0	11/18/23 02:44	
EPA 6010	Potassium, Dissolved	9050	ug/L	1000	11/18/23 02:44	
EPA 6020	Aluminum	30.1	ug/L	10.0	11/16/23 06:09	
EPA 6020	Arsenic	1.6	ug/L	1.0	11/16/23 10:00	
EPA 6020	Barium	30.9	ug/L	1.0	11/16/23 06:09	
EPA 6020	Manganese	1940	ug/L	20.0	11/16/23 10:38	
EPA 6020	Manganese, Dissolved	1730	ug/L	10.0	11/14/23 10:09	
EPA 903.1	Radium-226	-0.0721 ± 0.706 (1.40) C:NA T:89%	pCi/L		11/28/23 12:07	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359162005	**MW-26I**					
EPA 904.0	Radium-228	0.326 ± 0.362 (0.757) C:81% T:85%	pCi/L		11/28/23 14:48	
Total Radium Calculation	Total Radium	0.326 ± 1.07 (2.16)	pCi/L		11/29/23 10:33	
SM 2320B	Alkalinity, Total as CaCO3	332	mg/L	10.0	11/13/23 23:38	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	332	mg/L	10.0	11/13/23 23:38	
SM 2540C	Total Dissolved Solids	1060	mg/L	10.0	11/15/23 09:43	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	11/27/23 14:12	H3
EPA 365.1	Phosphate as P04	0.32	mg/L	0.15	11/20/23 14:37	
SM 5310C	Total Organic Carbon	2.1	mg/L	1.0	11/18/23 07:25	
SM 5310C	Dissolved Organic Carbon	3.3	mg/L	1.0	11/21/23 02:55	
50359162006	**MW-28A**					
EPA 9056	Bromide	1.3	mg/L	0.050	11/19/23 00:42	
EPA 9056	Chloride	140	mg/L	2.5	11/19/23 01:00	
EPA 9056	Sulfate	1420	mg/L	25.0	11/22/23 12:29	
EPA 6010	Boron	26500	ug/L	100	11/17/23 17:31	
EPA 6010	Calcium	661000	ug/L	5000	11/17/23 18:10	
EPA 6010	Iron	8630	ug/L	100	11/17/23 17:31	
EPA 6010	Magnesium	12300	ug/L	1000	11/17/23 17:31	
EPA 6010	Molybdenum	1550	ug/L	10.0	11/17/23 17:31	
EPA 6010	Potassium	34300	ug/L	1000	11/17/23 17:31	
EPA 6010	Silica	11700	ug/L	450	11/17/23 17:31	N2
EPA 6010	Sodium	32700	ug/L	1000	11/17/23 17:31	
EPA 6010	Boron, Dissolved	27300	ug/L	100	11/18/23 02:46	
EPA 6010	Iron, Dissolved	8400	ug/L	100	11/18/23 02:46	
EPA 6010	Magnesium, Dissolved	11600	ug/L	1000	11/18/23 02:46	
EPA 6010	Molybdenum, Dissolved	1560	ug/L	10.0	11/18/23 02:46	
EPA 6010	Potassium, Dissolved	35900	ug/L	1000	11/18/23 02:46	
EPA 6020	Aluminum	65.7	ug/L	10.0	11/16/23 06:13	
EPA 6020	Arsenic	1.4	ug/L	1.0	11/16/23 10:04	
EPA 6020	Barium	31.2	ug/L	1.0	11/16/23 06:13	
EPA 6020	Manganese	2170	ug/L	20.0	11/16/23 10:42	
EPA 6020	Manganese, Dissolved	2100	ug/L	20.0	11/14/23 10:13	
EPA 903.1	Radium-226	0.972 ± 0.703 (0.979) C:NA T:88%	pCi/L		11/28/23 12:07	
EPA 904.0	Radium-228	1.06 ± 0.467 (0.789) C:85% T:86%	pCi/L		11/28/23 14:48	
Total Radium Calculation	Total Radium	2.03 ± 1.17 (1.77)	pCi/L		11/29/23 10:33	
SM 2320B	Alkalinity, Total as CaCO3	50.6	mg/L	10.0	11/13/23 23:38	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	50.6	mg/L	10.0	11/13/23 23:38	
SM 2540C	Total Dissolved Solids	2640	mg/L	20.0	11/15/23 09:43	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359162006	**MW-28A**					
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	11/27/23 14:13	H3
HACH 8146	Iron, Ferrous	1.6	mg/L	0.50	11/10/23 16:58	H3,N2
EPA 365.1	Phosphate as P04	0.27	mg/L	0.15	11/20/23 14:37	
SM 5310C	Total Organic Carbon	2.3	mg/L	1.0	11/18/23 07:36	
SM 5310C	Dissolved Organic Carbon	2.7	mg/L	1.0	11/21/23 03:06	
50359162007	**MW-26A**					
EPA 9056	Bromide	0.99	mg/L	0.050	11/19/23 01:19	
EPA 9056	Chloride	111	mg/L	2.5	11/19/23 01:37	
EPA 9056	Sulfate	1250	mg/L	25.0	11/22/23 12:46	
EPA 6010	Boron	21900	ug/L	100	11/17/23 17:33	
EPA 6010	Calcium	590000	ug/L	5000	11/17/23 18:12	
EPA 6010	Iron	7760	ug/L	100	11/17/23 17:33	
EPA 6010	Magnesium	21800	ug/L	1000	11/17/23 17:33	
EPA 6010	Molybdenum	1510	ug/L	10.0	11/17/23 17:33	
EPA 6010	Potassium	10800	ug/L	1000	11/17/23 17:33	
EPA 6010	Silica	12200	ug/L	450	11/17/23 17:33	N2
EPA 6010	Sodium	29500	ug/L	1000	11/17/23 17:33	
EPA 6010	Boron, Dissolved	21800	ug/L	100	11/18/23 02:47	
EPA 6010	Iron, Dissolved	7600	ug/L	100	11/18/23 02:47	
EPA 6010	Magnesium, Dissolved	22400	ug/L	1000	11/18/23 02:47	
EPA 6010	Molybdenum, Dissolved	1420	ug/L	10.0	11/18/23 02:47	
EPA 6010	Potassium, Dissolved	11400	ug/L	1000	11/18/23 02:47	
EPA 6020	Aluminum	35.9	ug/L	10.0	11/16/23 06:16	
EPA 6020	Arsenic	1.5	ug/L	1.0	11/16/23 10:07	
EPA 6020	Barium	30.0	ug/L	1.0	11/16/23 06:16	
EPA 6020	Manganese	2050	ug/L	20.0	11/16/23 10:45	
EPA 6020	Manganese, Dissolved	1950	ug/L	20.0	11/14/23 10:16	
EPA 903.1	Radium-226	0.313 ± 0.720 (1.30) C:NA T:88%	pCi/L		11/28/23 12:19	
EPA 904.0	Radium-228	1.01 ± 0.504 (0.892) C:81% T:79%	pCi/L		11/28/23 14:48	
Total Radium Calculation	Total Radium	1.32 ± 1.22 (2.19)	pCi/L		11/29/23 10:33	
SM 2320B	Alkalinity, Total as CaCO3	105	mg/L	10.0	11/13/23 23:38	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	105	mg/L	10.0	11/13/23 23:38	
SM 2540C	Total Dissolved Solids	2180	mg/L	20.0	11/15/23 09:44	
SM 4500-H+B	pH at 25 Degrees C	7.0	Std. Units	0.10	11/27/23 14:14	H3
HACH 8146	Iron, Ferrous	1.8	mg/L	0.50	11/10/23 16:54	H3,N2
EPA 365.1	Phosphate as P04	0.24	mg/L	0.15	11/20/23 14:38	
SM 5310C	Total Organic Carbon	2.3	mg/L	1.0	11/18/23 08:10	
SM 5310C	Dissolved Organic Carbon	2.6	mg/L	1.0	11/21/23 03:18	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Sample: MW-28B **Lab ID: 50359162001** Collected: 11/08/23 14:52 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**3.0**	mg/L	0.050	0.0090	1		11/18/23 20:06	24959-67-9	
Chloride	**76.0**	mg/L	2.5	0.67	10		11/18/23 20:25	16887-00-6	
Fluoride	**0.21**	mg/L	0.10	0.017	1		11/18/23 20:06	16984-48-8	
Sulfate	**577**	mg/L	25.0	19.0	100		11/18/23 20:43	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**7280**	ug/L	100	11.4	1	11/15/23 16:07	11/17/23 17:20	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/15/23 16:07	11/17/23 17:20	7440-43-9	
Calcium	**252000**	ug/L	2000	113	2	11/15/23 16:07	11/17/23 18:04	7440-70-2	
Iron	**997**	ug/L	100	18.1	1	11/15/23 16:07	11/17/23 17:20	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/15/23 16:07	11/17/23 17:20	7439-92-1	
Lithium	**126**	ug/L	20.0	5.1	1	11/15/23 16:07	11/17/23 17:20	7439-93-2	
Magnesium	**39600**	ug/L	1000	32.8	1	11/15/23 16:07	11/17/23 17:20	7439-95-4	
Molybdenum	**385**	ug/L	10.0	1.1	1	11/15/23 16:07	11/17/23 17:20	7439-98-7	
Potassium	**13900**	ug/L	1000	120	1	11/15/23 16:07	11/17/23 17:20	7440-09-7	
Silica	**13100**	ug/L	450		1	11/15/23 16:07	11/17/23 17:20	7631-86-9	N2
Sodium	**46600**	ug/L	1000	48.2	1	11/15/23 16:07	11/17/23 17:20	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**7310**	ug/L	100	6.2	1	11/17/23 08:18	11/18/23 02:39	7440-42-8	
Iron, Dissolved	**924**	ug/L	100	30.0	1	11/17/23 08:18	11/18/23 02:39	7439-89-6	
Lithium, Dissolved	**129**	ug/L	20.0	6.8	1	11/17/23 08:18	11/18/23 02:39	7439-93-2	
Magnesium, Dissolved	**40400**	ug/L	1000	33.6	1	11/17/23 08:18	11/18/23 02:39	7439-95-4	
Molybdenum, Dissolved	**383**	ug/L	10.0	0.78	1	11/17/23 08:18	11/18/23 02:39	7439-98-7	
Potassium, Dissolved	**14600**	ug/L	1000	97.8	1	11/17/23 08:18	11/18/23 02:39	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	4.4	1	11/15/23 16:18	11/16/23 05:49	7429-90-5	
Arsenic	**1.4**	ug/L	1.0	0.064	1	11/15/23 16:18	11/16/23 05:49	7440-38-2	
Barium	**40.4**	ug/L	1.0	0.067	1	11/15/23 16:18	11/16/23 05:49	7440-39-3	
Cobalt	**4.1**	ug/L	1.0	0.024	1	11/15/23 16:18	11/16/23 05:49	7440-48-4	
Manganese	**2660**	ug/L	25.0	1.1	25	11/15/23 16:18	11/16/23 10:25	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	11/15/23 16:18	11/16/23 05:49	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	11/13/23 07:41	11/14/23 06:24	7429-90-5	
Manganese, Dissolved	**2470**	ug/L	20.0	0.86	20	11/13/23 07:41	11/14/23 09:56	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Sample: MW-28B **Lab ID: 50359162001** Collected: 11/08/23 14:52 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**227**	mg/L	10.0	10.0	1		11/13/23 23:38		
Alkalinity,Bicarbonate (CaCO3)	**227**	mg/L	10.0	10.0	1		11/13/23 23:38		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/13/23 23:38		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1230**	mg/L	20.0	20.0	1		11/15/23 09:41		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		11/27/23 14:11		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 10:49	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**0.64**	mg/L	0.20	0.035	1		11/10/23 16:58	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/10/23 01:25	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/10/23 01:25	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/18/23 14:30	11/20/23 14:33		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**2.2**	mg/L	1.0	0.24	1		11/18/23 06:37	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.7**	mg/L	1.0	0.24	1		11/21/23 01:52		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Sample: DUP 6 **Lab ID: 50359162002** Collected: 11/08/23 08:00 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**3.1**	mg/L	0.050	0.0090	1		11/18/23 21:01	24959-67-9	
Chloride	**77.6**	mg/L	2.5	0.67	10		11/18/23 21:20	16887-00-6	
Fluoride	**0.21**	mg/L	0.10	0.017	1		11/18/23 21:01	16984-48-8	
Sulfate	**576**	mg/L	25.0	19.0	100		11/18/23 21:38	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**7520**	ug/L	100	11.4	1	11/15/23 16:07	11/17/23 17:22	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/15/23 16:07	11/17/23 17:22	7440-43-9	
Calcium	**258000**	ug/L	2000	113	2	11/15/23 16:07	11/17/23 18:06	7440-70-2	
Iron	**1030**	ug/L	100	18.1	1	11/15/23 16:07	11/17/23 17:22	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/15/23 16:07	11/17/23 17:22	7439-92-1	
Lithium	**132**	ug/L	20.0	5.1	1	11/15/23 16:07	11/17/23 17:22	7439-93-2	
Magnesium	**40600**	ug/L	1000	32.8	1	11/15/23 16:07	11/17/23 17:22	7439-95-4	
Molybdenum	**396**	ug/L	10.0	1.1	1	11/15/23 16:07	11/17/23 17:22	7439-98-7	
Potassium	**14300**	ug/L	1000	120	1	11/15/23 16:07	11/17/23 17:22	7440-09-7	
Silica	**13200**	ug/L	450		1	11/15/23 16:07	11/17/23 17:22	7631-86-9	N2
Sodium	**47500**	ug/L	1000	48.2	1	11/15/23 16:07	11/17/23 17:22	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**4660**	ug/L	100	6.2	1	11/17/23 08:18	11/18/23 02:40	7440-42-8	
Iron, Dissolved	**518**	ug/L	100	30.0	1	11/17/23 08:18	11/18/23 02:40	7439-89-6	
Lithium, Dissolved	**104**	ug/L	20.0	6.8	1	11/17/23 08:18	11/18/23 02:40	7439-93-2	
Magnesium, Dissolved	**32800**	ug/L	1000	33.6	1	11/17/23 08:18	11/18/23 02:40	7439-95-4	
Molybdenum, Dissolved	**335**	ug/L	10.0	0.78	1	11/17/23 08:18	11/18/23 02:40	7439-98-7	
Potassium, Dissolved	**12300**	ug/L	1000	97.8	1	11/17/23 08:18	11/18/23 02:40	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	4.4	1	11/15/23 16:18	11/16/23 05:52	7429-90-5	
Arsenic	**1.4**	ug/L	1.0	0.064	1	11/15/23 16:18	11/16/23 05:52	7440-38-2	
Barium	**39.6**	ug/L	1.0	0.067	1	11/15/23 16:18	11/16/23 05:52	7440-39-3	
Cobalt	**4.0**	ug/L	1.0	0.024	1	11/15/23 16:18	11/16/23 05:52	7440-48-4	
Manganese	**2670**	ug/L	25.0	1.1	25	11/15/23 16:18	11/16/23 10:28	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	11/15/23 16:18	11/16/23 05:52	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	11/13/23 07:41	11/14/23 06:28	7429-90-5	
Manganese, Dissolved	**2080**	ug/L	20.0	0.86	20	11/13/23 07:41	11/14/23 09:59	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Sample: DUP 6 **Lab ID: 50359162002** Collected: 11/08/23 08:00 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**214**	mg/L	10.0	10.0	1		11/13/23 23:38		
Alkalinity,Bicarbonate (CaCO3)	**214**	mg/L	10.0	10.0	1		11/13/23 23:38		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/13/23 23:38		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1190**	mg/L	20.0	20.0	1		11/15/23 09:42		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		11/27/23 14:11		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 10:49	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**0.62**	mg/L	0.20	0.035	1		11/10/23 16:37	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/10/23 01:01	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/10/23 01:01	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/18/23 14:30	11/20/23 14:33		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**2.4**	mg/L	1.0	0.24	1		11/18/23 06:47	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.2**	mg/L	1.0	0.24	1		11/21/23 02:22		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Sample: MW-28I **Lab ID: 50359162003** Collected: 11/08/23 16:03 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**2.0**	mg/L	0.050	0.0090	1		11/18/23 23:10	24959-67-9	
Chloride	**117**	mg/L	2.5	0.67	10		11/18/23 23:28	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/18/23 23:10	16984-48-8	
Sulfate	**1300**	mg/L	25.0	19.0	100		11/18/23 23:47	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**21000**	ug/L	100	11.4	1	11/15/23 16:07	11/17/23 17:27	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/15/23 16:07	11/17/23 17:27	7440-43-9	
Calcium	**569000**	ug/L	5000	284	5	11/15/23 16:07	11/17/23 18:07	7440-70-2	
Iron	**9640**	ug/L	100	18.1	1	11/15/23 16:07	11/17/23 17:27	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/15/23 16:07	11/17/23 17:27	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/15/23 16:07	11/17/23 17:27	7439-93-2	
Magnesium	**15300**	ug/L	1000	32.8	1	11/15/23 16:07	11/17/23 17:27	7439-95-4	
Molybdenum	**842**	ug/L	10.0	1.1	1	11/15/23 16:07	11/17/23 17:27	7439-98-7	
Potassium	**34100**	ug/L	1000	120	1	11/15/23 16:07	11/17/23 17:27	7440-09-7	
Silica	**12200**	ug/L	450		1	11/15/23 16:07	11/17/23 17:27	7631-86-9	N2
Sodium	**35600**	ug/L	1000	48.2	1	11/15/23 16:07	11/17/23 17:27	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**21600**	ug/L	100	6.2	1	11/17/23 08:18	11/18/23 02:41	7440-42-8	
Iron, Dissolved	**8770**	ug/L	100	30.0	1	11/17/23 08:18	11/18/23 02:41	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/17/23 08:18	11/18/23 02:41	7439-93-2	
Magnesium, Dissolved	**15000**	ug/L	1000	33.6	1	11/17/23 08:18	11/18/23 02:41	7439-95-4	
Molybdenum, Dissolved	**823**	ug/L	10.0	0.78	1	11/17/23 08:18	11/18/23 02:41	7439-98-7	
Potassium, Dissolved	**35700**	ug/L	1000	97.8	1	11/17/23 08:18	11/18/23 02:41	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**68.9**	ug/L	10.0	4.4	1	11/15/23 16:18	11/16/23 05:55	7429-90-5	
Arsenic	**1.1**	ug/L	1.0	0.064	1	11/15/23 16:18	11/16/23 05:55	7440-38-2	
Barium	**32.4**	ug/L	1.0	0.067	1	11/15/23 16:18	11/16/23 05:55	7440-39-3	
Cobalt	ND	ug/L	1.0	0.024	1	11/15/23 16:18	11/16/23 05:55	7440-48-4	
Manganese	**2070**	ug/L	20.0	0.86	20	11/15/23 16:18	11/16/23 10:31	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	11/15/23 16:18	11/16/23 05:55	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	11/13/23 07:41	11/14/23 06:31	7429-90-5	
Manganese, Dissolved	**1970**	ug/L	20.0	0.86	20	11/13/23 07:41	11/14/23 10:03	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Sample: MW-28I **Lab ID: 50359162003** Collected: 11/08/23 16:03 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**101**	mg/L	10.0	10.0	1		11/13/23 23:38		
Alkalinity,Bicarbonate (CaCO3)	**101**	mg/L	10.0	10.0	1		11/13/23 23:38		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/13/23 23:38		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2460**	mg/L	20.0	20.0	1		11/15/23 09:42		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		11/27/23 14:11		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	**0.027J**	mg/L	0.10	0.025	1		11/14/23 10:49	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**0.87**	mg/L	0.50	0.088	2.5		11/10/23 16:59	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/10/23 01:33	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/10/23 01:33	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.40**	mg/L	0.15	0.15	1	11/18/23 14:30	11/20/23 14:34		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**2.3**	mg/L	1.0	0.24	1		11/18/23 07:04	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.6**	mg/L	1.0	0.24	1		11/21/23 02:33		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Sample: MW-26B **Lab ID: 50359162004** Collected: 11/08/23 13:50 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.54**	mg/L	0.050	0.0090	1		11/18/23 21:56	24959-67-9	
Chloride	**35.9**	mg/L	2.5	0.67	10		11/18/23 22:15	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/18/23 21:56	16984-48-8	
Sulfate	**239**	mg/L	2.5	1.9	10		11/18/23 22:15	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**2120**	ug/L	100	11.4	1	11/15/23 16:07	11/17/23 17:28	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/15/23 16:07	11/17/23 17:28	7440-43-9	
Calcium	**175000**	ug/L	1000	56.7	1	11/15/23 16:07	11/17/23 17:28	7440-70-2	
Iron	ND	ug/L	100	18.1	1	11/15/23 16:07	11/17/23 17:28	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/15/23 16:07	11/17/23 17:28	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/15/23 16:07	11/17/23 17:28	7439-93-2	
Magnesium	**41100**	ug/L	1000	32.8	1	11/15/23 16:07	11/17/23 17:28	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	11/15/23 16:07	11/17/23 17:28	7439-98-7	
Potassium	**3960**	ug/L	1000	120	1	11/15/23 16:07	11/17/23 17:28	7440-09-7	
Silica	**12900**	ug/L	450		1	11/15/23 16:07	11/17/23 17:28	7631-86-9	N2
Sodium	**32700**	ug/L	1000	48.2	1	11/15/23 16:07	11/17/23 17:28	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**2230**	ug/L	100	6.2	1	11/17/23 08:18	11/18/23 02:43	7440-42-8	
Iron, Dissolved	ND	ug/L	100	30.0	1	11/17/23 08:18	11/18/23 02:43	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/17/23 08:18	11/18/23 02:43	7439-93-2	
Magnesium, Dissolved	**42900**	ug/L	1000	33.6	1	11/17/23 08:18	11/18/23 02:43	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	11/17/23 08:18	11/18/23 02:43	7439-98-7	
Potassium, Dissolved	**4320**	ug/L	1000	97.8	1	11/17/23 08:18	11/18/23 02:43	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	4.4	1	11/15/23 16:18	11/16/23 06:06	7429-90-5	
Arsenic	ND	ug/L	1.0	0.064	1	11/15/23 16:18	11/16/23 09:57	7440-38-2	
Barium	**21.3**	ug/L	1.0	0.067	1	11/15/23 16:18	11/16/23 06:06	7440-39-3	
Cobalt	**1.8**	ug/L	1.0	0.024	1	11/15/23 16:18	11/16/23 06:06	7440-48-4	
Manganese	**1610**	ug/L	10.0	0.43	10	11/15/23 16:18	11/16/23 10:35	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	11/15/23 16:18	11/16/23 09:57	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	11/13/23 07:41	11/14/23 06:35	7429-90-5	
Manganese, Dissolved	**1520**	ug/L	10.0	0.43	10	11/13/23 07:41	11/14/23 10:06	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Sample: MW-26B **Lab ID: 50359162004** Collected: 11/08/23 13:50 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**415**	mg/L	10.0	10.0	1		11/13/23 23:38		
Alkalinity,Bicarbonate (CaCO3)	**415**	mg/L	10.0	10.0	1		11/13/23 23:38		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/13/23 23:38		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**803**	mg/L	10.0	10.0	1		11/15/23 09:43		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		11/27/23 14:12		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 10:49	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/10/23 16:56	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/10/23 01:24	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/10/23 01:24	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/18/23 14:30	11/20/23 14:34		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**2.1**	mg/L	1.0	0.24	1		11/18/23 07:15	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.4**	mg/L	1.0	0.24	1		11/21/23 02:44		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Sample: MW-26I **Lab ID: 50359162005** Collected: 11/08/23 10:50 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**1.0**	mg/L	0.050	0.0090	1		11/19/23 00:05	24959-67-9	
Chloride	**53.7**	mg/L	2.5	0.67	10		11/19/23 00:23	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/19/23 00:05	16984-48-8	
Sulfate	**462**	mg/L	2.5	1.9	10		11/19/23 00:23	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**6430**	ug/L	100	11.4	1	11/15/23 16:07	11/17/23 17:30	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/15/23 16:07	11/17/23 17:30	7440-43-9	
Calcium	**244000**	ug/L	2000	113	2	11/15/23 16:07	11/17/23 18:09	7440-70-2	
Iron	**4160**	ug/L	100	18.1	1	11/15/23 16:07	11/17/23 17:30	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/15/23 16:07	11/17/23 17:30	7439-92-1	
Lithium	**29.4**	ug/L	20.0	5.1	1	11/15/23 16:07	11/17/23 17:30	7439-93-2	
Magnesium	**38900**	ug/L	1000	32.8	1	11/15/23 16:07	11/17/23 17:30	7439-95-4	
Molybdenum	**219**	ug/L	10.0	1.1	1	11/15/23 16:07	11/17/23 17:30	7439-98-7	
Potassium	**8730**	ug/L	1000	120	1	11/15/23 16:07	11/17/23 17:30	7440-09-7	
Silica	**13400**	ug/L	450		1	11/15/23 16:07	11/17/23 17:30	7631-86-9	N2
Sodium	**29400**	ug/L	1000	48.2	1	11/15/23 16:07	11/17/23 17:30	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**5980**	ug/L	100	6.2	1	11/17/23 08:18	11/18/23 02:44	7440-42-8	
Iron, Dissolved	**3480**	ug/L	100	30.0	1	11/17/23 08:18	11/18/23 02:44	7439-89-6	
Lithium, Dissolved	**27.1**	ug/L	20.0	6.8	1	11/17/23 08:18	11/18/23 02:44	7439-93-2	
Magnesium, Dissolved	**39400**	ug/L	1000	33.6	1	11/17/23 08:18	11/18/23 02:44	7439-95-4	
Molybdenum, Dissolved	**189**	ug/L	10.0	0.78	1	11/17/23 08:18	11/18/23 02:44	7439-98-7	
Potassium, Dissolved	**9050**	ug/L	1000	97.8	1	11/17/23 08:18	11/18/23 02:44	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**30.1**	ug/L	10.0	4.4	1	11/15/23 16:18	11/16/23 06:09	7429-90-5	
Arsenic	**1.6**	ug/L	1.0	0.064	1	11/15/23 16:18	11/16/23 10:00	7440-38-2	
Barium	**30.9**	ug/L	1.0	0.067	1	11/15/23 16:18	11/16/23 06:09	7440-39-3	
Cobalt	ND	ug/L	1.0	0.024	1	11/15/23 16:18	11/16/23 06:09	7440-48-4	
Manganese	**1940**	ug/L	20.0	0.86	20	11/15/23 16:18	11/16/23 10:38	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	11/15/23 16:18	11/16/23 10:00	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	11/13/23 07:41	11/14/23 06:45	7429-90-5	
Manganese, Dissolved	**1730**	ug/L	10.0	0.43	10	11/13/23 07:41	11/14/23 10:09	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Sample: MW-26I **Lab ID: 50359162005** Collected: 11/08/23 10:50 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**332**	mg/L	10.0	10.0	1		11/13/23 23:38		
Alkalinity,Bicarbonate (CaCO3)	**332**	mg/L	10.0	10.0	1		11/13/23 23:38		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/13/23 23:38		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1060**	mg/L	10.0	10.0	1		11/15/23 09:43		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		11/27/23 14:12		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 10:49	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/10/23 16:39	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/10/23 01:07	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/10/23 01:07	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.32**	mg/L	0.15	0.15	1	11/18/23 14:30	11/20/23 14:37		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**2.1**	mg/L	1.0	0.24	1		11/18/23 07:25	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.3**	mg/L	1.0	0.24	1		11/21/23 02:55		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Sample: MW-28A **Lab ID: 50359162006** Collected: 11/08/23 15:30 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**1.3**	mg/L	0.050	0.0090	1		11/19/23 00:42	24959-67-9	
Chloride	**140**	mg/L	2.5	0.67	10		11/19/23 01:00	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/19/23 00:42	16984-48-8	
Sulfate	**1420**	mg/L	25.0	19.0	100		11/22/23 12:29	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**26500**	ug/L	100	11.4	1	11/15/23 16:07	11/17/23 17:31	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/15/23 16:07	11/17/23 17:31	7440-43-9	
Calcium	**661000**	ug/L	5000	284	5	11/15/23 16:07	11/17/23 18:10	7440-70-2	
Iron	**8630**	ug/L	100	18.1	1	11/15/23 16:07	11/17/23 17:31	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/15/23 16:07	11/17/23 17:31	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/15/23 16:07	11/17/23 17:31	7439-93-2	
Magnesium	**12300**	ug/L	1000	32.8	1	11/15/23 16:07	11/17/23 17:31	7439-95-4	
Molybdenum	**1550**	ug/L	10.0	1.1	1	11/15/23 16:07	11/17/23 17:31	7439-98-7	
Potassium	**34300**	ug/L	1000	120	1	11/15/23 16:07	11/17/23 17:31	7440-09-7	
Silica	**11700**	ug/L	450		1	11/15/23 16:07	11/17/23 17:31	7631-86-9	N2
Sodium	**32700**	ug/L	1000	48.2	1	11/15/23 16:07	11/17/23 17:31	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**27300**	ug/L	100	6.2	1	11/17/23 08:18	11/18/23 02:46	7440-42-8	
Iron, Dissolved	**8400**	ug/L	100	30.0	1	11/17/23 08:18	11/18/23 02:46	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/17/23 08:18	11/18/23 02:46	7439-93-2	
Magnesium, Dissolved	**11600**	ug/L	1000	33.6	1	11/17/23 08:18	11/18/23 02:46	7439-95-4	
Molybdenum, Dissolved	**1560**	ug/L	10.0	0.78	1	11/17/23 08:18	11/18/23 02:46	7439-98-7	
Potassium, Dissolved	**35900**	ug/L	1000	97.8	1	11/17/23 08:18	11/18/23 02:46	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**65.7**	ug/L	10.0	4.4	1	11/15/23 16:18	11/16/23 06:13	7429-90-5	
Arsenic	**1.4**	ug/L	1.0	0.064	1	11/15/23 16:18	11/16/23 10:04	7440-38-2	
Barium	**31.2**	ug/L	1.0	0.067	1	11/15/23 16:18	11/16/23 06:13	7440-39-3	
Cobalt	ND	ug/L	1.0	0.024	1	11/15/23 16:18	11/16/23 06:13	7440-48-4	
Manganese	**2170**	ug/L	20.0	0.86	20	11/15/23 16:18	11/16/23 10:42	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	11/15/23 16:18	11/16/23 10:04	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	11/13/23 07:41	11/14/23 06:48	7429-90-5	
Manganese, Dissolved	**2100**	ug/L	20.0	0.86	20	11/13/23 07:41	11/14/23 10:13	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Sample: MW-28A **Lab ID: 50359162006** Collected: 11/08/23 15:30 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**50.6**	mg/L	10.0	10.0	1		11/13/23 23:38		
Alkalinity,Bicarbonate (CaCO3)	**50.6**	mg/L	10.0	10.0	1		11/13/23 23:38		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/13/23 23:38		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2640**	mg/L	20.0	20.0	1		11/15/23 09:43		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		11/27/23 14:13		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 10:49	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**1.6**	mg/L	0.50	0.088	2.5		11/10/23 16:58	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/10/23 01:27	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/10/23 01:27	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.27**	mg/L	0.15	0.15	1	11/18/23 14:30	11/20/23 14:37		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**2.3**	mg/L	1.0	0.24	1		11/18/23 07:36	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.7**	mg/L	1.0	0.24	1		11/21/23 03:06		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Sample: MW-26A **Lab ID: 50359162007** Collected: 11/08/23 12:00 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.99**	mg/L	0.050	0.0090	1		11/19/23 01:19	24959-67-9	
Chloride	**111**	mg/L	2.5	0.67	10		11/19/23 01:37	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/19/23 01:19	16984-48-8	
Sulfate	**1250**	mg/L	25.0	19.0	100		11/22/23 12:46	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**21900**	ug/L	100	11.4	1	11/15/23 16:07	11/17/23 17:33	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/15/23 16:07	11/17/23 17:33	7440-43-9	
Calcium	**590000**	ug/L	5000	284	5	11/15/23 16:07	11/17/23 18:12	7440-70-2	
Iron	**7760**	ug/L	100	18.1	1	11/15/23 16:07	11/17/23 17:33	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/15/23 16:07	11/17/23 17:33	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/15/23 16:07	11/17/23 17:33	7439-93-2	
Magnesium	**21800**	ug/L	1000	32.8	1	11/15/23 16:07	11/17/23 17:33	7439-95-4	
Molybdenum	**1510**	ug/L	10.0	1.1	1	11/15/23 16:07	11/17/23 17:33	7439-98-7	
Potassium	**10800**	ug/L	1000	120	1	11/15/23 16:07	11/17/23 17:33	7440-09-7	
Silica	**12200**	ug/L	450		1	11/15/23 16:07	11/17/23 17:33	7631-86-9	N2
Sodium	**29500**	ug/L	1000	48.2	1	11/15/23 16:07	11/17/23 17:33	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**21800**	ug/L	100	6.2	1	11/17/23 08:18	11/18/23 02:47	7440-42-8	
Iron, Dissolved	**7600**	ug/L	100	30.0	1	11/17/23 08:18	11/18/23 02:47	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/17/23 08:18	11/18/23 02:47	7439-93-2	
Magnesium, Dissolved	**22400**	ug/L	1000	33.6	1	11/17/23 08:18	11/18/23 02:47	7439-95-4	
Molybdenum, Dissolved	**1420**	ug/L	10.0	0.78	1	11/17/23 08:18	11/18/23 02:47	7439-98-7	
Potassium, Dissolved	**11400**	ug/L	1000	97.8	1	11/17/23 08:18	11/18/23 02:47	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**35.9**	ug/L	10.0	4.4	1	11/15/23 16:18	11/16/23 06:16	7429-90-5	
Arsenic	**1.5**	ug/L	1.0	0.064	1	11/15/23 16:18	11/16/23 10:07	7440-38-2	
Barium	**30.0**	ug/L	1.0	0.067	1	11/15/23 16:18	11/16/23 06:16	7440-39-3	
Cobalt	ND	ug/L	1.0	0.024	1	11/15/23 16:18	11/16/23 06:16	7440-48-4	
Manganese	**2050**	ug/L	20.0	0.86	20	11/15/23 16:18	11/16/23 10:45	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	11/15/23 16:18	11/16/23 10:07	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	11/13/23 07:41	11/14/23 06:52	7429-90-5	
Manganese, Dissolved	**1950**	ug/L	20.0	0.86	20	11/13/23 07:41	11/14/23 10:16	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Sample: MW-26A **Lab ID: 50359162007** Collected: 11/08/23 12:00 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**105**	mg/L	10.0	10.0	1		11/13/23 23:38		
Alkalinity,Bicarbonate (CaCO3)	**105**	mg/L	10.0	10.0	1		11/13/23 23:38		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/13/23 23:38		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2180**	mg/L	20.0	20.0	1		11/15/23 09:44		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.0**	Std. Units	0.10	0.10	1		11/27/23 14:14		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 10:49	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**1.8**	mg/L	0.50	0.088	2.5		11/10/23 16:54	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/10/23 01:11	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/10/23 01:11	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.24**	mg/L	0.15	0.15	1	11/18/23 14:30	11/20/23 14:38		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**2.3**	mg/L	1.0	0.24	1		11/18/23 08:10	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.6**	mg/L	1.0	0.24	1		11/21/23 03:18		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

QC Batch: 762643
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

METHOD BLANK: 3495683 Matrix: Water
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	11/19/23 14:29	
Chloride	mg/L	ND	0.25	0.067	11/19/23 14:29	
Fluoride	mg/L	ND	0.10	0.017	11/19/23 14:29	
Sulfate	mg/L	ND	0.25	0.19	11/19/23 14:29	

LABORATORY CONTROL SAMPLE: 3495684

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.95	95	80-120	
Chloride	mg/L	2.5	2.3	92	80-120	
Fluoride	mg/L	1	0.97	97	80-120	
Sulfate	mg/L	5	4.8	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495685 3495686

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	0.50	1	1	1.5	1.4	95	94	80-120	0	15	
Chloride	mg/L	40.7	25	25	64.8	64.7	96	96	80-120	0	15	
Fluoride	mg/L	0.18	1	1	1.2	1.2	99	99	80-120	1	15	
Sulfate	mg/L	1420	500	500	1930	1930	102	101	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

QC Batch: 762698
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

METHOD BLANK: 3495904 Matrix: Water
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	11.4	11/17/23 17:16	
Cadmium	ug/L	ND	2.0	0.74	11/17/23 17:16	
Calcium	ug/L	ND	1000	56.7	11/17/23 17:16	
Iron	ug/L	ND	100	18.1	11/17/23 17:16	
Lead	ug/L	ND	10.0	4.0	11/17/23 17:16	
Lithium	ug/L	ND	20.0	5.1	11/17/23 17:16	
Magnesium	ug/L	ND	1000	32.8	11/17/23 17:16	
Molybdenum	ug/L	ND	10.0	1.1	11/17/23 17:16	
Potassium	ug/L	ND	1000	120	11/17/23 17:16	
Silica	ug/L	ND	450		11/17/23 17:16	N2
Sodium	ug/L	ND	1000	48.2	11/17/23 17:16	

LABORATORY CONTROL SAMPLE: 3495905

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	924	92	80-120	
Cadmium	ug/L	1000	949	95	80-120	
Calcium	ug/L	10000	9830	98	80-120	
Iron	ug/L	10000	9790	98	80-120	
Lead	ug/L	1000	937	94	80-120	
Lithium	ug/L	1000	957	96	80-120	
Magnesium	ug/L	10000	9480	95	80-120	
Molybdenum	ug/L	1000	1010	101	80-120	
Potassium	ug/L	10000	9470	95	80-120	
Silica	ug/L	10700	10100	94	80-120	N2
Sodium	ug/L	10000	9460	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495906 3495907

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	4190	1000	1000	5110	5050	92	87	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	960	956	96	96	75-125	0	20	
Calcium	ug/L	562000	10000	10000	558000	555000	-39	-74	75-125	1	20	E,P6
Iron	ug/L	ND	10000	10000	9500	9380	95	94	75-125	1	20	
Lead	ug/L	ND	1000	1000	865	862	87	86	75-125	0	20	
Lithium	ug/L	345	1000	1000	1270	1260	92	92	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495906 3495907

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Magnesium	ug/L	53100	10000	10000	61100	60400	80	73	75-125	1	20	P6
Molybdenum	ug/L	ND	1000	1000	1010	1010	100	100	75-125	0	20	
Potassium	ug/L	60200	10000	10000	68800	68600	86	84	75-125	0	20	
Silica	ug/L	20000	10700	10700	30500	30400	99	98	75-125	0	20	N2
Sodium	ug/L	79300	10000	10000	87000	86700	77	75	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

QC Batch: 763240
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

METHOD BLANK: 3498338 Matrix: Water
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	11/18/23 02:20	
Iron, Dissolved	ug/L	ND	100	30.0	11/18/23 02:20	
Lithium, Dissolved	ug/L	ND	20.0	6.8	11/18/23 02:20	
Magnesium, Dissolved	ug/L	ND	1000	33.6	11/18/23 02:20	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	11/18/23 02:20	
Potassium, Dissolved	ug/L	ND	1000	97.8	11/18/23 02:20	

LABORATORY CONTROL SAMPLE: 3498339

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	984	98	80-120	
Iron, Dissolved	ug/L	10000	9980	100	80-120	
Lithium, Dissolved	ug/L	1000	1020	102	80-120	
Magnesium, Dissolved	ug/L	10000	10000	100	80-120	
Molybdenum, Dissolved	ug/L	1000	1030	103	80-120	
Potassium, Dissolved	ug/L	10000	10000	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498340 3498341

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	4370	1000	1000	5290	5200	92	83	75-125	2	20	
Iron, Dissolved	ug/L	ND	10000	10000	9590	9520	96	95	75-125	1	20	
Lithium, Dissolved	ug/L	369	1000	1000	1390	1380	102	101	75-125	1	20	
Magnesium, Dissolved	ug/L	53900	10000	10000	62500	61300	86	74	75-125	2	20	P6
Molybdenum, Dissolved	ug/L	ND	1000	1000	1030	1020	102	101	75-125	1	20	
Potassium, Dissolved	ug/L	63200	10000	10000	72700	70700	95	75	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

QC Batch: 763013
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

METHOD BLANK: 3497196 Matrix: Water
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	4.4	11/16/23 13:10	
Arsenic	ug/L	ND	1.0	0.064	11/16/23 13:10	
Barium	ug/L	ND	1.0	0.067	11/16/23 13:10	
Cobalt	ug/L	ND	1.0	0.024	11/16/23 13:10	
Manganese	ug/L	ND	1.0	0.043	11/16/23 13:10	
Selenium	ug/L	ND	1.0	0.23	11/16/23 13:10	

LABORATORY CONTROL SAMPLE: 3497197

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	423	106	80-120	
Arsenic	ug/L	40	36.5	91	80-120	
Barium	ug/L	40	39.6	99	80-120	
Cobalt	ug/L	40	40.7	102	80-120	
Manganese	ug/L	40	39.9	100	80-120	
Selenium	ug/L	40	40.5	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3497198 3497199

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	ND	400	400	396	402	97	98	75-125	2	20	
Arsenic	ug/L	ND	40	40	39.8	40.2	99	100	75-125	1	20	
Barium	ug/L	29.3	40	40	71.2	71.4	105	105	75-125	0	20	
Cobalt	ug/L	1.0	40	40	38.7	38.8	94	95	75-125	0	20	
Manganese	ug/L	2460	40	40	2500	2480	93	37	75-125	1	20	P6
Selenium	ug/L	ND	40	40	43.6	44.6	108	111	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

QC Batch: 762361
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

METHOD BLANK: 3494883 Matrix: Water
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	4.4	11/14/23 06:03	
Manganese, Dissolved	ug/L	ND	1.0	0.043	11/14/23 06:03	

LABORATORY CONTROL SAMPLE: 3494884

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	401	100	80-120	
Manganese, Dissolved	ug/L	40	41.1	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3494885 3494886

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	426	429	106	107	75-125	1	20	
Manganese, Dissolved	ug/L	2490	40	40	2490	2530	-6	105	75-125	2	20	P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

QC Batch: 762684
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

METHOD BLANK: 3495859 Matrix: Water
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/13/23 23:38	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/13/23 23:38	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/13/23 23:38	

LABORATORY CONTROL SAMPLE: 3495860

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.1	98	90-110	

SAMPLE DUPLICATE: 3495861

Parameter	Units	50359111021 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	311	317	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	311	317	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3495862

Parameter	Units	50359128001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	375	387	3	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	375	387	3	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

QC Batch: 762769 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

METHOD BLANK: 3496163 Matrix: Water
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/15/23 09:37	

LABORATORY CONTROL SAMPLE: 3496164

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	270	90	80-120	

SAMPLE DUPLICATE: 3496165

Parameter	Units	50359133001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	500	542	8	10	

SAMPLE DUPLICATE: 3496166

Parameter	Units	50359167001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2650	2670	1	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

QC Batch: 764862
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

SAMPLE DUPLICATE: 3505588

Parameter	Units	50359111028 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.7	6.7	0	2	H3

SAMPLE DUPLICATE: 3505589

Parameter	Units	50359170001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.2	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

QC Batch: 762749 | Analysis Method: SM 4500-S2-D
QC Batch Method: SM 4500-S2-D | Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

METHOD BLANK: 3496081 Matrix: Water
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/14/23 10:49	

LABORATORY CONTROL SAMPLE: 3496082

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.51	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3496083 3496084

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.54	0.52	107	103	90-110	4	20	

MATRIX SPIKE SAMPLE: 3496085

Parameter	Units	50359185001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	5	5.8	115	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

QC Batch: 762234 | Analysis Method: HACH 8146
QC Batch Method: HACH 8146 | Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

METHOD BLANK: 3493977 Matrix: Water
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/10/23 16:35	H3,N2

LABORATORY CONTROL SAMPLE: 3493978

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	0.98	98	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3493979 3493980

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.0	107	102	90-110	5	20	H3,N2

MATRIX SPIKE SAMPLE: 3493981

Parameter	Units	50359162004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.0	105	90-110	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

QC Batch: 762010
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

METHOD BLANK: 3492953 Matrix: Water
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/10/23 00:58	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/10/23 00:58	

LABORATORY CONTROL SAMPLE: 3492954

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	103	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3492955 3492956

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.1	1.1	102	101	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	103	104	90-110	0	20	

MATRIX SPIKE SAMPLE: 3492981

Parameter	Units	50359160001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	2.7	1	3.5	86	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	103	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

QC Batch: 763770 Analysis Method: EPA 365.1
QC Batch Method: EPA 365.1 Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

METHOD BLANK: 3501198 Matrix: Water
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	11/20/23 14:32	

LABORATORY CONTROL SAMPLE: 3501199

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3501200 3501201

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.6	1.6				1		

MATRIX SPIKE SAMPLE: 3501202

Parameter	Units	50359846001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	1.5		3.0			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

QC Batch: 763573 Analysis Method: SM 5310C
QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

METHOD BLANK: 3500128 Matrix: Water
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	11/18/23 05:11	

LABORATORY CONTROL SAMPLE: 3500129

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.7	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3500130 3500131

Parameter	Units	50359248001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	2.8J	10	10	12.2	11.7	94	90	80-120	4	20	

MATRIX SPIKE SAMPLE: 3500132

Parameter	Units	50359248007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	72.9	80	157	105	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

QC Batch: 764031
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

METHOD BLANK: 3502328 Matrix: Water
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	11/20/23 23:01	

LABORATORY CONTROL SAMPLE: 3502329

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3502330 3502331

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	4.4	10	10	13.5	13.4	91	90	80-120	1	20	

MATRIX SPIKE SAMPLE: 3502332

Parameter	Units	50359167003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	1.8	10	11.5	97	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Sample: MW-28B **Lab ID: 50359162001** Collected: 11/08/23 14:52 Received: 11/09/23 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.183 ± 0.547 (1.01) C:NA T:92%**	pCi/L	11/28/23 12:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.348 ± 0.300 (0.597) C:86% T:83%**	pCi/L	11/28/23 14:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.531 ± 0.847 (1.61)**	pCi/L	11/29/23 10:33	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Sample: DUP 6 **Lab ID: 50359162002** Collected: 11/08/23 08:00 Received: 11/09/23 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.463 ± 0.470 (0.712) C:NA T:87%**	pCi/L	11/28/23 12:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.369 ± 0.336 (0.678) C:82% T:82%**	pCi/L	11/28/23 14:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.832 ± 0.806 (1.39)**	pCi/L	11/29/23 10:33	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Sample: MW-28I **Lab ID: 50359162003** Collected: 11/08/23 16:03 Received: 11/09/23 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0626 ± 0.475 (0.940) C:NA T:90%**	pCi/L	11/28/23 12:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.737 ± 0.407 (0.741) C:84% T:88%**	pCi/L	11/28/23 14:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.800 ± 0.882 (1.68)**	pCi/L	11/29/23 10:33	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Sample: MW-26B **Lab ID: 50359162004** Collected: 11/08/23 13:50 Received: 11/09/23 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.189 ± 0.510 (0.946) C:NA T:91%**	pCi/L	11/28/23 12:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.175 ± 0.342 (0.752) C:84% T:89%**	pCi/L	11/28/23 14:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.364 ± 0.852 (1.70)**	pCi/L	11/29/23 10:33	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Sample: MW-26I **Lab ID: 50359162005** Collected: 11/08/23 10:50 Received: 11/09/23 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.0721 ± 0.706 (1.40) C:NA T:89%**	pCi/L	11/28/23 12:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.326 ± 0.362 (0.757) C:81% T:85%**	pCi/L	11/28/23 14:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.326 ± 1.07 (2.16)**	pCi/L	11/29/23 10:33	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Sample: MW-28A **Lab ID: 50359162006** Collected: 11/08/23 15:30 Received: 11/09/23 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.972 ± 0.703 (0.979) C:NA T:88%**	pCi/L	11/28/23 12:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.06 ± 0.467 (0.789) C:85% T:86%**	pCi/L	11/28/23 14:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.03 ± 1.17 (1.77)**	pCi/L	11/29/23 10:33	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Sample: MW-26A **Lab ID: 50359162007** Collected: 11/08/23 12:00 Received: 11/09/23 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.313 ± 0.720 (1.30) C:NA T:88%**	pCi/L	11/28/23 12:19	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.01 ± 0.504 (0.892) C:81% T:79%**	pCi/L	11/28/23 14:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.32 ± 1.22 (2.19)**	pCi/L	11/29/23 10:33	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

QC Batch: 630786
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

METHOD BLANK: 3075595
Matrix: Water
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0633 ± 0.296 (0.677) C:80% T:86%	pCi/L	11/28/23 14:46	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

QC Batch: 630785
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

METHOD BLANK: 3075593
Matrix: Water
Associated Lab Samples: 50359162001, 50359162002, 50359162003, 50359162004, 50359162005, 50359162006, 50359162007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.198 ± 0.308 (0.534) C:NA T:93%	pCi/L	11/28/23 11:55	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359162001	**MW-28B**	EPA 9056	762643		
50359162002	**DUP 6**	EPA 9056	762643		
50359162003	**MW-28I**	EPA 9056	762643		
50359162004	**MW-26B**	EPA 9056	762643		
50359162005	**MW-26I**	EPA 9056	762643		
50359162006	**MW-28A**	EPA 9056	762643		
50359162007	**MW-26A**	EPA 9056	762643		
50359162001	**MW-28B**	EPA 3010	762698	EPA 6010	763695
50359162002	**DUP 6**	EPA 3010	762698	EPA 6010	763695
50359162003	**MW-28I**	EPA 3010	762698	EPA 6010	763695
50359162004	**MW-26B**	EPA 3010	762698	EPA 6010	763695
50359162005	**MW-26I**	EPA 3010	762698	EPA 6010	763695
50359162006	**MW-28A**	EPA 3010	762698	EPA 6010	763695
50359162007	**MW-26A**	EPA 3010	762698	EPA 6010	763695
50359162001	**MW-28B**	EPA 3010	763240	EPA 6010	763747
50359162002	**DUP 6**	EPA 3010	763240	EPA 6010	763747
50359162003	**MW-28I**	EPA 3010	763240	EPA 6010	763747
50359162004	**MW-26B**	EPA 3010	763240	EPA 6010	763747
50359162005	**MW-26I**	EPA 3010	763240	EPA 6010	763747
50359162006	**MW-28A**	EPA 3010	763240	EPA 6010	763747
50359162007	**MW-26A**	EPA 3010	763240	EPA 6010	763747
50359162001	**MW-28B**	EPA 200.2	763013	EPA 6020	763255
50359162002	**DUP 6**	EPA 200.2	763013	EPA 6020	763255
50359162003	**MW-28I**	EPA 200.2	763013	EPA 6020	763255
50359162004	**MW-26B**	EPA 200.2	763013	EPA 6020	763255
50359162005	**MW-26I**	EPA 200.2	763013	EPA 6020	763255
50359162006	**MW-28A**	EPA 200.2	763013	EPA 6020	763255
50359162007	**MW-26A**	EPA 200.2	763013	EPA 6020	763255
50359162001	**MW-28B**	EPA 200.2	762361	EPA 6020	762612
50359162002	**DUP 6**	EPA 200.2	762361	EPA 6020	762612
50359162003	**MW-28I**	EPA 200.2	762361	EPA 6020	762612
50359162004	**MW-26B**	EPA 200.2	762361	EPA 6020	762612
50359162005	**MW-26I**	EPA 200.2	762361	EPA 6020	762612
50359162006	**MW-28A**	EPA 200.2	762361	EPA 6020	762612
50359162007	**MW-26A**	EPA 200.2	762361	EPA 6020	762612
50359162001	**MW-28B**	EPA 903.1	630785		
50359162002	**DUP 6**	EPA 903.1	630785		
50359162003	**MW-28I**	EPA 903.1	630785		
50359162004	**MW-26B**	EPA 903.1	630785		
50359162005	**MW-26I**	EPA 903.1	630785		
50359162006	**MW-28A**	EPA 903.1	630785		
50359162007	**MW-26A**	EPA 903.1	630785		
50359162001	**MW-28B**	EPA 904.0	630786		
50359162002	**DUP 6**	EPA 904.0	630786		
50359162003	**MW-28I**	EPA 904.0	630786		
50359162004	**MW-26B**	EPA 904.0	630786		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359162005	**MW-26I**	EPA 904.0	630786		
50359162006	**MW-28A**	EPA 904.0	630786		
50359162007	**MW-26A**	EPA 904.0	630786		
50359162001	**MW-28B**	Total Radium Calculation	632630		
50359162002	**DUP 6**	Total Radium Calculation	632630		
50359162003	**MW-28I**	Total Radium Calculation	632630		
50359162004	**MW-26B**	Total Radium Calculation	632630		
50359162005	**MW-26I**	Total Radium Calculation	632630		
50359162006	**MW-28A**	Total Radium Calculation	632630		
50359162007	**MW-26A**	Total Radium Calculation	632630		
50359162001	**MW-28B**	SM 2320B	762684		
50359162002	**DUP 6**	SM 2320B	762684		
50359162003	**MW-28I**	SM 2320B	762684		
50359162004	**MW-26B**	SM 2320B	762684		
50359162005	**MW-26I**	SM 2320B	762684		
50359162006	**MW-28A**	SM 2320B	762684		
50359162007	**MW-26A**	SM 2320B	762684		
50359162001	**MW-28B**	SM 2540C	762769		
50359162002	**DUP 6**	SM 2540C	762769		
50359162003	**MW-28I**	SM 2540C	762769		
50359162004	**MW-26B**	SM 2540C	762769		
50359162005	**MW-26I**	SM 2540C	762769		
50359162006	**MW-28A**	SM 2540C	762769		
50359162007	**MW-26A**	SM 2540C	762769		
50359162001	**MW-28B**	SM 4500-H+B	764862		
50359162002	**DUP 6**	SM 4500-H+B	764862		
50359162003	**MW-28I**	SM 4500-H+B	764862		
50359162004	**MW-26B**	SM 4500-H+B	764862		
50359162005	**MW-26I**	SM 4500-H+B	764862		
50359162006	**MW-28A**	SM 4500-H+B	764862		
50359162007	**MW-26A**	SM 4500-H+B	764862		
50359162001	**MW-28B**	SM 4500-S2-D	762749		
50359162002	**DUP 6**	SM 4500-S2-D	762749		
50359162003	**MW-28I**	SM 4500-S2-D	762749		
50359162004	**MW-26B**	SM 4500-S2-D	762749		
50359162005	**MW-26I**	SM 4500-S2-D	762749		
50359162006	**MW-28A**	SM 4500-S2-D	762749		
50359162007	**MW-26A**	SM 4500-S2-D	762749		
50359162001	**MW-28B**	HACH 8146	762234		
50359162002	**DUP 6**	HACH 8146	762234		
50359162003	**MW-28I**	HACH 8146	762234		
50359162004	**MW-26B**	HACH 8146	762234		
50359162005	**MW-26I**	HACH 8146	762234		
50359162006	**MW-28A**	HACH 8146	762234		
50359162007	**MW-26A**	HACH 8146	762234		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359162

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359162001	**MW-28B**	EPA 353.2	762010		
50359162002	**DUP 6**	EPA 353.2	762010		
50359162003	**MW-28I**	EPA 353.2	762010		
50359162004	**MW-26B**	EPA 353.2	762010		
50359162005	**MW-26I**	EPA 353.2	762010		
50359162006	**MW-28A**	EPA 353.2	762010		
50359162007	**MW-26A**	EPA 353.2	762010		
50359162001	**MW-28B**	EPA 365.1	763770	EPA 365.1	764046
50359162002	**DUP 6**	EPA 365.1	763770	EPA 365.1	764046
50359162003	**MW-28I**	EPA 365.1	763770	EPA 365.1	764046
50359162004	**MW-26B**	EPA 365.1	763770	EPA 365.1	764046
50359162005	**MW-26I**	EPA 365.1	763770	EPA 365.1	764046
50359162006	**MW-28A**	EPA 365.1	763770	EPA 365.1	764046
50359162007	**MW-26A**	EPA 365.1	763770	EPA 365.1	764046
50359162001	**MW-28B**	SM 5310C	763573		
50359162002	**DUP 6**	SM 5310C	763573		
50359162003	**MW-28I**	SM 5310C	763573		
50359162004	**MW-26B**	SM 5310C	763573		
50359162005	**MW-26I**	SM 5310C	763573		
50359162006	**MW-28A**	SM 5310C	763573		
50359162007	**MW-26A**	SM 5310C	763573		
50359162001	**MW-28B**	SM 5310C	764031		
50359162002	**DUP 6**	SM 5310C	764031		
50359162003	**MW-28I**	SM 5310C	764031		
50359162004	**MW-26B**	SM 5310C	764031		
50359162005	**MW-26I**	SM 5310C	764031		
50359162006	**MW-28A**	SM 5310C	764031		
50359162007	**MW-26A**	SM 5310C	764031		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO# : 50359162

50359162

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section B Required Project Information:		Section C Invoice Information:	
Company: Atlas Indianapolis	Report To: Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address: 7988 Centerpoint Drive Suite 100	Copy To:	Company Name:	Atlas Indianapolis
Indianapolis, IN 46256		Address:	
Email: mark.breting@oneatlas.com	Purchase Order #:	Pace Quote:	
Phone: (317)579-4082 Fax:	Project Name: Petersburg P4R3 Nov 2023	Pace Project Manager:	Will Statz
Requested Due Date:	Project #:	Pace Profile #:	10498/53

Regulatory Agency	State / Location
	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO2, NO3 Wet	(Br, Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity*, Ferrous Iron, pH	TOC by 5310C	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum			Residual Chlorine (Y/N)
	MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																	Requested Analysis Filtered (Y/N)				Y			Y						
1	MW-28B	WT	G	11/8	14:05	11/8	14:52		11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
2	DWP 6	WT	G	11/8					11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
3	MW-28I	WT	G	11/8	1545	11/8	1603		11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
4	MW-26B	WT	G	11/8	1330	11/8	1350		11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
5	MW-26 I	WT	G	11/8	1020	11/8	1050		11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
6	MW-28A	WT	G	11/8	1500	11/8	1530		11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
7	MW-26A	WT	G	11/8	11:00	11/8	12:00		11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
8																														
9																														
10																														
11																														
12																														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
* Metals: 6010 (B, Cd, Fe, Pb, Mo, Ca, Mg, Na, K, Li, sila) (11)	Carsen Clouser	11/8	1600	Jay Williams	11-9	8:00AM	
6020 (Al, Mn, Co, As, Se, Ba) (6)	Jay Williams	11-9	10:20AM		11/9/23	1020	Ice, Seal
** Dissolved FF 6010 (B, Fe, Mo, Mg, K, Li) (6) FF 6020 (Al, Mn) (2)							
Rad 226/2228 to Pace PA							

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Carsen Clouser					
SIGNATURE of SAMPLER:	Carsen Clouser	DATE Signed: 11/8/23				

F-IN-Q-290-rev.23, 26Jun2023

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: MR 11/9/23 1240

1. **Courier:** ☐FED EX ☐UPS ☑CLIENT ☐PACE ☐NOW/JETT ☐OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H

4. **Cooler Temperature(s):** (Initial/Corrected)

0.9/0.9	0.7/0.7	1.1/1.1	0.5/0.5

RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? **Analysis:** NO3	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 1330		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A ✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:		✓	

COMMENTS: 1.5/1.5 0.9/0.9 0.7/0.7 0.6/0.6 1.1/1.1 0.9/0.9

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1												1	1	1		2	1	2	1	1	1		1					WT	✓	✓		✓
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 07, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 09, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50359167001	**MW-4C**	Water	11/08/23 12:40	11/09/23 10:20
50359167002	**FIELD BLANK-1**	Water	11/08/23 12:40	11/09/23 10:20
50359167003	**MW-3**	Water	11/08/23 15:35	11/09/23 10:20
50359167004	**DUP-1**	Water	11/08/23 15:35	11/09/23 10:20
50359167005	**MW-2R**	Water	11/08/23 18:10	11/09/23 10:20

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50359167001	**MW-4C**	EPA 9056	ADM	1	PASI-I
		EPA 6010	MTM	5	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	DMT	2	PASI-I
		EPA 6020	DMT	2	PASI-I
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359167002	**FIELD BLANK-1**	EPA 9056	ADM	1	PASI-I
		EPA 6010	MTM	5	PASI-I
		EPA 6020	DMT	2	PASI-I
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359167003	**MW-3**	EPA 9056	ADM	1	PASI-I
		EPA 6010	MTM	5	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	DMT	2	PASI-I
		EPA 6020	DMT	2	PASI-I
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359167004	**DUP-1**	EPA 9056	ADM	1	PASI-I

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6010	MTM	5	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	DMT	2	PASI-I
		EPA 6020	DMT	2	PASI-I
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359167005	**MW-2R**	EPA 9056	ADM	1	PASI-I
		EPA 6010	MTM	5	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	DMT	2	PASI-I
		EPA 6020	DMT	2	PASI-I
		SM 2320B	DAW	3	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359167001	**MW-4C**					
EPA 9056	Bromide	0.50	mg/L	0.050	11/19/23 02:50	
EPA 6010	Magnesium	53100	ug/L	1000	11/17/23 17:35	
EPA 6010	Potassium	60200	ug/L	1000	11/17/23 17:35	
EPA 6010	Silica	20000	ug/L	450	11/17/23 17:35	N2
EPA 6010	Sodium	79300	ug/L	1000	11/17/23 17:35	
EPA 6010	Boron, Dissolved	4370	ug/L	100	11/18/23 02:49	
EPA 6010	Lithium, Dissolved	369	ug/L	20.0	11/18/23 02:49	
EPA 6010	Magnesium, Dissolved	53900	ug/L	1000	11/18/23 02:49	
EPA 6010	Potassium, Dissolved	63200	ug/L	1000	11/18/23 02:49	
EPA 6020	Manganese	2460	ug/L	25.0	11/16/23 10:49	
EPA 6020	Manganese, Dissolved	2490	ug/L	20.0	11/14/23 10:20	
SM 2320B	Alkalinity, Total as CaCO3	434	mg/L	10.0	11/14/23 03:46	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	434	mg/L	10.0	11/14/23 03:46	
SM 2540C	Total Dissolved Solids	2650	mg/L	20.0	11/15/23 09:45	
SM 5310C	Total Organic Carbon	2.6	mg/L	1.0	11/16/23 18:08	
SM 5310C	Dissolved Organic Carbon	4.4	mg/L	1.0	11/21/23 03:29	
50359167003	**MW-3**					
EPA 9056	Bromide	0.69	mg/L	0.050	11/19/23 05:36	
EPA 6010	Magnesium	15400	ug/L	1000	11/17/23 17:47	
EPA 6010	Potassium	206000	ug/L	3000	11/17/23 18:13	
EPA 6010	Silica	13300	ug/L	450	11/17/23 17:47	N2
EPA 6010	Sodium	85900	ug/L	1000	11/17/23 17:47	
EPA 6010	Boron, Dissolved	801	ug/L	100	11/18/23 03:00	
EPA 6010	Lithium, Dissolved	1740	ug/L	20.0	11/18/23 03:00	
EPA 6010	Magnesium, Dissolved	15800	ug/L	1000	11/18/23 03:00	
EPA 6010	Molybdenum, Dissolved	252	ug/L	10.0	11/18/23 03:00	
EPA 6010	Potassium, Dissolved	237000	ug/L	3000	11/18/23 03:05	
EPA 6020	Manganese	2080	ug/L	20.0	11/16/23 11:13	
EPA 6020	Manganese, Dissolved	2130	ug/L	20.0	11/14/23 10:44	
SM 2320B	Alkalinity, Total as CaCO3	135	mg/L	10.0	11/14/23 03:46	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	135	mg/L	10.0	11/14/23 03:46	
SM 2540C	Total Dissolved Solids	1910	mg/L	20.0	11/15/23 09:46	
EPA 365.1	Phosphate as P04	0.29	mg/L	0.15	11/20/23 14:40	
SM 5310C	Total Organic Carbon	1.1	mg/L	1.0	11/16/23 20:31	
SM 5310C	Dissolved Organic Carbon	1.8	mg/L	1.0	11/21/23 04:02	
50359167004	**DUP-1**					
EPA 9056	Bromide	0.70	mg/L	0.050	11/19/23 06:31	
EPA 6010	Magnesium	15700	ug/L	1000	11/17/23 17:48	
EPA 6010	Potassium	206000	ug/L	3000	11/17/23 18:15	
EPA 6010	Silica	13100	ug/L	450	11/17/23 17:48	N2
EPA 6010	Sodium	86400	ug/L	1000	11/17/23 17:48	
EPA 6010	Boron, Dissolved	794	ug/L	100	11/18/23 03:02	
EPA 6010	Lithium, Dissolved	1730	ug/L	20.0	11/18/23 03:02	
EPA 6010	Magnesium, Dissolved	15900	ug/L	1000	11/18/23 03:02	
EPA 6010	Molybdenum, Dissolved	249	ug/L	10.0	11/18/23 03:02	
EPA 6010	Potassium, Dissolved	235000	ug/L	3000	11/18/23 03:06	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359167004	**DUP-1**					
EPA 6020	Manganese	2050	ug/L	20.0	11/16/23 11:16	
EPA 6020	Manganese, Dissolved	2110	ug/L	20.0	11/14/23 10:48	
SM 2320B	Alkalinity, Total as CaCO3	140	mg/L	10.0	11/14/23 03:46	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	140	mg/L	10.0	11/14/23 03:46	
SM 2540C	Total Dissolved Solids	1900	mg/L	20.0	11/15/23 09:47	
EPA 365.1	Phosphate as P04	0.27	mg/L	0.15	11/20/23 14:41	
SM 5310C	Total Organic Carbon	1.1	mg/L	1.0	11/16/23 20:50	
SM 5310C	Dissolved Organic Carbon	1.7	mg/L	1.0	11/21/23 14:55	
50359167005	**MW-2R**					
EPA 9056	Bromide	0.70	mg/L	0.050	11/19/23 06:49	
EPA 6010	Iron	23200	ug/L	100	11/17/23 17:50	
EPA 6010	Magnesium	56100	ug/L	1000	11/17/23 17:50	
EPA 6010	Potassium	112000	ug/L	3000	11/17/23 18:17	
EPA 6010	Silica	33700	ug/L	450	11/17/23 17:50	N2
EPA 6010	Sodium	88500	ug/L	1000	11/17/23 17:50	
EPA 6010	Boron, Dissolved	1990	ug/L	100	11/18/23 03:03	
EPA 6010	Iron, Dissolved	9890	ug/L	100	11/18/23 03:03	
EPA 6010	Lithium, Dissolved	686	ug/L	20.0	11/18/23 03:03	
EPA 6010	Magnesium, Dissolved	60000	ug/L	1000	11/18/23 03:03	
EPA 6010	Potassium, Dissolved	99600	ug/L	1000	11/18/23 03:03	
EPA 6020	Aluminum	5980	ug/L	100	11/16/23 11:27	
EPA 6020	Manganese	5550	ug/L	50.0	11/16/23 11:20	
EPA 6020	Aluminum, Dissolved	23.3	ug/L	10.0	11/14/23 09:19	
EPA 6020	Manganese, Dissolved	5840	ug/L	50.0	11/14/23 10:51	
SM 2320B	Alkalinity, Total as CaCO3	170	mg/L	10.0	11/14/23 03:46	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	170	mg/L	10.0	11/14/23 03:46	
SM 2540C	Total Dissolved Solids	2440	mg/L	20.0	11/15/23 09:47	
EPA 365.1	Phosphate as P04	1.7	mg/L	0.75	11/20/23 14:42	
SM 5310C	Dissolved Organic Carbon	4.6	mg/L	1.0	11/21/23 15:06	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

Sample: MW-4C **Lab ID: 50359167001** Collected: 11/08/23 12:40 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.50**	mg/L	0.050	0.0090	1		11/19/23 02:50	24959-67-9	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Iron	ND	ug/L	100	18.1	1	11/15/23 16:07	11/17/23 17:35	7439-89-6	
Magnesium	**53100**	ug/L	1000	32.8	1	11/15/23 16:07	11/17/23 17:35	7439-95-4	
Potassium	**60200**	ug/L	1000	120	1	11/15/23 16:07	11/17/23 17:35	7440-09-7	
Silica	**20000**	ug/L	450		1	11/15/23 16:07	11/17/23 17:35	7631-86-9	N2
Sodium	**79300**	ug/L	1000	48.2	1	11/15/23 16:07	11/17/23 17:35	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**4370**	ug/L	100	6.2	1	11/17/23 08:18	11/18/23 02:49	7440-42-8	
Iron, Dissolved	ND	ug/L	100	30.0	1	11/17/23 08:18	11/18/23 02:49	7439-89-6	
Lithium, Dissolved	**369**	ug/L	20.0	6.8	1	11/17/23 08:18	11/18/23 02:49	7439-93-2	
Magnesium, Dissolved	**53900**	ug/L	1000	33.6	1	11/17/23 08:18	11/18/23 02:49	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	11/17/23 08:18	11/18/23 02:49	7439-98-7	
Potassium, Dissolved	**63200**	ug/L	1000	97.8	1	11/17/23 08:18	11/18/23 02:49	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	4.4	1	11/15/23 16:18	11/16/23 08:41	7429-90-5	
Manganese	**2460**	ug/L	25.0	1.1	25	11/15/23 16:18	11/16/23 10:49	7439-96-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	11/13/23 07:41	11/14/23 06:56	7429-90-5	
Manganese, Dissolved	**2490**	ug/L	20.0	0.86	20	11/13/23 07:41	11/14/23 10:20	7439-96-5	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**434**	mg/L	10.0	10.0	1		11/14/23 03:46		
Alkalinity,Bicarbonate (CaCO3)	**434**	mg/L	10.0	10.0	1		11/14/23 03:46		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/14/23 03:46		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2650**	mg/L	20.0	20.0	1		11/15/23 09:45		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 10:49	18496-25-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

Sample: MW-4C **Lab ID: 50359167001** Collected: 11/08/23 12:40 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/10/23 16:54	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/10/23 01:12	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/10/23 01:12	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/18/23 14:30	11/20/23 14:38		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**2.6**	mg/L	1.0	0.24	1		11/16/23 18:08	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**4.4**	mg/L	1.0	0.24	1		11/21/23 03:29		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

Sample: FIELD BLANK-1 **Lab ID: 50359167002** Collected: 11/08/23 12:40 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	ND	mg/L	0.050	0.0090	1		11/19/23 01:55	24959-67-9	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Iron	ND	ug/L	100	18.1	1	11/15/23 16:07	11/17/23 17:45	7439-89-6	
Magnesium	ND	ug/L	1000	32.8	1	11/15/23 16:07	11/17/23 17:45	7439-95-4	
Potassium	ND	ug/L	1000	120	1	11/15/23 16:07	11/17/23 17:45	7440-09-7	
Silica	ND	ug/L	450		1	11/15/23 16:07	11/17/23 17:45	7631-86-9	N2
Sodium	ND	ug/L	1000	48.2	1	11/15/23 16:07	11/17/23 17:45	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	4.4	1	11/15/23 16:18	11/16/23 06:20	7429-90-5	
Manganese	ND	ug/L	1.0	0.043	1	11/15/23 16:18	11/16/23 06:20	7439-96-5	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	ND	mg/L	10.0	10.0	1		11/14/23 03:46		
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/14/23 03:46		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/14/23 03:46		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		11/15/23 09:46		PL
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 10:49	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/10/23 16:56	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/10/23 01:22	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/10/23 01:22	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/18/23 14:30	11/20/23 14:40		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

Sample: FIELD BLANK-1 **Lab ID: 50359167002** Collected: 11/08/23 12:40 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.24	1		11/16/23 19:51	7440-44-0	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

Sample: MW-3 **Lab ID: 50359167003** Collected: 11/08/23 15:35 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.69**	mg/L	0.050	0.0090	1		11/19/23 05:36	24959-67-9	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Iron	ND	ug/L	100	18.1	1	11/15/23 16:07	11/17/23 17:47	7439-89-6	
Magnesium	**15400**	ug/L	1000	32.8	1	11/15/23 16:07	11/17/23 17:47	7439-95-4	
Potassium	**206000**	ug/L	3000	360	3	11/15/23 16:07	11/17/23 18:13	7440-09-7	
Silica	**13300**	ug/L	450		1	11/15/23 16:07	11/17/23 17:47	7631-86-9	N2
Sodium	**85900**	ug/L	1000	48.2	1	11/15/23 16:07	11/17/23 17:47	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**801**	ug/L	100	6.2	1	11/17/23 08:18	11/18/23 03:00	7440-42-8	
Iron, Dissolved	ND	ug/L	100	30.0	1	11/17/23 08:18	11/18/23 03:00	7439-89-6	
Lithium, Dissolved	**1740**	ug/L	20.0	6.8	1	11/17/23 08:18	11/18/23 03:00	7439-93-2	
Magnesium, Dissolved	**15800**	ug/L	1000	33.6	1	11/17/23 08:18	11/18/23 03:00	7439-95-4	
Molybdenum, Dissolved	**252**	ug/L	10.0	0.78	1	11/17/23 08:18	11/18/23 03:00	7439-98-7	
Potassium, Dissolved	**237000**	ug/L	3000	293	3	11/17/23 08:18	11/18/23 03:05	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	4.4	1	11/15/23 16:18	11/16/23 06:42	7429-90-5	
Manganese	**2080**	ug/L	20.0	0.86	20	11/15/23 16:18	11/16/23 11:13	7439-96-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	11/13/23 07:41	11/14/23 09:12	7429-90-5	
Manganese, Dissolved	**2130**	ug/L	20.0	0.86	20	11/13/23 07:41	11/14/23 10:44	7439-96-5	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**135**	mg/L	10.0	10.0	1		11/14/23 03:46		
Alkalinity,Bicarbonate (CaCO3)	**135**	mg/L	10.0	10.0	1		11/14/23 03:46		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/14/23 03:46		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1910**	mg/L	20.0	20.0	1		11/15/23 09:46		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 10:49	18496-25-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

Sample: MW-3 **Lab ID: 50359167003** Collected: 11/08/23 15:35 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/10/23 17:25	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/10/23 01:29	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/10/23 01:29	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.29**	mg/L	0.15	0.15	1	11/18/23 14:30	11/20/23 14:40		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.1**	mg/L	1.0	0.24	1		11/16/23 20:31	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.8**	mg/L	1.0	0.24	1		11/21/23 04:02		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

Sample: DUP-1 **Lab ID: 50359167004** Collected: 11/08/23 15:35 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056								
	Pace Analytical Services - Indianapolis								
Bromide	**0.70**	mg/L	0.050	0.0090	1		11/19/23 06:31	24959-67-9	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Iron	ND	ug/L	100	18.1	1	11/15/23 16:07	11/17/23 17:48	7439-89-6	
Magnesium	**15700**	ug/L	1000	32.8	1	11/15/23 16:07	11/17/23 17:48	7439-95-4	
Potassium	**206000**	ug/L	3000	360	3	11/15/23 16:07	11/17/23 18:15	7440-09-7	
Silica	**13100**	ug/L	450		1	11/15/23 16:07	11/17/23 17:48	7631-86-9	N2
Sodium	**86400**	ug/L	1000	48.2	1	11/15/23 16:07	11/17/23 17:48	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Boron, Dissolved	**794**	ug/L	100	6.2	1	11/17/23 08:18	11/18/23 03:02	7440-42-8	
Iron, Dissolved	ND	ug/L	100	30.0	1	11/17/23 08:18	11/18/23 03:02	7439-89-6	
Lithium, Dissolved	**1730**	ug/L	20.0	6.8	1	11/17/23 08:18	11/18/23 03:02	7439-93-2	
Magnesium, Dissolved	**15900**	ug/L	1000	33.6	1	11/17/23 08:18	11/18/23 03:02	7439-95-4	
Molybdenum, Dissolved	**249**	ug/L	10.0	0.78	1	11/17/23 08:18	11/18/23 03:02	7439-98-7	
Potassium, Dissolved	**235000**	ug/L	3000	293	3	11/17/23 08:18	11/18/23 03:06	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	4.4	1	11/15/23 16:18	11/16/23 06:45	7429-90-5	
Manganese	**2050**	ug/L	20.0	0.86	20	11/15/23 16:18	11/16/23 11:16	7439-96-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	11/13/23 07:41	11/14/23 09:15	7429-90-5	
Manganese, Dissolved	**2110**	ug/L	20.0	0.86	20	11/13/23 07:41	11/14/23 10:48	7439-96-5	
2320B Alkalinity	Analytical Method: SM 2320B								
	Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**140**	mg/L	10.0	10.0	1		11/14/23 03:46		
Alkalinity,Bicarbonate (CaCO3)	**140**	mg/L	10.0	10.0	1		11/14/23 03:46		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/14/23 03:46		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
	Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1900**	mg/L	20.0	20.0	1		11/15/23 09:47		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D								
	Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 10:49	18496-25-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

Sample: DUP-1 **Lab ID: 50359167004** Collected: 11/08/23 15:35 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/10/23 17:25	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/10/23 01:31	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/10/23 01:31	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.27**	mg/L	0.15	0.15	1	11/18/23 14:30	11/20/23 14:41		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.1**	mg/L	1.0	0.24	1		11/16/23 20:50	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.7**	mg/L	1.0	0.24	1		11/21/23 14:55		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

Sample: MW-2R **Lab ID: 50359167005** Collected: 11/08/23 18:10 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056								
	Pace Analytical Services - Indianapolis								
Bromide	**0.70**	mg/L	0.050	0.0090	1		11/19/23 06:49	24959-67-9	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Iron	**23200**	ug/L	100	18.1	1	11/15/23 16:07	11/17/23 17:50	7439-89-6	
Magnesium	**56100**	ug/L	1000	32.8	1	11/15/23 16:07	11/17/23 17:50	7439-95-4	
Potassium	**112000**	ug/L	3000	360	3	11/15/23 16:07	11/17/23 18:17	7440-09-7	
Silica	**33700**	ug/L	450		1	11/15/23 16:07	11/17/23 17:50	7631-86-9	N2
Sodium	**88500**	ug/L	1000	48.2	1	11/15/23 16:07	11/17/23 17:50	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1990**	ug/L	100	6.2	1	11/17/23 08:18	11/18/23 03:03	7440-42-8	
Iron, Dissolved	**9890**	ug/L	100	30.0	1	11/17/23 08:18	11/18/23 03:03	7439-89-6	
Lithium, Dissolved	**686**	ug/L	20.0	6.8	1	11/17/23 08:18	11/18/23 03:03	7439-93-2	
Magnesium, Dissolved	**60000**	ug/L	1000	33.6	1	11/17/23 08:18	11/18/23 03:03	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	11/17/23 08:18	11/18/23 03:03	7439-98-7	
Potassium, Dissolved	**99600**	ug/L	1000	97.8	1	11/17/23 08:18	11/18/23 03:03	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Aluminum	**5980**	ug/L	100	44.1	10	11/15/23 16:18	11/16/23 11:27	7429-90-5	
Manganese	**5550**	ug/L	50.0	2.2	50	11/15/23 16:18	11/16/23 11:20	7439-96-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	**23.3**	ug/L	10.0	4.4	1	11/13/23 07:41	11/14/23 09:19	7429-90-5	
Manganese, Dissolved	**5840**	ug/L	50.0	2.2	50	11/13/23 07:41	11/14/23 10:51	7439-96-5	
2320B Alkalinity	Analytical Method: SM 2320B								
	Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**170**	mg/L	10.0	10.0	1		11/14/23 03:46		
Alkalinity,Bicarbonate (CaCO3)	**170**	mg/L	10.0	10.0	1		11/14/23 03:46		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/14/23 03:46		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
	Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2440**	mg/L	20.0	20.0	1		11/15/23 09:47		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D								
	Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 10:49	18496-25-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

Sample: MW-2R **Lab ID: 50359167005** Collected: 11/08/23 18:10 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/10/23 17:25	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/10/23 01:35	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/10/23 01:35	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**1.7**	mg/L	0.75	0.75	1	11/18/23 14:30	11/20/23 14:42		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	4.0	0.94	4		11/16/23 21:09	7440-44-0	D3
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**4.6**	mg/L	1.0	0.24	1		11/21/23 15:06		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

QC Batch: 762643 | Analysis Method: EPA 9056
QC Batch Method: EPA 9056 | Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359167001, 50359167002, 50359167003, 50359167004, 50359167005

METHOD BLANK: 3495683 Matrix: Water
Associated Lab Samples: 50359167001, 50359167002, 50359167003, 50359167004, 50359167005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	11/19/23 14:29	

LABORATORY CONTROL SAMPLE: 3495684

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.95	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495685 3495686

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	0.50	1	1	1.5	1.4	95	94	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

QC Batch: 762698
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359167001, 50359167002, 50359167003, 50359167004, 50359167005

METHOD BLANK: 3495904 Matrix: Water
Associated Lab Samples: 50359167001, 50359167002, 50359167003, 50359167004, 50359167005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron	ug/L	ND	100	18.1	11/17/23 17:16	
Magnesium	ug/L	ND	1000	32.8	11/17/23 17:16	
Potassium	ug/L	ND	1000	120	11/17/23 17:16	
Silica	ug/L	ND	450		11/17/23 17:16	N2
Sodium	ug/L	ND	1000	48.2	11/17/23 17:16	

LABORATORY CONTROL SAMPLE: 3495905

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	10000	9790	98	80-120	
Magnesium	ug/L	10000	9480	95	80-120	
Potassium	ug/L	10000	9470	95	80-120	
Silica	ug/L	10700	10100	94	80-120	N2
Sodium	ug/L	10000	9460	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495906 3495907

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	ug/L	ND	10000	10000	9500	9380	95	94	75-125	1	20	
Magnesium	ug/L	53100	10000	10000	61100	60400	80	73	75-125	1	20	P6
Potassium	ug/L	60200	10000	10000	68800	68600	86	84	75-125	0	20	
Silica	ug/L	20000	10700	10700	30500	30400	99	98	75-125	0	20	N2
Sodium	ug/L	79300	10000	10000	87000	86700	77	75	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

QC Batch: 763240
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359167001, 50359167003, 50359167004, 50359167005

METHOD BLANK: 3498338 Matrix: Water
Associated Lab Samples: 50359167001, 50359167003, 50359167004, 50359167005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	11/18/23 02:20	
Iron, Dissolved	ug/L	ND	100	30.0	11/18/23 02:20	
Lithium, Dissolved	ug/L	ND	20.0	6.8	11/18/23 02:20	
Magnesium, Dissolved	ug/L	ND	1000	33.6	11/18/23 02:20	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	11/18/23 02:20	
Potassium, Dissolved	ug/L	ND	1000	97.8	11/18/23 02:20	

LABORATORY CONTROL SAMPLE: 3498339

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	984	98	80-120	
Iron, Dissolved	ug/L	10000	9980	100	80-120	
Lithium, Dissolved	ug/L	1000	1020	102	80-120	
Magnesium, Dissolved	ug/L	10000	10000	100	80-120	
Molybdenum, Dissolved	ug/L	1000	1030	103	80-120	
Potassium, Dissolved	ug/L	10000	10000	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498340 3498341

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	4370	1000	1000	5290	5200	92	83	75-125	2	20	
Iron, Dissolved	ug/L	ND	10000	10000	9590	9520	96	95	75-125	1	20	
Lithium, Dissolved	ug/L	369	1000	1000	1390	1380	102	101	75-125	1	20	
Magnesium, Dissolved	ug/L	53900	10000	10000	62500	61300	86	74	75-125	2	20	P6
Molybdenum, Dissolved	ug/L	ND	1000	1000	1030	1020	102	101	75-125	1	20	
Potassium, Dissolved	ug/L	63200	10000	10000	72700	70700	95	75	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

QC Batch: 763013
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359167001, 50359167002, 50359167003, 50359167004, 50359167005

METHOD BLANK: 3497196 Matrix: Water
Associated Lab Samples: 50359167001, 50359167002, 50359167003, 50359167004, 50359167005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	4.4	11/16/23 13:10	
Manganese	ug/L	ND	1.0	0.043	11/16/23 13:10	

LABORATORY CONTROL SAMPLE: 3497197

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	423	106	80-120	
Manganese	ug/L	40	39.9	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3497198 3497199

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	ND	400	400	396	402	97	98	75-125	2	20	
Manganese	ug/L	2460	40	40	2500	2480	93	37	75-125	1	20	P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

QC Batch: 762361
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359167001, 50359167003, 50359167004, 50359167005

METHOD BLANK: 3494883 Matrix: Water
Associated Lab Samples: 50359167001, 50359167003, 50359167004, 50359167005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	4.4	11/14/23 06:03	
Manganese, Dissolved	ug/L	ND	1.0	0.043	11/14/23 06:03	

LABORATORY CONTROL SAMPLE: 3494884

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	401	100	80-120	
Manganese, Dissolved	ug/L	40	41.1	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3494885 3494886

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	426	429	106	107	75-125	1	20	
Manganese, Dissolved	ug/L	2490	40	40	2490	2530	-6	105	75-125	2	20	P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

QC Batch: 762686 | Analysis Method: SM 2320B
QC Batch Method: SM 2320B | Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359167001, 50359167002, 50359167003, 50359167004, 50359167005

METHOD BLANK: 3495863 Matrix: Water
Associated Lab Samples: 50359167001, 50359167002, 50359167003, 50359167004, 50359167005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/14/23 03:46	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/14/23 03:46	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/14/23 03:46	

LABORATORY CONTROL SAMPLE: 3495864

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.8	98	90-110	

SAMPLE DUPLICATE: 3495865

Parameter	Units	50359167001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	434	445	3	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	434	445	3	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3495866

Parameter	Units	50359185001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	497	510	3	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	474	487	3	20	
Alkalinity,Carbonate (CaCO3)	mg/L	23.2	23.2	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

QC Batch: 762769 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359167001, 50359167002, 50359167003, 50359167004, 50359167005

METHOD BLANK: 3496163 Matrix: Water
Associated Lab Samples: 50359167001, 50359167002, 50359167003, 50359167004, 50359167005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/15/23 09:37	

LABORATORY CONTROL SAMPLE: 3496164

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	270	90	80-120	

SAMPLE DUPLICATE: 3496165

Parameter	Units	50359133001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	500	542	8	10	

SAMPLE DUPLICATE: 3496166

Parameter	Units	50359167001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2650	2670	1	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

QC Batch: 762749 | Analysis Method: SM 4500-S2-D
QC Batch Method: SM 4500-S2-D | Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359167001, 50359167002, 50359167003, 50359167004, 50359167005

METHOD BLANK: 3496081 Matrix: Water
Associated Lab Samples: 50359167001, 50359167002, 50359167003, 50359167004, 50359167005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/14/23 10:49	

LABORATORY CONTROL SAMPLE: 3496082

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.51	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3496083 3496084

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.54	0.52	107	103	90-110	4	20	

MATRIX SPIKE SAMPLE: 3496085

Parameter	Units	50359185001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	5	5.8	115	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

QC Batch: 762234
QC Batch Method: HACH 8146
Analysis Method: HACH 8146
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359167001, 50359167002

METHOD BLANK: 3493977 Matrix: Water
Associated Lab Samples: 50359167001, 50359167002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/10/23 16:35	H3,N2

LABORATORY CONTROL SAMPLE: 3493978

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	0.98	98	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3493979 3493980

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.0	107	102	90-110	5	20	H3,N2

MATRIX SPIKE SAMPLE: 3493981

Parameter	Units	50359162004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.0	105	90-110	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

QC Batch: 762238
QC Batch Method: HACH 8146
Analysis Method: HACH 8146
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359167003, 50359167004, 50359167005

METHOD BLANK: 3493993 Matrix: Water
Associated Lab Samples: 50359167003, 50359167004, 50359167005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/10/23 17:23	H3,N2

LABORATORY CONTROL SAMPLE: 3493994

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	103	90-110	H3,N2

MATRIX SPIKE SAMPLE: 3493995

Parameter	Units	50359251004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.0	101	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3493996 3493997

Parameter	Units	50359369004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.0	107	105	90-110	2	20	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

QC Batch: 762010
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359167001, 50359167002, 50359167003, 50359167004, 50359167005

METHOD BLANK: 3492953 Matrix: Water
Associated Lab Samples: 50359167001, 50359167002, 50359167003, 50359167004, 50359167005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/10/23 00:58	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/10/23 00:58	

LABORATORY CONTROL SAMPLE: 3492954

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	103	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3492955 3492956

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.1	1.1	102	101	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.0	1.0	103	104	90-110	0	20	

MATRIX SPIKE SAMPLE: 3492981

Parameter	Units	50359160001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	2.7	1	3.5	86	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	103	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

QC Batch: 763770 Analysis Method: EPA 365.1
QC Batch Method: EPA 365.1 Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359167001, 50359167002, 50359167003, 50359167004, 50359167005

METHOD BLANK: 3501198 Matrix: Water
Associated Lab Samples: 50359167001, 50359167002, 50359167003, 50359167004, 50359167005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	11/20/23 14:32	

LABORATORY CONTROL SAMPLE: 3501199

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3501200 3501201

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.6	1.6				1		

MATRIX SPIKE SAMPLE: 3501202

Parameter	Units	50359846001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	1.5		3.0			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

QC Batch: 763086 Analysis Method: SM 5310C
QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359167001, 50359167002, 50359167003, 50359167004, 50359167005

METHOD BLANK: 3497484 Matrix: Water
Associated Lab Samples: 50359167001, 50359167002, 50359167003, 50359167004, 50359167005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	11/16/23 15:08	

LABORATORY CONTROL SAMPLE: 3497485

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.6	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3497486 3497487

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	2.6	10	10	12.4	12.4	98	98	80-120	0	20	

MATRIX SPIKE SAMPLE: 3497488

Parameter	Units	50359167002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	ND	10	9.8	96	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

QC Batch: 764031
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359167001, 50359167003

METHOD BLANK: 3502328 Matrix: Water
Associated Lab Samples: 50359167001, 50359167003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	11/20/23 23:01	

LABORATORY CONTROL SAMPLE: 3502329

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3502330 3502331

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	4.4	10	10	13.5	13.4	91	90	80-120	1	20	

MATRIX SPIKE SAMPLE: 3502332

Parameter	Units	50359167003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	1.8	10	11.5	97	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

QC Batch: 764233
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359167004, 50359167005

METHOD BLANK: 3502995 Matrix: Water
Associated Lab Samples: 50359167004, 50359167005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	11/21/23 14:35	

LABORATORY CONTROL SAMPLE: 3502996

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.6	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3502997 3502998

Parameter	Units	50359253005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.3	10	10	11.9	12.0	95	97	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503002 3503003

Parameter	Units	50359369004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.8	10	10	10.8	11.2	90	93	80-120	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
PL	The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359167001	**MW-4C**	EPA 9056	762643		
50359167002	**FIELD BLANK-1**	EPA 9056	762643		
50359167003	**MW-3**	EPA 9056	762643		
50359167004	**DUP-1**	EPA 9056	762643		
50359167005	**MW-2R**	EPA 9056	762643		
50359167001	**MW-4C**	EPA 3010	762698	EPA 6010	763695
50359167002	**FIELD BLANK-1**	EPA 3010	762698	EPA 6010	763695
50359167003	**MW-3**	EPA 3010	762698	EPA 6010	763695
50359167004	**DUP-1**	EPA 3010	762698	EPA 6010	763695
50359167005	**MW-2R**	EPA 3010	762698	EPA 6010	763695
50359167001	**MW-4C**	EPA 3010	763240	EPA 6010	763747
50359167003	**MW-3**	EPA 3010	763240	EPA 6010	763747
50359167004	**DUP-1**	EPA 3010	763240	EPA 6010	763747
50359167005	**MW-2R**	EPA 3010	763240	EPA 6010	763747
50359167001	**MW-4C**	EPA 200.2	763013	EPA 6020	763255
50359167002	**FIELD BLANK-1**	EPA 200.2	763013	EPA 6020	763255
50359167003	**MW-3**	EPA 200.2	763013	EPA 6020	763255
50359167004	**DUP-1**	EPA 200.2	763013	EPA 6020	763255
50359167005	**MW-2R**	EPA 200.2	763013	EPA 6020	763255
50359167001	**MW-4C**	EPA 200.2	762361	EPA 6020	762612
50359167003	**MW-3**	EPA 200.2	762361	EPA 6020	762612
50359167004	**DUP-1**	EPA 200.2	762361	EPA 6020	762612
50359167005	**MW-2R**	EPA 200.2	762361	EPA 6020	762612
50359167001	**MW-4C**	SM 2320B	762686		
50359167002	**FIELD BLANK-1**	SM 2320B	762686		
50359167003	**MW-3**	SM 2320B	762686		
50359167004	**DUP-1**	SM 2320B	762686		
50359167005	**MW-2R**	SM 2320B	762686		
50359167001	**MW-4C**	SM 2540C	762769		
50359167002	**FIELD BLANK-1**	SM 2540C	762769		
50359167003	**MW-3**	SM 2540C	762769		
50359167004	**DUP-1**	SM 2540C	762769		
50359167005	**MW-2R**	SM 2540C	762769		
50359167001	**MW-4C**	SM 4500-S2-D	762749		
50359167002	**FIELD BLANK-1**	SM 4500-S2-D	762749		
50359167003	**MW-3**	SM 4500-S2-D	762749		
50359167004	**DUP-1**	SM 4500-S2-D	762749		
50359167005	**MW-2R**	SM 4500-S2-D	762749		
50359167001	**MW-4C**	HACH 8146	762234		
50359167002	**FIELD BLANK-1**	HACH 8146	762234		
50359167003	**MW-3**	HACH 8146	762238		
50359167004	**DUP-1**	HACH 8146	762238		
50359167005	**MW-2R**	HACH 8146	762238		
50359167001	**MW-4C**	EPA 353.2	762010		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PETERSBURG P3R1 NOV 2023
Pace Project No.: 50359167

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359167002	**FIELD BLANK-1**	EPA 353.2	762010		
50359167003	**MW-3**	EPA 353.2	762010		
50359167004	**DUP-1**	EPA 353.2	762010		
50359167005	**MW-2R**	EPA 353.2	762010		
50359167001	**MW-4C**	EPA 365.1	763770	EPA 365.1	764046
50359167002	**FIELD BLANK-1**	EPA 365.1	763770	EPA 365.1	764046
50359167003	**MW-3**	EPA 365.1	763770	EPA 365.1	764046
50359167004	**DUP-1**	EPA 365.1	763770	EPA 365.1	764046
50359167005	**MW-2R**	EPA 365.1	763770	EPA 365.1	764046
50359167001	**MW-4C**	SM 5310C	763086		
50359167002	**FIELD BLANK-1**	SM 5310C	763086		
50359167003	**MW-3**	SM 5310C	763086		
50359167004	**DUP-1**	SM 5310C	763086		
50359167005	**MW-2R**	SM 5310C	763086		
50359167001	**MW-4C**	SM 5310C	764031		
50359167003	**MW-3**	SM 5310C	764031		
50359167004	**DUP-1**	SM 5310C	764233		
50359167005	**MW-2R**	SM 5310C	764233		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO# : 50359167

50359167

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section C Project Information:		Invoice Information:	
Company: Atlas Indianapolis	Report To: Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address: 7988 Centerpoint Drive Suite 100	Copy To:	Company Name:	Atlas Indianapolis
Indianapolis, IN 46256		Address:	
Email: mark.breting@oneatlas.com	Purchase Order #:	Pace Quote:	
Phone: (317)579-4082 Fax:	Project Name: Petersburg P3R1 Nov 2023	Pace Project Manager:	Will Statz
Requested Due Date:	Project #:	Pace Profile #:	10498/52

Regulatory Agency

State / Location: IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO2, NO3 Wet	(Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity*, Ferrous Iron, pH	TOC by 5310C	DOC by 5310C	Sulfide	Phosphate	Residual Chlorine (Y/N)
	Requested Analysis Filtered (Y/N)																					Y			Y			
1	MW-4C			11-8-23	1125	11/8/23	1240		9	X	X	X		X					X	X	X	X	X	X	X	X	X	
2	MS-1			11-8-23	1125	11/8/23	1240		9	X	X	X		X					X	X	X	X	X	X	X	X	X	
3	MSD-1			11-8-23	1125	11/8/23	1240		9	X	X	X		X					X	X	X	X	X	X	X	X	X	
4	Field Blank-1			11-8-23	1125	11/8/23	1240		7	X	X	X		X					X	X	X		X	X		X	X	
5	MW-3			11-8-23	1500	11/8/23	1535		9	X	X	X		X					X	X	X	X	X	X	X	X	X	
6	DUP-1			11/8/23	1500	11/8/23	1535		9	X	X	X		X					X	X	X	X	X	X	X	X	X	
7	MW-2R			11/8/23	1740	11/8/23	1810		9	X	X	X		X					X	X	X	X	X	X	X	X	X	
8																												
9																												
10																												
11																												
12																												

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
* Metals: 6010 Fe, Mg, Na, K, sila 6020 - Al, Mn	Josh O'Brian	11-9-23	800	Jay Wellborn	11-9	800	
** Dissolved FF 6010 (B, Fe, Mo, Li, Mg, K)	Jay Wellborn	11-9	1020	Josh O'Brian	11/9/23	820	
Diss 6020 - Al, Mn							
Alkalinity = (Total , Bicarb & Carb)							

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Josh O'Brian					
SIGNATURE of SAMPLER:		DATE Signed: 11-8-23				

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: MR 11/9/23 1240

1. **Courier:** ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H

4. **Cooler Temperature(s):** 0.9/0.9 | 0.7/0.7 | 1.1/1.1 | 0.5/0.5
(Initial/Corrected) **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**

5. **Packing Material:** ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** ~~HNO3 (<2)~~ ~~H2SO4 (<2)~~ **NaOH (>10)** **NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? **Analysis:** NO3	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 1330			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:		✓	

COMMENTS: 1.5/1.5 0.9/0.9 0.7/0.7 0.6/0.6 1.1/1.1 0.9/0.9

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1												3	3				3	6	3	3	3		3				WT	✓	✓		✓
2																															
3																															
4												1					1	2	1		1		1				WT	✓	✓		✓
5												1	1				1	2	1	1	1		1				WT	✓	✓		✓
6												1	1				1	2	1	1	1		1				WT	✓	✓		✓
7												1	1				1	2	1	1	1		1				WT	✓	✓		✓
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

December 29, 2023

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: PETERSBURG NOV 2023 P1R1
Pace Project No.: 50359169

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 09, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: PETERSBURG NOV 2023 P1R1
Pace Project No.: 50359169

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: PETERSBURG NOV 2023 P1R1
Pace Project No.: 50359169

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50359169001	**MW-4C**	Water	11/08/23 12:40	11/09/23 10:20
50359169002	**FIELD BLANK-1**	Water	11/08/23 12:40	11/09/23 10:20
50359169003	**MW-3**	Water	11/08/23 15:35	11/09/23 10:20
50359169004	**DUP-1**	Water	11/08/23 15:35	11/09/23 10:20
50359169005	**MW-2R**	Water	11/08/23 18:10	11/09/23 10:20

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: PETERSBURG NOV 2023 P1R1
Pace Project No.: 50359169

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50359169001	**MW-4C**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	9	PASI-I
		EPA 6020	DMT	9	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C	AEL	1	PASI-I
50359169002	**FIELD BLANK-1**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	9	PASI-I
		EPA 6020	DMT	9	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C	IRH	1	PASI-I
50359169003	**MW-3**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	9	PASI-I
		EPA 6020	DMT, MGM	9	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C	IRH	1	PASI-I
50359169004	**DUP-1**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	9	PASI-I
		EPA 6020	DMT, MGM	9	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C	IRH	1	PASI-I
50359169005	**MW-2R**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	9	PASI-I
		EPA 6020	DMT, MGM	9	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: PETERSBURG NOV 2023 P1R1
Pace Project No.: 50359169

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C	IRH	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: PETERSBURG NOV 2023 P1R1
Pace Project No.: 50359169

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359169001	**MW-4C**					
EPA 9056	Chloride	40.7	mg/L	2.5	11/19/23 07:26	
EPA 9056	Fluoride	0.18	mg/L	0.10	11/19/23 07:08	
EPA 9056	Sulfate	1430	mg/L	25.0	11/19/23 07:44	
EPA 6010	Boron	3890	ug/L	100	11/17/23 17:52	
EPA 6010	Calcium	586000	ug/L	5000	11/17/23 18:18	
EPA 6010	Lithium	331	ug/L	20.0	11/17/23 17:52	
EPA 6010	Manganese	2190	ug/L	10.0	11/17/23 17:52	
EPA 6020	Barium	29.8	ug/L	1.0	11/16/23 12:52	
EPA 6020	Cobalt	1.0	ug/L	1.0	11/16/23 12:52	
EPA 6020	Copper	2.4	ug/L	1.0	11/16/23 12:52	
EPA 903.1	Radium-226	-0.320 ± 0.519 (1.16) C:NA T:92%	pCi/L		11/28/23 11:55	
EPA 904.0	Radium-228	0.373 ± 0.353 (0.720) C:82% T:82%	pCi/L		11/28/23 14:46	
Total Radium Calculation	Total Radium	0.373 ± 0.872 (1.88)	pCi/L		11/29/23 10:33	
SM 2540C	Total Dissolved Solids	2630	mg/L	20.0	11/15/23 09:47	
50359169002	**FIELD BLANK-1**					
EPA 903.1	Radium-226	-0.0655 ± 0.498 (1.04) C:NA T:91%	pCi/L		11/28/23 11:55	
EPA 904.0	Radium-228	0.0601 ± 0.298 (0.682) C:83% T:88%	pCi/L		11/28/23 14:47	
Total Radium Calculation	Total Radium	0.0601 ± 0.796 (1.72)	pCi/L		11/29/23 10:33	
50359169003	**MW-3**					
EPA 9056	Chloride	69.4	mg/L	2.5	11/19/23 10:30	
EPA 9056	Sulfate	1010	mg/L	25.0	11/19/23 10:48	
EPA 6010	Boron	756	ug/L	100	11/17/23 17:55	
EPA 6010	Calcium	286000	ug/L	2000	11/17/23 18:23	
EPA 6010	Lithium	1590	ug/L	20.0	11/17/23 17:55	
EPA 6010	Manganese	1950	ug/L	10.0	11/17/23 17:55	
EPA 6010	Molybdenum	245	ug/L	10.0	11/17/23 17:55	
EPA 6020	Arsenic	63.1	ug/L	1.0	11/16/23 12:59	
EPA 6020	Barium	61.7	ug/L	1.0	11/16/23 12:59	
EPA 6020	Cobalt	2.1	ug/L	1.0	11/16/23 12:59	
EPA 6020	Copper	1.2	ug/L	1.0	11/16/23 12:59	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: PETERSBURG NOV 2023 P1R1
Pace Project No.: 50359169

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359169003	**MW-3**					
EPA 903.1	Radium-226	1.96 ± 0.754 (0.568) C:NA T:91%	pCi/L		11/28/23 11:55	
EPA 904.0	Radium-228	0.457 ± 0.354 (0.699) C:85% T:86%	pCi/L		11/28/23 14:47	
Total Radium Calculation	Total Radium	2.42 ± 1.11 (1.27)	pCi/L		11/29/23 10:33	
SM 2540C	Total Dissolved Solids	1860	mg/L	20.0	11/15/23 10:02	
50359169004	**DUP-1**					
EPA 9056	Chloride	69.5	mg/L	2.5	11/19/23 11:25	
EPA 9056	Sulfate	1040	mg/L	25.0	11/19/23 11:43	
EPA 6010	Boron	745	ug/L	100	11/17/23 17:56	
EPA 6010	Calcium	285000	ug/L	2000	11/17/23 18:24	
EPA 6010	Lithium	1580	ug/L	20.0	11/17/23 17:56	
EPA 6010	Manganese	1980	ug/L	10.0	11/17/23 17:56	
EPA 6010	Molybdenum	247	ug/L	10.0	11/17/23 17:56	
EPA 6020	Arsenic	61.9	ug/L	1.0	11/16/23 13:03	
EPA 6020	Barium	62.8	ug/L	1.0	11/16/23 13:03	
EPA 6020	Cobalt	2.2	ug/L	1.0	11/16/23 13:03	
EPA 6020	Copper	1.4	ug/L	1.0	11/16/23 13:03	
EPA 903.1	Radium-226	1.16 ± 0.709 (0.896) C:NA T:86%	pCi/L		11/28/23 12:07	
EPA 904.0	Radium-228	0.670 ± 0.377 (0.678) C:84% T:84%	pCi/L		11/28/23 14:47	
Total Radium Calculation	Total Radium	1.83 ± 1.09 (1.57)	pCi/L		11/29/23 10:33	
SM 2540C	Total Dissolved Solids	1820	mg/L	20.0	11/15/23 10:02	
50359169005	**MW-2R**					
EPA 9056	Chloride	63.4	mg/L	2.5	11/19/23 12:20	
EPA 9056	Sulfate	1390	mg/L	25.0	11/19/23 12:38	
EPA 6010	Boron	1970	ug/L	100	11/17/23 17:58	
EPA 6010	Calcium	463000	ug/L	5000	11/17/23 18:26	
EPA 6010	Iron	13000	ug/L	100	11/17/23 17:58	
EPA 6010	Lithium	718	ug/L	20.0	11/17/23 17:58	
EPA 6010	Manganese	5480	ug/L	10.0	11/17/23 17:58	
EPA 6010	Molybdenum	10.9	ug/L	10.0	11/17/23 17:58	
EPA 6020	Arsenic	11.8	ug/L	1.0	11/16/23 13:06	
EPA 6020	Barium	51.8	ug/L	1.0	11/16/23 13:06	
EPA 6020	Cobalt	2.3	ug/L	1.0	11/16/23 13:06	
EPA 6020	Copper	2.1	ug/L	1.0	11/16/23 13:06	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: PETERSBURG NOV 2023 P1R1
Pace Project No.: 50359169

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359169005	**MW-2R**					
EPA 6020	Zinc	3.9	ug/L	3.0	11/16/23 13:06	
EPA 903.1	Radium-226	0.334 ± 0.436 (0.720) C:NA T:91%	pCi/L		11/28/23 12:07	
EPA 904.0	Radium-228	0.694 ± 0.374 (0.656) C:81% T:84%	pCi/L		11/28/23 14:47	
Total Radium Calculation	Total Radium	1.03 ± 0.810 (1.38)	pCi/L		11/29/23 10:33	
SM 2540C	Total Dissolved Solids	2450	mg/L	20.0	11/15/23 10:03	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG NOV 2023 P1R1
Pace Project No.: 50359169

Sample: MW-4C **Lab ID: 50359169001** Collected: 11/08/23 12:40 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**40.7**	mg/L	2.5	0.67	10		11/19/23 07:26	16887-00-6	
Fluoride	**0.18**	mg/L	0.10	0.017	1		11/19/23 07:08	16984-48-8	
Sulfate	**1430**	mg/L	25.0	19.0	100		11/19/23 07:44	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**3890**	ug/L	100	11.4	1	11/15/23 16:07	11/17/23 17:52	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/15/23 16:07	11/17/23 17:52	7440-43-9	
Calcium	**586000**	ug/L	5000	284	5	11/15/23 16:07	11/17/23 18:18	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	11/15/23 16:07	11/17/23 17:52	7440-47-3	
Iron	ND	ug/L	100	18.1	1	11/15/23 16:07	11/17/23 17:52	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/15/23 16:07	11/17/23 17:52	7439-92-1	
Lithium	**331**	ug/L	20.0	5.1	1	11/15/23 16:07	11/17/23 17:52	7439-93-2	
Manganese	**2190**	ug/L	10.0	1.1	1	11/15/23 16:07	11/17/23 17:52	7439-96-5	
Molybdenum	ND	ug/L	10.0	1.1	1	11/15/23 16:07	11/17/23 17:52	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.044	1	11/15/23 16:18	11/16/23 12:52	7440-36-0	
Arsenic	ND	ug/L	1.0	0.064	1	11/15/23 16:18	11/16/23 12:52	7440-38-2	
Barium	**29.8**	ug/L	1.0	0.067	1	11/15/23 16:18	11/16/23 12:52	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	11/15/23 16:18	11/20/23 06:15	7440-41-7	
Cobalt	**1.0**	ug/L	1.0	0.024	1	11/15/23 16:18	11/16/23 12:52	7440-48-4	
Copper	**2.4**	ug/L	1.0	0.16	1	11/15/23 16:18	11/16/23 12:52	7440-50-8	
Selenium	ND	ug/L	1.0	0.23	1	11/15/23 16:18	11/16/23 12:52	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	11/15/23 16:18	11/16/23 12:52	7440-28-0	
Zinc	ND	ug/L	3.0	1.2	1	11/15/23 16:18	11/16/23 12:52	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	11/16/23 19:37	11/17/23 09:10	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2630**	mg/L	20.0	20.0	1		11/15/23 09:47		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG NOV 2023 P1R1
Pace Project No.: 50359169

Sample: FIELD BLANK-1 **Lab ID: 50359169002** Collected: 11/08/23 12:40 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	ND	mg/L	0.25	0.067	1		11/19/23 08:03	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/19/23 08:03	16984-48-8	
Sulfate	ND	mg/L	0.25	0.19	1		11/19/23 08:03	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	ND	ug/L	100	11.4	1	11/15/23 16:07	11/17/23 17:53	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/15/23 16:07	11/17/23 17:53	7440-43-9	
Calcium	ND	ug/L	1000	56.7	1	11/15/23 16:07	11/17/23 17:53	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	11/15/23 16:07	11/17/23 17:53	7440-47-3	
Iron	ND	ug/L	100	18.1	1	11/15/23 16:07	11/17/23 17:53	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/15/23 16:07	11/17/23 17:53	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/15/23 16:07	11/17/23 17:53	7439-93-2	
Manganese	ND	ug/L	10.0	1.1	1	11/15/23 16:07	11/17/23 17:53	7439-96-5	
Molybdenum	ND	ug/L	10.0	1.1	1	11/15/23 16:07	11/17/23 17:53	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.044	1	11/15/23 16:18	11/16/23 12:56	7440-36-0	
Arsenic	ND	ug/L	1.0	0.064	1	11/15/23 16:18	11/16/23 12:56	7440-38-2	
Barium	ND	ug/L	1.0	0.067	1	11/15/23 16:18	11/16/23 12:56	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	11/15/23 16:18	11/20/23 06:18	7440-41-7	
Cobalt	ND	ug/L	1.0	0.024	1	11/15/23 16:18	11/16/23 12:56	7440-48-4	
Copper	ND	ug/L	1.0	0.16	1	11/15/23 16:18	11/16/23 12:56	7440-50-8	
Selenium	ND	ug/L	1.0	0.23	1	11/15/23 16:18	11/16/23 12:56	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	11/15/23 16:18	11/16/23 12:56	7440-28-0	
Zinc	ND	ug/L	3.0	1.2	1	11/15/23 16:18	11/16/23 12:56	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	11/16/23 19:37	11/17/23 09:20	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		11/15/23 10:01		PL

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG NOV 2023 P1R1
Pace Project No.: 50359169

Sample: MW-3 **Lab ID: 50359169003** Collected: 11/08/23 15:35 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**69.4**	mg/L	2.5	0.67	10		11/19/23 10:30	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/19/23 10:11	16984-48-8	
Sulfate	**1010**	mg/L	25.0	19.0	100		11/19/23 10:48	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**756**	ug/L	100	11.4	1	11/15/23 16:07	11/17/23 17:55	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/15/23 16:07	11/17/23 17:55	7440-43-9	
Calcium	**286000**	ug/L	2000	113	2	11/15/23 16:07	11/17/23 18:23	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	11/15/23 16:07	11/17/23 17:55	7440-47-3	
Iron	ND	ug/L	100	18.1	1	11/15/23 16:07	11/17/23 17:55	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/15/23 16:07	11/17/23 17:55	7439-92-1	
Lithium	**1590**	ug/L	20.0	5.1	1	11/15/23 16:07	11/17/23 17:55	7439-93-2	
Manganese	**1950**	ug/L	10.0	1.1	1	11/15/23 16:07	11/17/23 17:55	7439-96-5	
Molybdenum	**245**	ug/L	10.0	1.1	1	11/15/23 16:07	11/17/23 17:55	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.044	1	11/15/23 16:18	11/16/23 12:59	7440-36-0	
Arsenic	**63.1**	ug/L	1.0	0.064	1	11/15/23 16:18	11/16/23 12:59	7440-38-2	
Barium	**61.7**	ug/L	1.0	0.067	1	11/15/23 16:18	11/16/23 12:59	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	11/15/23 16:18	11/21/23 07:31	7440-41-7	
Cobalt	**2.1**	ug/L	1.0	0.024	1	11/15/23 16:18	11/16/23 12:59	7440-48-4	
Copper	**1.2**	ug/L	1.0	0.16	1	11/15/23 16:18	11/16/23 12:59	7440-50-8	
Selenium	ND	ug/L	1.0	0.23	1	11/15/23 16:18	11/16/23 12:59	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	11/15/23 16:18	11/16/23 12:59	7440-28-0	
Zinc	ND	ug/L	3.0	1.2	1	11/15/23 16:18	11/16/23 12:59	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	11/16/23 19:37	11/17/23 09:23	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1860**	mg/L	20.0	20.0	1		11/15/23 10:02		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG NOV 2023 P1R1
Pace Project No.: 50359169

Sample: DUP-1 **Lab ID: 50359169004** Collected: 11/08/23 15:35 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056								
	Pace Analytical Services - Indianapolis								
Chloride	**69.5**	mg/L	2.5	0.67	10		11/19/23 11:25	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/19/23 11:06	16984-48-8	
Sulfate	**1040**	mg/L	25.0	19.0	100		11/19/23 11:43	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Boron	**745**	ug/L	100	11.4	1	11/15/23 16:07	11/17/23 17:56	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/15/23 16:07	11/17/23 17:56	7440-43-9	
Calcium	**285000**	ug/L	2000	113	2	11/15/23 16:07	11/17/23 18:24	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	11/15/23 16:07	11/17/23 17:56	7440-47-3	
Iron	ND	ug/L	100	18.1	1	11/15/23 16:07	11/17/23 17:56	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/15/23 16:07	11/17/23 17:56	7439-92-1	
Lithium	**1580**	ug/L	20.0	5.1	1	11/15/23 16:07	11/17/23 17:56	7439-93-2	
Manganese	**1980**	ug/L	10.0	1.1	1	11/15/23 16:07	11/17/23 17:56	7439-96-5	
Molybdenum	**247**	ug/L	10.0	1.1	1	11/15/23 16:07	11/17/23 17:56	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.044	1	11/15/23 16:18	11/16/23 13:03	7440-36-0	
Arsenic	**61.9**	ug/L	1.0	0.064	1	11/15/23 16:18	11/16/23 13:03	7440-38-2	
Barium	**62.8**	ug/L	1.0	0.067	1	11/15/23 16:18	11/16/23 13:03	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	11/15/23 16:18	11/21/23 07:39	7440-41-7	
Cobalt	**2.2**	ug/L	1.0	0.024	1	11/15/23 16:18	11/16/23 13:03	7440-48-4	
Copper	**1.4**	ug/L	1.0	0.16	1	11/15/23 16:18	11/16/23 13:03	7440-50-8	
Selenium	ND	ug/L	1.0	0.23	1	11/15/23 16:18	11/16/23 13:03	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	11/15/23 16:18	11/16/23 13:03	7440-28-0	
Zinc	ND	ug/L	3.0	1.2	1	11/15/23 16:18	11/16/23 13:03	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
	Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	11/16/23 19:37	11/17/23 09:25	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
	Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1820**	mg/L	20.0	20.0	1		11/15/23 10:02		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG NOV 2023 P1R1
Pace Project No.: 50359169

Sample: MW-2R **Lab ID: 50359169005** Collected: 11/08/23 18:10 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056								
	Pace Analytical Services - Indianapolis								
Chloride	**63.4**	mg/L	2.5	0.67	10		11/19/23 12:20	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/19/23 12:01	16984-48-8	
Sulfate	**1390**	mg/L	25.0	19.0	100		11/19/23 12:38	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Boron	**1970**	ug/L	100	11.4	1	11/15/23 16:07	11/17/23 17:58	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/15/23 16:07	11/17/23 17:58	7440-43-9	
Calcium	**463000**	ug/L	5000	284	5	11/15/23 16:07	11/17/23 18:26	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	11/15/23 16:07	11/17/23 17:58	7440-47-3	
Iron	**13000**	ug/L	100	18.1	1	11/15/23 16:07	11/17/23 17:58	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/15/23 16:07	11/17/23 17:58	7439-92-1	
Lithium	**718**	ug/L	20.0	5.1	1	11/15/23 16:07	11/17/23 17:58	7439-93-2	
Manganese	**5480**	ug/L	10.0	1.1	1	11/15/23 16:07	11/17/23 17:58	7439-96-5	
Molybdenum	**10.9**	ug/L	10.0	1.1	1	11/15/23 16:07	11/17/23 17:58	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.044	1	11/15/23 16:18	11/16/23 13:06	7440-36-0	
Arsenic	**11.8**	ug/L	1.0	0.064	1	11/15/23 16:18	11/16/23 13:06	7440-38-2	
Barium	**51.8**	ug/L	1.0	0.067	1	11/15/23 16:18	11/16/23 13:06	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	11/15/23 16:18	11/21/23 07:47	7440-41-7	
Cobalt	**2.3**	ug/L	1.0	0.024	1	11/15/23 16:18	11/16/23 13:06	7440-48-4	
Copper	**2.1**	ug/L	1.0	0.16	1	11/15/23 16:18	11/16/23 13:06	7440-50-8	
Selenium	ND	ug/L	1.0	0.23	1	11/15/23 16:18	11/16/23 13:06	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	11/15/23 16:18	11/16/23 13:06	7440-28-0	
Zinc	**3.9**	ug/L	3.0	1.2	1	11/15/23 16:18	11/16/23 13:06	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
	Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	11/16/23 19:37	11/17/23 09:27	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
	Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2450**	mg/L	20.0	20.0	1		11/15/23 10:03		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG NOV 2023 P1R1
Pace Project No.: 50359169

QC Batch: 762643
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359169001, 50359169002, 50359169003, 50359169004, 50359169005

METHOD BLANK: 3495683 Matrix: Water
Associated Lab Samples: 50359169001, 50359169002, 50359169003, 50359169004, 50359169005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	11/19/23 14:29	
Fluoride	mg/L	ND	0.10	0.017	11/19/23 14:29	
Sulfate	mg/L	ND	0.25	0.19	11/19/23 14:29	

LABORATORY CONTROL SAMPLE: 3495684

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	92	80-120	
Fluoride	mg/L	1	0.97	97	80-120	
Sulfate	mg/L	5	4.8	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495685 3495686

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	40.7	25	25	64.8	64.7	96	96	80-120	0	15	
Fluoride	mg/L	0.18	1	1	1.2	1.2	99	99	80-120	1	15	
Sulfate	mg/L	1420	500	500	1930	1930	102	101	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG NOV 2023 P1R1
Pace Project No.: 50359169

QC Batch: 762829
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359169001, 50359169002, 50359169003, 50359169004, 50359169005

METHOD BLANK: 3496319 Matrix: Water
Associated Lab Samples: 50359169001, 50359169002, 50359169003, 50359169004, 50359169005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	11/17/23 08:19	

LABORATORY CONTROL SAMPLE: 3496320

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.9	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3496321 3496322

Parameter	Units	50359103002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.0	5.0	100	99	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG NOV 2023 P1R1
Pace Project No.: 50359169

QC Batch: 762698
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359169001, 50359169002, 50359169003, 50359169004, 50359169005

METHOD BLANK: 3495904 Matrix: Water
Associated Lab Samples: 50359169001, 50359169002, 50359169003, 50359169004, 50359169005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	11.4	11/17/23 17:16	
Cadmium	ug/L	ND	2.0	0.74	11/17/23 17:16	
Calcium	ug/L	ND	1000	56.7	11/17/23 17:16	
Chromium	ug/L	ND	10.0	1.4	11/17/23 17:16	
Iron	ug/L	ND	100	18.1	11/17/23 17:16	
Lead	ug/L	ND	10.0	4.0	11/17/23 17:16	
Lithium	ug/L	ND	20.0	5.1	11/17/23 17:16	
Manganese	ug/L	ND	10.0	1.1	11/17/23 17:16	
Molybdenum	ug/L	ND	10.0	1.1	11/17/23 17:16	

LABORATORY CONTROL SAMPLE: 3495905

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	924	92	80-120	
Cadmium	ug/L	1000	949	95	80-120	
Calcium	ug/L	10000	9830	98	80-120	
Chromium	ug/L	1000	980	98	80-120	
Iron	ug/L	10000	9790	98	80-120	
Lead	ug/L	1000	937	94	80-120	
Lithium	ug/L	1000	957	96	80-120	
Manganese	ug/L	1000	956	96	80-120	
Molybdenum	ug/L	1000	1010	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495906 3495907

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	4190	1000	1000	5110	5050	92	87	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	960	956	96	96	75-125	0	20	
Calcium	ug/L	562000	10000	10000	558000	555000	-39	-74	75-125	1	20	E,P6
Chromium	ug/L	ND	1000	1000	949	941	95	94	75-125	1	20	
Iron	ug/L	ND	10000	10000	9500	9380	95	94	75-125	1	20	
Lead	ug/L	ND	1000	1000	865	862	87	86	75-125	0	20	
Lithium	ug/L	345	1000	1000	1270	1260	92	92	75-125	1	20	
Manganese	ug/L	2180	1000	1000	3050	3030	87	84	75-125	1	20	
Molybdenum	ug/L	ND	1000	1000	1010	1010	100	100	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG NOV 2023 P1R1
Pace Project No.: 50359169

QC Batch: 763013
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359169001, 50359169002, 50359169003, 50359169004, 50359169005

METHOD BLANK: 3497196 Matrix: Water
Associated Lab Samples: 50359169001, 50359169002, 50359169003, 50359169004, 50359169005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.044	11/16/23 13:10	
Arsenic	ug/L	ND	1.0	0.064	11/16/23 13:10	
Barium	ug/L	ND	1.0	0.067	11/16/23 13:10	
Beryllium	ug/L	ND	0.20	0.026	11/20/23 06:08	
Cobalt	ug/L	ND	1.0	0.024	11/16/23 13:10	
Copper	ug/L	ND	1.0	0.16	11/16/23 13:10	
Selenium	ug/L	ND	1.0	0.23	11/16/23 13:10	
Thallium	ug/L	ND	1.0	0.042	11/16/23 13:10	
Zinc	ug/L	ND	3.0	1.2	11/16/23 13:10	

LABORATORY CONTROL SAMPLE: 3497197

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	40.8	102	80-120	
Arsenic	ug/L	40	36.5	91	80-120	
Barium	ug/L	40	39.6	99	80-120	
Beryllium	ug/L	40	43.3	108	80-120	
Cobalt	ug/L	40	40.7	102	80-120	
Copper	ug/L	40	44.3	111	80-120	
Selenium	ug/L	40	40.5	101	80-120	
Thallium	ug/L	40	40.5	101	80-120	
Zinc	ug/L	40	38.2	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3497198 3497199

Parameter	Units	50359167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	41.9	41.4	105	103	75-125	1	20	
Arsenic	ug/L	ND	40	40	39.8	40.2	99	100	75-125	1	20	
Barium	ug/L	29.3	40	40	71.2	71.4	105	105	75-125	0	20	
Beryllium	ug/L	ND	40	40	40.3	40.9	101	102	75-125	1	20	
Cobalt	ug/L	1.0	40	40	38.7	38.8	94	95	75-125	0	20	
Copper	ug/L	2.3	40	40	36.9	37.2	87	87	75-125	1	20	
Selenium	ug/L	ND	40	40	43.6	44.6	108	111	75-125	2	20	
Thallium	ug/L	ND	40	40	42.2	42.2	105	105	75-125	0	20	
Zinc	ug/L	ND	40	40	36.2	35.8	86	85	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG NOV 2023 P1R1
Pace Project No.: 50359169

QC Batch: 762769
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359169001

METHOD BLANK: 3496163 Matrix: Water
Associated Lab Samples: 50359169001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/15/23 09:37	

LABORATORY CONTROL SAMPLE: 3496164

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	270	90	80-120	

SAMPLE DUPLICATE: 3496165

Parameter	Units	50359133001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	500	542	8	10	

SAMPLE DUPLICATE: 3496166

Parameter	Units	50359167001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2650	2670	1	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG NOV 2023 P1R1
Pace Project No.: 50359169

QC Batch: 762770
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359169002, 50359169003, 50359169004, 50359169005

METHOD BLANK: 3496167 Matrix: Water
Associated Lab Samples: 50359169002, 50359169003, 50359169004, 50359169005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/15/23 10:00	

LABORATORY CONTROL SAMPLE: 3496168

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	274	91	80-120	

SAMPLE DUPLICATE: 3496169

Parameter	Units	50359169003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1860	1840	1	10	

SAMPLE DUPLICATE: 3496170

Parameter	Units	50359170001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2640	2600	2	10	C6,PP

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PETERSBURG NOV 2023 P1R1
Pace Project No.: 50359169

Sample: MW-4C **Lab ID: 50359169001** Collected: 11/08/23 12:40 Received: 11/09/23 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.320 ± 0.519 (1.16) C:NA T:92%**	pCi/L	11/28/23 11:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.373 ± 0.353 (0.720) C:82% T:82%**	pCi/L	11/28/23 14:46	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.373 ± 0.872 (1.88)**	pCi/L	11/29/23 10:33	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PETERSBURG NOV 2023 P1R1
Pace Project No.: 50359169

Sample: FIELD BLANK-1 **Lab ID: 50359169002** Collected: 11/08/23 12:40 Received: 11/09/23 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.0655 ± 0.498 (1.04) C:NA T:91%**	pCi/L	11/28/23 11:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.0601 ± 0.298 (0.682) C:83% T:88%**	pCi/L	11/28/23 14:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.0601 ± 0.796 (1.72)**	pCi/L	11/29/23 10:33	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PETERSBURG NOV 2023 P1R1
Pace Project No.: 50359169

Sample: MW-3 **Lab ID: 50359169003** Collected: 11/08/23 15:35 Received: 11/09/23 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.96 ± 0.754 (0.568) C:NA T:91%**	pCi/L	11/28/23 11:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.457 ± 0.354 (0.699) C:85% T:86%**	pCi/L	11/28/23 14:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.42 ± 1.11 (1.27)**	pCi/L	11/29/23 10:33	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PETERSBURG NOV 2023 P1R1
Pace Project No.: 50359169

Sample: DUP-1 **Lab ID: 50359169004** Collected: 11/08/23 15:35 Received: 11/09/23 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.16 ± 0.709 (0.896) C:NA T:86%**	pCi/L	11/28/23 12:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.670 ± 0.377 (0.678) C:84% T:84%**	pCi/L	11/28/23 14:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.83 ± 1.09 (1.57)**	pCi/L	11/29/23 10:33	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PETERSBURG NOV 2023 P1R1
Pace Project No.: 50359169

Sample: MW-2R **Lab ID: 50359169005** Collected: 11/08/23 18:10 Received: 11/09/23 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.334 ± 0.436 (0.720) C:NA T:91%**	pCi/L	11/28/23 12:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.694 ± 0.374 (0.656) C:81% T:84%**	pCi/L	11/28/23 14:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.03 ± 0.810 (1.38)**	pCi/L	11/29/23 10:33	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: PETERSBURG NOV 2023 P1R1
Pace Project No.: 50359169

QC Batch: 630786
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359169001, 50359169002, 50359169003, 50359169004, 50359169005

METHOD BLANK: 3075595 Matrix: Water
Associated Lab Samples: 50359169001, 50359169002, 50359169003, 50359169004, 50359169005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0633 ± 0.296 (0.677) C:80% T:86%	pCi/L	11/28/23 14:46	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: PETERSBURG NOV 2023 P1R1
Pace Project No.: 50359169

QC Batch: 630785
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359169001, 50359169002, 50359169003, 50359169004, 50359169005

METHOD BLANK: 3075593 Matrix: Water
Associated Lab Samples: 50359169001, 50359169002, 50359169003, 50359169004, 50359169005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.198 ± 0.308 (0.534) C:NA T:93%	pCi/L	11/28/23 11:55	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: PETERSBURG NOV 2023 P1R1
Pace Project No.: 50359169

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

C6	Result confirmed by reanalysis conducted outside of the method specified holding time.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
PL	The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.
PP	The mass of dried residue obtained did not meet the test method requirements based on volume used.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PETERSBURG NOV 2023 P1R1
Pace Project No.: 50359169

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359169001	**MW-4C**	EPA 9056	762643		
50359169002	**FIELD BLANK-1**	EPA 9056	762643		
50359169003	**MW-3**	EPA 9056	762643		
50359169004	**DUP-1**	EPA 9056	762643		
50359169005	**MW-2R**	EPA 9056	762643		
50359169001	**MW-4C**	EPA 3010	762698	EPA 6010	763695
50359169002	**FIELD BLANK-1**	EPA 3010	762698	EPA 6010	763695
50359169003	**MW-3**	EPA 3010	762698	EPA 6010	763695
50359169004	**DUP-1**	EPA 3010	762698	EPA 6010	763695
50359169005	**MW-2R**	EPA 3010	762698	EPA 6010	763695
50359169001	**MW-4C**	EPA 200.2	763013	EPA 6020	763255
50359169002	**FIELD BLANK-1**	EPA 200.2	763013	EPA 6020	763255
50359169003	**MW-3**	EPA 200.2	763013	EPA 6020	763255
50359169004	**DUP-1**	EPA 200.2	763013	EPA 6020	763255
50359169005	**MW-2R**	EPA 200.2	763013	EPA 6020	763255
50359169001	**MW-4C**	EPA 7470	762829	EPA 7470	763531
50359169002	**FIELD BLANK-1**	EPA 7470	762829	EPA 7470	763531
50359169003	**MW-3**	EPA 7470	762829	EPA 7470	763531
50359169004	**DUP-1**	EPA 7470	762829	EPA 7470	763531
50359169005	**MW-2R**	EPA 7470	762829	EPA 7470	763531
50359169001	**MW-4C**	EPA 903.1	630785		
50359169002	**FIELD BLANK-1**	EPA 903.1	630785		
50359169003	**MW-3**	EPA 903.1	630785		
50359169004	**DUP-1**	EPA 903.1	630785		
50359169005	**MW-2R**	EPA 903.1	630785		
50359169001	**MW-4C**	EPA 904.0	630786		
50359169002	**FIELD BLANK-1**	EPA 904.0	630786		
50359169003	**MW-3**	EPA 904.0	630786		
50359169004	**DUP-1**	EPA 904.0	630786		
50359169005	**MW-2R**	EPA 904.0	630786		
50359169001	**MW-4C**	Total Radium Calculation	632630		
50359169002	**FIELD BLANK-1**	Total Radium Calculation	632630		
50359169003	**MW-3**	Total Radium Calculation	632630		
50359169004	**DUP-1**	Total Radium Calculation	632630		
50359169005	**MW-2R**	Total Radium Calculation	632630		
50359169001	**MW-4C**	SM 2540C	762769		
50359169002	**FIELD BLANK-1**	SM 2540C	762770		
50359169003	**MW-3**	SM 2540C	762770		
50359169004	**DUP-1**	SM 2540C	762770		
50359169005	**MW-2R**	SM 2540C	762770		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO# : 50359169

50359169

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Required Project Information:		Section C Invoice Information:	
Company: Atlas Indianapolis	Report To: Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address: 7988 Centerpoint Drive Suite 100	Copy To:	Company Name:	Atlas Indianapolis
Indianapolis, IN 46256		Address:	
Email: mark.breting@oneatlas.com	Purchase Order #:	Pace Quote:	
Phone: (317)579-4082 Fax:	Project Name: Petersburg Nov 2023 P1R1	Pace Project Manager:	Will Statz
Requested Due Date:	Project #:	Pace Profile #:	10498/49

Regulatory Agency	
State / Location	
	IN

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	Metals, Total*	TDS	(Cl, F, SO4) IC	Rad-226/228 + Sum	Residual Chlorine (Y/N)
1	MW-4C			11-8-23	1125	11-8-23	1240		5	X		X							X	X	X	X	
2	Field Blank-1			11-8-23	1125	11-8-23	1240		5	X		X							X	X	X	X	
3	MW-3			11/8/23	1500	11/8/23	1535		5	X		X							X	X	X	X	
4	DUP-1			11/8/23	1500	11/8/23	1535		5	X		X							X	X	X	X	
5	MW-2R			11/8/23	1740	11/8/23	1810		5	X		X							X	X	X	X	
6																							
7																							
8																							
9																							
10																							
11																							
12																							

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Metals* 6010: B, Cd, Cr, Fe, Pb, Mn, Mo, Ca, Li (9)		11-9-23	8:00 AM		11/9	8:00 AM	
6020: Be, Co, Cu, Zn, As, Se, Sb, Ba, Tl (9) 7470 Hg		11-9	10:20 AM		11/9/23	1020	SEE Sample
Rad to Pace PA							

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Josh O'Brian					
SIGNATURE of SAMPLER:		DATE Signed: 11-8-23				

F-IN-Q-290-rev.23, 26Jun2023

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: MR 11/9/23 1240

1. **Courier:** ☐FED EX ☐UPS ☑CLIENT ☐PACE ☐NOW/JETT ☐OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H

4. **Cooler Temperature(s):** (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

0.9/0.9	0.7/0.7	1.1/1.1	0.5/0.5

5. **Packing Material:** ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:		✓	

COMMENTS: 1.5/1.5 0.9/0.9 0.7/0.7 0.6/0.6 1.1/1.1 0.9/0.9

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC									OTHER								
			MeOH (only)																													
			SBS																													
			DI																													
COC Line Item	WGFU	WGKU BG1U	R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																2		2	1										✓	✓			
2																↓		↓	↓									↓	↓			
3																↓		↓	↓									↓	↓			
4																↓		↓	↓									↓	↓			
5																↓		↓	↓									↓	↓			
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 12, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: PETERSBURG NOV 2023 P2R1
Pace Project No.: 50359170

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 09, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: PETERSBURG NOV 2023 P2R1
Pace Project No.: 50359170

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: PETERSBURG NOV 2023 P2R1
Pace Project No.: 50359170

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50359170001	**MW-4C**	Water	11/08/23 12:40	11/09/23 10:20
50359170002	**MW-4C MS**	Water	11/08/23 12:40	11/09/23 10:20
50359170003	**MW-4C MSD**	Water	11/08/23 12:40	11/09/23 10:20
50359170004	**FIELD BLANK - 1**	Water	11/08/23 12:40	11/09/23 10:20
50359170005	**MW-3**	Water	11/08/23 15:35	11/09/23 10:20
50359170006	**DUP-1**	Water	11/08/23 15:35	11/09/23 10:20
50359170007	**MW-2R**	Water	11/08/23 18:10	11/09/23 10:20

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: PETERSBURG NOV 2023 P2R1
Pace Project No.: 50359170

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50359170001	**MW-4C**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	5	PASI-I
		EPA 6020	DMT	5	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50359170002	**MW-4C MS**	EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
50359170003	**MW-4C MSD**	EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
50359170004	**FIELD BLANK - 1**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	5	PASI-I
		EPA 6020	DMT	5	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50359170005	**MW-3**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	5	PASI-I
		EPA 6020	DMT	5	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50359170006	**DUP-1**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	5	PASI-I
		EPA 6020	DMT	5	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50359170007	**MW-2R**	EPA 9056	KBB	3	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: PETERSBURG NOV 2023 P2R1
Pace Project No.: 50359170

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6010	MTM	5	PASI-I
		EPA 6020	DMT	5	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: PETERSBURG NOV 2023 P2R1
Pace Project No.: 50359170

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359170001	**MW-4C**					
EPA 9056	Chloride	37.8	mg/L	2.5	11/20/23 14:30	
EPA 9056	Fluoride	0.16	mg/L	0.10	11/20/23 14:13	
EPA 9056	Sulfate	1550	mg/L	25.0	11/20/23 14:46	
EPA 6010	Boron	4010	ug/L	100	11/20/23 12:21	
EPA 6010	Calcium	593000	ug/L	5000	11/20/23 13:55	
EPA 6010	Lithium	351	ug/L	20.0	11/20/23 12:21	
EPA 6020	Barium	28.6	ug/L	1.0	11/17/23 18:03	
EPA 6020	Cobalt	1.1	ug/L	1.0	11/17/23 18:03	
EPA 903.1	Radium-226	0.0853 ± 0.265 (0.512) C:NA T:87%	pCi/L		11/27/23 12:09	
EPA 904.0	Radium-228	1.48 ± 0.546 (0.764) C:76% T:80%	pCi/L		11/21/23 14:55	
Total Radium Calculation	Total Radium	1.57 ± 0.811 (1.28)	pCi/L		11/27/23 14:27	
SM 2540C	Total Dissolved Solids	2640	mg/L	10.0	11/15/23 10:03	C6,PP
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	11/27/23 14:16	H3
50359170002	**MW-4C MS**					
EPA 903.1	Radium-226	92.92 %REC ± NA (NA) C:NA T:NA	pCi/L		11/27/23 12:09	
EPA 904.0	Radium-228	86.45 %REC ± NA (NA) C:NA T:NA	pCi/L		11/21/23 14:55	
50359170003	**MW-4C MSD**					
EPA 903.1	Radium-226	76.16 %REC 19.82RPD ± NA (NA) C:NA T:NA	pCi/L		11/27/23 12:09	
EPA 904.0	Radium-228	84.45 %REC 2.34RPD ± NA (NA) C:NA T:NA	pCi/L		11/21/23 14:55	
50359170004	**FIELD BLANK - 1**					
EPA 903.1	Radium-226	0.0557 ± 0.254 (0.517) C:NA T:87%	pCi/L		11/27/23 12:20	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: PETERSBURG NOV 2023 P2R1
Pace Project No.: 50359170

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359170004	**FIELD BLANK - 1**					
EPA 904.0	Radium-228	0.275 ± 0.300 (0.622) C:85% T:90%	pCi/L		11/21/23 14:55	
Total Radium Calculation	Total Radium	0.331 ± 0.554 (1.14)	pCi/L		11/27/23 14:27	
SM 4500-H+B	pH at 25 Degrees C	8.6	Std. Units	0.10	11/27/23 14:18	H3
50359170005	**MW-3**					
EPA 9056	Chloride	67.5	mg/L	2.5	11/20/23 18:26	
EPA 9056	Sulfate	1120	mg/L	25.0	11/20/23 18:43	
EPA 6010	Boron	758	ug/L	100	11/20/23 12:30	
EPA 6010	Calcium	286000	ug/L	2000	11/20/23 14:00	
EPA 6010	Lithium	1640	ug/L	20.0	11/20/23 12:30	
EPA 6010	Molybdenum	242	ug/L	10.0	11/20/23 12:30	
EPA 6020	Arsenic	59.3	ug/L	1.0	11/17/23 18:30	
EPA 6020	Barium	59.1	ug/L	1.0	11/17/23 18:30	
EPA 6020	Cobalt	2.2	ug/L	1.0	11/17/23 18:30	
EPA 903.1	Radium-226	1.25 ± 0.599 (0.551) C:NA T:84%	pCi/L		11/27/23 12:20	
EPA 904.0	Radium-228	0.855 ± 0.411 (0.692) C:83% T:85%	pCi/L		11/21/23 14:55	
Total Radium Calculation	Total Radium	2.11 ± 1.01 (1.24)	pCi/L		11/27/23 14:27	
SM 2540C	Total Dissolved Solids	1890	mg/L	20.0	11/15/23 10:04	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	11/27/23 14:19	H3
50359170006	**DUP-1**					
EPA 9056	Chloride	68.8	mg/L	2.5	11/20/23 19:50	
EPA 9056	Sulfate	817	mg/L	25.0	11/20/23 20:07	
EPA 6010	Boron	752	ug/L	100	11/20/23 12:31	
EPA 6010	Calcium	283000	ug/L	2000	11/20/23 14:01	
EPA 6010	Lithium	1630	ug/L	20.0	11/20/23 12:31	
EPA 6010	Molybdenum	242	ug/L	10.0	11/20/23 12:31	
EPA 6020	Arsenic	58.6	ug/L	1.0	11/17/23 18:33	
EPA 6020	Barium	58.6	ug/L	1.0	11/17/23 18:33	
EPA 6020	Cobalt	2.2	ug/L	1.0	11/17/23 18:33	
EPA 903.1	Radium-226	0.743 ± 0.600 (0.873) C:NA T:90%	pCi/L		11/27/23 12:20	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: PETERSBURG NOV 2023 P2R1
Pace Project No.: 50359170

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359170006	**DUP-1**					
EPA 904.0	Radium-228	0.739 ± 0.402 (0.716) C:82% T:85%	pCi/L		11/21/23 14:40	
Total Radium Calculation	Total Radium	1.48 ± 1.00 (1.59)	pCi/L		11/27/23 14:27	
SM 2540C	Total Dissolved Solids	1840	mg/L	20.0	11/15/23 10:05	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	11/27/23 14:19	H3
50359170007	**MW-2R**					
EPA 9056	Chloride	70.3	mg/L	2.5	11/20/23 20:41	
EPA 9056	Sulfate	1780	mg/L	25.0	11/20/23 20:58	
EPA 6010	Boron	1900	ug/L	100	11/20/23 12:33	
EPA 6010	Calcium	460000	ug/L	5000	11/20/23 14:03	
EPA 6010	Lithium	638	ug/L	20.0	11/20/23 12:33	
EPA 6010	Molybdenum	10.6	ug/L	10.0	11/20/23 12:33	
EPA 6020	Arsenic	7.5	ug/L	1.0	11/17/23 18:37	
EPA 6020	Barium	45.2	ug/L	1.0	11/17/23 18:37	
EPA 6020	Cobalt	2.7	ug/L	1.0	11/17/23 18:37	
EPA 903.1	Radium-226	0.0509 ± 0.479 (0.924) C:NA T:90%	pCi/L		11/27/23 12:20	
EPA 904.0	Radium-228	1.33 ± 0.453 (0.589) C:84% T:87%	pCi/L		11/21/23 14:40	
Total Radium Calculation	Total Radium	1.38 ± 0.932 (1.51)	pCi/L		11/27/23 14:27	
SM 2540C	Total Dissolved Solids	2510	mg/L	40.0	11/15/23 10:05	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	11/27/23 14:20	H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG NOV 2023 P2R1
Pace Project No.: 50359170

Sample: MW-4C **Lab ID: 50359170001** Collected: 11/08/23 12:40 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**37.8**	mg/L	2.5	0.67	10		11/20/23 14:30	16887-00-6	
Fluoride	**0.16**	mg/L	0.10	0.017	1		11/20/23 14:13	16984-48-8	
Sulfate	**1550**	mg/L	25.0	19.0	100		11/20/23 14:46	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**4010**	ug/L	100	11.4	1	11/15/23 20:53	11/20/23 12:21	7440-42-8	
Calcium	**593000**	ug/L	5000	284	5	11/15/23 20:53	11/20/23 13:55	7440-70-2	
Lead	ND	ug/L	10.0	4.0	1	11/15/23 20:53	11/21/23 11:10	7439-92-1	
Lithium	**351**	ug/L	20.0	5.1	1	11/15/23 20:53	11/20/23 12:21	7439-93-2	
Molybdenum	ND	ug/L	10.0	1.1	1	11/15/23 20:53	11/20/23 12:21	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Arsenic	ND	ug/L	1.0	0.12	1	11/16/23 07:20	11/17/23 18:03	7440-38-2	
Barium	**28.6**	ug/L	1.0	0.065	1	11/16/23 07:20	11/17/23 18:03	7440-39-3	
Cobalt	**1.1**	ug/L	1.0	0.071	1	11/16/23 07:20	11/17/23 18:03	7440-48-4	
Selenium	ND	ug/L	1.0	0.19	1	11/16/23 07:20	11/17/23 18:03	7782-49-2	
Thallium	ND	ug/L	1.0	0.060	1	11/16/23 07:20	11/17/23 18:03	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2640**	mg/L	10.0	10.0	1		11/15/23 10:03		C6,PP
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		11/27/23 14:16		H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG NOV 2023 P2R1
Pace Project No.: 50359170

Sample: FIELD BLANK - 1 **Lab ID: 50359170004** Collected: 11/08/23 12:40 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056								
	Pace Analytical Services - Indianapolis								
Chloride	ND	mg/L	0.25	0.067	1		11/20/23 15:03	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/20/23 15:03	16984-48-8	
Sulfate	ND	mg/L	0.25	0.19	1		11/20/23 15:03	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Boron	ND	ug/L	100	11.4	1	11/15/23 20:53	11/20/23 12:28	7440-42-8	
Calcium	ND	ug/L	1000	56.7	1	11/15/23 20:53	11/20/23 12:28	7440-70-2	
Lead	ND	ug/L	10.0	4.0	1	11/15/23 20:53	11/21/23 11:14	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/15/23 20:53	11/20/23 12:28	7439-93-2	
Molybdenum	ND	ug/L	10.0	1.1	1	11/15/23 20:53	11/20/23 12:28	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Arsenic	ND	ug/L	1.0	0.12	1	11/16/23 07:20	11/17/23 18:26	7440-38-2	
Barium	ND	ug/L	1.0	0.065	1	11/16/23 07:20	11/17/23 18:26	7440-39-3	
Cobalt	ND	ug/L	1.0	0.071	1	11/16/23 07:20	11/17/23 18:26	7440-48-4	
Selenium	ND	ug/L	1.0	0.19	1	11/16/23 07:20	11/17/23 18:26	7782-49-2	
Thallium	ND	ug/L	1.0	0.060	1	11/16/23 07:20	11/17/23 18:26	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
	Pace Analytical Services - Indianapolis								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		11/15/23 10:04		PL
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
	Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**8.6**	Std. Units	0.10	0.10	1		11/27/23 14:18		H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG NOV 2023 P2R1
Pace Project No.: 50359170

Sample: MW-3 **Lab ID: 50359170005** Collected: 11/08/23 15:35 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**67.5**	mg/L	2.5	0.67	10		11/20/23 18:26	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/20/23 18:09	16984-48-8	
Sulfate	**1120**	mg/L	25.0	19.0	100		11/20/23 18:43	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**758**	ug/L	100	11.4	1	11/15/23 20:53	11/20/23 12:30	7440-42-8	
Calcium	**286000**	ug/L	2000	113	2	11/15/23 20:53	11/20/23 14:00	7440-70-2	
Lead	ND	ug/L	10.0	4.0	1	11/15/23 20:53	11/21/23 11:19	7439-92-1	
Lithium	**1640**	ug/L	20.0	5.1	1	11/15/23 20:53	11/20/23 12:30	7439-93-2	
Molybdenum	**242**	ug/L	10.0	1.1	1	11/15/23 20:53	11/20/23 12:30	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Arsenic	**59.3**	ug/L	1.0	0.12	1	11/16/23 07:20	11/17/23 18:30	7440-38-2	
Barium	**59.1**	ug/L	1.0	0.065	1	11/16/23 07:20	11/17/23 18:30	7440-39-3	
Cobalt	**2.2**	ug/L	1.0	0.071	1	11/16/23 07:20	11/17/23 18:30	7440-48-4	
Selenium	ND	ug/L	1.0	0.19	1	11/16/23 07:20	11/17/23 18:30	7782-49-2	
Thallium	ND	ug/L	1.0	0.060	1	11/16/23 07:20	11/17/23 18:30	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1890**	mg/L	20.0	20.0	1		11/15/23 10:04		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		11/27/23 14:19		H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG NOV 2023 P2R1
Pace Project No.: 50359170

Sample: DUP-1 **Lab ID: 50359170006** Collected: 11/08/23 15:35 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056								
	Pace Analytical Services - Indianapolis								
Chloride	**68.8**	mg/L	2.5	0.67	10		11/20/23 19:50	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/20/23 19:33	16984-48-8	
Sulfate	**817**	mg/L	25.0	19.0	100		11/20/23 20:07	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Boron	**752**	ug/L	100	11.4	1	11/15/23 20:53	11/20/23 12:31	7440-42-8	
Calcium	**283000**	ug/L	2000	113	2	11/15/23 20:53	11/20/23 14:01	7440-70-2	
Lead	ND	ug/L	10.0	4.0	1	11/15/23 20:53	11/21/23 11:20	7439-92-1	
Lithium	**1630**	ug/L	20.0	5.1	1	11/15/23 20:53	11/20/23 12:31	7439-93-2	
Molybdenum	**242**	ug/L	10.0	1.1	1	11/15/23 20:53	11/20/23 12:31	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Arsenic	**58.6**	ug/L	1.0	0.12	1	11/16/23 07:20	11/17/23 18:33	7440-38-2	
Barium	**58.6**	ug/L	1.0	0.065	1	11/16/23 07:20	11/17/23 18:33	7440-39-3	
Cobalt	**2.2**	ug/L	1.0	0.071	1	11/16/23 07:20	11/17/23 18:33	7440-48-4	
Selenium	ND	ug/L	1.0	0.19	1	11/16/23 07:20	11/17/23 18:33	7782-49-2	
Thallium	ND	ug/L	1.0	0.060	1	11/16/23 07:20	11/17/23 18:33	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
	Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1840**	mg/L	20.0	20.0	1		11/15/23 10:05		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
	Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		11/27/23 14:19		H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG NOV 2023 P2R1
Pace Project No.: 50359170

Sample: MW-2R **Lab ID: 50359170007** Collected: 11/08/23 18:10 Received: 11/09/23 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**70.3**	mg/L	2.5	0.67	10		11/20/23 20:41	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/20/23 20:24	16984-48-8	
Sulfate	**1780**	mg/L	25.0	19.0	100		11/20/23 20:58	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**1900**	ug/L	100	11.4	1	11/15/23 20:53	11/20/23 12:33	7440-42-8	
Calcium	**460000**	ug/L	5000	284	5	11/15/23 20:53	11/20/23 14:03	7440-70-2	
Lead	ND	ug/L	10.0	4.0	1	11/15/23 20:53	11/21/23 11:21	7439-92-1	
Lithium	**638**	ug/L	20.0	5.1	1	11/15/23 20:53	11/20/23 12:33	7439-93-2	
Molybdenum	**10.6**	ug/L	10.0	1.1	1	11/15/23 20:53	11/20/23 12:33	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Arsenic	**7.5**	ug/L	1.0	0.12	1	11/16/23 07:20	11/17/23 18:37	7440-38-2	
Barium	**45.2**	ug/L	1.0	0.065	1	11/16/23 07:20	11/17/23 18:37	7440-39-3	
Cobalt	**2.7**	ug/L	1.0	0.071	1	11/16/23 07:20	11/17/23 18:37	7440-48-4	
Selenium	ND	ug/L	1.0	0.19	1	11/16/23 07:20	11/17/23 18:37	7782-49-2	
Thallium	ND	ug/L	1.0	0.060	1	11/16/23 07:20	11/17/23 18:37	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2510**	mg/L	40.0	40.0	1		11/15/23 10:05		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		11/27/23 14:20		H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG NOV 2023 P2R1
Pace Project No.: 50359170

QC Batch: 763630
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359170001, 50359170004, 50359170005, 50359170006, 50359170007

METHOD BLANK: 3500496 Matrix: Water
Associated Lab Samples: 50359170001, 50359170004, 50359170005, 50359170006, 50359170007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	11/20/23 10:17	
Fluoride	mg/L	ND	0.10	0.017	11/20/23 10:17	
Sulfate	mg/L	ND	0.25	0.19	11/20/23 10:17	

LABORATORY CONTROL SAMPLE: 3500497

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	93	80-120	
Fluoride	mg/L	1	0.95	95	80-120	
Sulfate	mg/L	5	4.6	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3500498 3500499

Parameter	Units	50359170001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	37.8	25	25	63.2	62.9	102	100	80-120	0	15	
Fluoride	mg/L	0.16	1	1	1.1	1.1	98	96	80-120	1	15	
Sulfate	mg/L	1550	500	500	1900	1780	71	47	80-120	7	15	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG NOV 2023 P2R1
Pace Project No.: 50359170

QC Batch: 762703
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359170001, 50359170004, 50359170005, 50359170006, 50359170007

METHOD BLANK: 3495916 Matrix: Water
Associated Lab Samples: 50359170001, 50359170004, 50359170005, 50359170006, 50359170007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	11.4	11/20/23 11:59	
Calcium	ug/L	ND	1000	56.7	11/20/23 11:59	
Lead	ug/L	ND	10.0	4.0	11/20/23 11:59	
Lithium	ug/L	ND	20.0	5.1	11/20/23 11:59	
Molybdenum	ug/L	ND	10.0	1.1	11/20/23 11:59	

LABORATORY CONTROL SAMPLE: 3495917

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	907	91	80-120	
Calcium	ug/L	10000	9320	93	80-120	
Lead	ug/L	1000	864	86	80-120	
Lithium	ug/L	1000	935	93	80-120	
Molybdenum	ug/L	1000	933	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495918 3495919

Parameter	Units	50359170001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	4010	1000	1000	4920	4880	92	87	75-125	1	20	
Calcium	ug/L	593000	10000	10000	599000	585000	65	-77	75-125	2	20	P6
Lead	ug/L	ND	1000	1000	874	866	87	87	75-125	1	20	
Lithium	ug/L	351	1000	1000	1280	1290	93	94	75-125	1	20	
Molybdenum	ug/L	ND	1000	1000	974	968	96	96	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG NOV 2023 P2R1
Pace Project No.: 50359170

QC Batch: 763177
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359170001, 50359170004, 50359170005, 50359170006, 50359170007

METHOD BLANK: 3497911 Matrix: Water
Associated Lab Samples: 50359170001, 50359170004, 50359170005, 50359170006, 50359170007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	ug/L	ND	1.0	0.12	11/17/23 11:21	
Barium	ug/L	ND	1.0	0.065	11/17/23 11:21	
Cobalt	ug/L	ND	1.0	0.071	11/17/23 11:21	
Selenium	ug/L	ND	1.0	0.19	11/17/23 11:21	
Thallium	ug/L	ND	1.0	0.060	11/17/23 11:21	

LABORATORY CONTROL SAMPLE: 3497912

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	40	38.3	96	80-120	
Barium	ug/L	40	40.3	101	80-120	
Cobalt	ug/L	40	39.6	99	80-120	
Selenium	ug/L	40	39.3	98	80-120	
Thallium	ug/L	40	40.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3497913 3497914

Parameter	Units	50359170001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	ND	40	40	38.0	37.4	94	93	75-125	1	20	
Barium	ug/L	28.6	40	40	70.2	68.2	104	99	75-125	3	20	
Cobalt	ug/L	1.1	40	40	38.4	37.8	93	92	75-125	2	20	
Selenium	ug/L	ND	40	40	41.0	41.4	102	103	75-125	1	20	
Thallium	ug/L	ND	40	40	42.2	41.7	105	104	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG NOV 2023 P2R1
Pace Project No.: 50359170

QC Batch: 762770
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359170001, 50359170004, 50359170005, 50359170006, 50359170007

METHOD BLANK: 3496167 Matrix: Water
Associated Lab Samples: 50359170001, 50359170004, 50359170005, 50359170006, 50359170007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/15/23 10:00	

LABORATORY CONTROL SAMPLE: 3496168

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	274	91	80-120	

SAMPLE DUPLICATE: 3496169

Parameter	Units	50359169003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1860	1840	1	10	

SAMPLE DUPLICATE: 3496170

Parameter	Units	50359170001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2640	2600	2	10	C6,PP

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG NOV 2023 P2R1
Pace Project No.: 50359170

QC Batch: 764862
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359170001, 50359170004, 50359170005, 50359170006, 50359170007

SAMPLE DUPLICATE: 3505588

Parameter	Units	50359111028 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.7	6.7	0	2	H3

SAMPLE DUPLICATE: 3505589

Parameter	Units	50359170001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.2	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PETERSBURG NOV 2023 P2R1
Pace Project No.: 50359170

Sample: MW-4C **Lab ID: 50359170001** Collected: 11/08/23 12:40 Received: 11/09/23 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0853 ± 0.265 (0.512) C:NA T:87%**	pCi/L	11/27/23 12:09	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.48 ± 0.546 (0.764) C:76% T:80%**	pCi/L	11/21/23 14:55	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.57 ± 0.811 (1.28)**	pCi/L	11/27/23 14:27	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PETERSBURG NOV 2023 P2R1
Pace Project No.: 50359170

Sample: MW-4C MS **Lab ID: 50359170002** Collected: 11/08/23 12:40 Received: 11/09/23 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**92.92 %REC ± NA (NA) C:NA T:NA**	pCi/L	11/27/23 12:09	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**86.45 %REC ± NA (NA) C:NA T:NA**	pCi/L	11/21/23 14:55	15262-20-1	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PETERSBURG NOV 2023 P2R1
Pace Project No.: 50359170

Sample: MW-4C MSD **Lab ID: 50359170003** Collected: 11/08/23 12:40 Received: 11/09/23 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**76.16 %REC 19.82RPD ± NA (NA) C:NA T:NA**	pCi/L	11/27/23 12:09	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**84.45 %REC 2.34RPD ± NA (NA) C:NA T:NA**	pCi/L	11/21/23 14:55	15262-20-1	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PETERSBURG NOV 2023 P2R1
Pace Project No.: 50359170

Sample: FIELD BLANK - 1 **Lab ID: 50359170004** Collected: 11/08/23 12:40 Received: 11/09/23 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0557 ± 0.254 (0.517) C:NA T:87%**	pCi/L	11/27/23 12:20	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.275 ± 0.300 (0.622) C:85% T:90%**	pCi/L	11/21/23 14:55	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.331 ± 0.554 (1.14)**	pCi/L	11/27/23 14:27	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PETERSBURG NOV 2023 P2R1
Pace Project No.: 50359170

Sample: MW-3 **Lab ID: 50359170005** Collected: 11/08/23 15:35 Received: 11/09/23 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.25 ± 0.599 (0.551) C:NA T:84%**	pCi/L	11/27/23 12:20	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.855 ± 0.411 (0.692) C:83% T:85%**	pCi/L	11/21/23 14:55	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.11 ± 1.01 (1.24)**	pCi/L	11/27/23 14:27	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PETERSBURG NOV 2023 P2R1
Pace Project No.: 50359170

Sample: DUP-1 **Lab ID: 50359170006** Collected: 11/08/23 15:35 Received: 11/09/23 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.743 ± 0.600 (0.873) C:NA T:90%**	pCi/L	11/27/23 12:20	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.739 ± 0.402 (0.716) C:82% T:85%**	pCi/L	11/21/23 14:40	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.48 ± 1.00 (1.59)**	pCi/L	11/27/23 14:27	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PETERSBURG NOV 2023 P2R1
Pace Project No.: 50359170

Sample: MW-2R **Lab ID: 50359170007** Collected: 11/08/23 18:10 Received: 11/09/23 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0509 ± 0.479 (0.924) C:NA T:90%**	pCi/L	11/27/23 12:20	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.33 ± 0.453 (0.589) C:84% T:87%**	pCi/L	11/21/23 14:40	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.38 ± 0.932 (1.51)**	pCi/L	11/27/23 14:27	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: PETERSBURG NOV 2023 P2R1
Pace Project No.: 50359170

QC Batch: 630224 Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359170001, 50359170002, 50359170003, 50359170004, 50359170005, 50359170006, 50359170007

METHOD BLANK: 3072611 Matrix: Water
Associated Lab Samples: 50359170001, 50359170002, 50359170003, 50359170004, 50359170005, 50359170006, 50359170007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.123 ± 0.267 (0.492) C:NA T:90%	pCi/L	11/27/23 11:57	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: PETERSBURG NOV 2023 P2R1
Pace Project No.: 50359170

QC Batch: 630225 Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359170001, 50359170002, 50359170003, 50359170004, 50359170005, 50359170006, 50359170007

METHOD BLANK: 3072612 Matrix: Water
Associated Lab Samples: 50359170001, 50359170002, 50359170003, 50359170004, 50359170005, 50359170006, 50359170007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.237 ± 0.254 (0.525) C:86% T:93%	pCi/L	11/21/23 11:13	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: PETERSBURG NOV 2023 P2R1
Pace Project No.: 50359170

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

C6	Result confirmed by reanalysis conducted outside of the method specified holding time.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
PL	The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.
PP	The mass of dried residue obtained did not meet the test method requirements based on volume used.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PETERSBURG NOV 2023 P2R1
Pace Project No.: 50359170

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359170001	**MW-4C**	EPA 9056	763630		
50359170004	**FIELD BLANK - 1**	EPA 9056	763630		
50359170005	**MW-3**	EPA 9056	763630		
50359170006	**DUP-1**	EPA 9056	763630		
50359170007	**MW-2R**	EPA 9056	763630		
50359170001	**MW-4C**	EPA 3010	762703	EPA 6010	763988
50359170004	**FIELD BLANK - 1**	EPA 3010	762703	EPA 6010	763988
50359170005	**MW-3**	EPA 3010	762703	EPA 6010	763988
50359170006	**DUP-1**	EPA 3010	762703	EPA 6010	763988
50359170007	**MW-2R**	EPA 3010	762703	EPA 6010	763988
50359170001	**MW-4C**	EPA 200.2	763177	EPA 6020	763454
50359170004	**FIELD BLANK - 1**	EPA 200.2	763177	EPA 6020	763454
50359170005	**MW-3**	EPA 200.2	763177	EPA 6020	763454
50359170006	**DUP-1**	EPA 200.2	763177	EPA 6020	763454
50359170007	**MW-2R**	EPA 200.2	763177	EPA 6020	763454
50359170001	**MW-4C**	EPA 903.1	630224		
50359170002	**MW-4C MS**	EPA 903.1	630224		
50359170003	**MW-4C MSD**	EPA 903.1	630224		
50359170004	**FIELD BLANK - 1**	EPA 903.1	630224		
50359170005	**MW-3**	EPA 903.1	630224		
50359170006	**DUP-1**	EPA 903.1	630224		
50359170007	**MW-2R**	EPA 903.1	630224		
50359170001	**MW-4C**	EPA 904.0	630225		
50359170002	**MW-4C MS**	EPA 904.0	630225		
50359170003	**MW-4C MSD**	EPA 904.0	630225		
50359170004	**FIELD BLANK - 1**	EPA 904.0	630225		
50359170005	**MW-3**	EPA 904.0	630225		
50359170006	**DUP-1**	EPA 904.0	630225		
50359170007	**MW-2R**	EPA 904.0	630225		
50359170001	**MW-4C**	Total Radium Calculation	632150		
50359170004	**FIELD BLANK - 1**	Total Radium Calculation	632150		
50359170005	**MW-3**	Total Radium Calculation	632150		
50359170006	**DUP-1**	Total Radium Calculation	632150		
50359170007	**MW-2R**	Total Radium Calculation	632150		
50359170001	**MW-4C**	SM 2540C	762770		
50359170004	**FIELD BLANK - 1**	SM 2540C	762770		
50359170005	**MW-3**	SM 2540C	762770		
50359170006	**DUP-1**	SM 2540C	762770		
50359170007	**MW-2R**	SM 2540C	762770		
50359170001	**MW-4C**	SM 4500-H+B	764862		
50359170004	**FIELD BLANK - 1**	SM 4500-H+B	764862		
50359170005	**MW-3**	SM 4500-H+B	764862		
50359170006	**DUP-1**	SM 4500-H+B	764862		
50359170007	**MW-2R**	SM 4500-H+B	764862		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO# : 50359170

50359170

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Required Project Information:		Section C Invoice Information:	
Company: Atlas Indianapolis	Report To: Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address: 7988 Centerpoint Drive Suite 100	Copy To:	Company Name:	Atlas Indianapolis
Indianapolis, IN 46256		Address:	
Email: mark.breting@oneatlas.com	Purchase Order #:	Pace Quote:	
Phone: (317)579-4082 Fax	Project Name: Petersburg Nov 2023 P2R1	Pace Project Manager:	Will Statz
Requested Due Date:	Project #:	Pace Profile #:	10498/50

Regulatory Agency

State / Location: IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): Metals, Total*	TDS/pH	(Cl, F, SO4) IC	Rad-226/228 + Sum	Residual Chlorine (Y/N)
1	MW-4C			11-8-23	1125	11-8-23	1240		5	X		X							X	X	X	X	
2	MS-1			11-8-23	1125	11-8-23	1240		5	X		X							X	X	X	X	
3	MSD-1			11-8-23	1125	11-8-23	1240		5	X		X							X	X	X	X	
4	Field Blank 1			11-8-23	1125	11-8-23	1240		5	X		X							X	X	X	X	
5	MW-3			11/8/23	1500	11/8/23	1535		5	X		X							X	X	X	X	
6	DUP-1			11/8/23	1500	11/8/23	1535		5	X		X							X	X	X	X	
7	MW-2R			11/8/23	1740	11/8/23	1780		5	X		X							X	X	X	X	
8																							
9																							
10																							
11																							
12																							

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Metals* 6010: B, Pb, Mo, Ca, Li (5)		11-9-23	8:00 AM		11-9	8:00 AM	
6020: Co, As, Se, Ba, Tl (5)	Jay Williams	11-9-	10:20 AM		11/9/23	1020	SEE SHEET
Rad 226/228 to Pace PA							

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Josh O'Brien

SIGNATURE of SAMPLER: [signature] DATE Signed: 11-8-23

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

F-IN-Q-290-rev.23, 26Jun2023

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: MR 11/9/23 1240

1. **Courier:** ☐FED EX ☐UPS ☑CLIENT ☐PACE ☐NOW/JETT ☐OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H
4. **Cooler Temperature(s):** 0.9/0.9 | 0.7/0.7 | 1.1/1.1 | 0.5/0.5
   (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)
5. **Packing Material:** ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:		✓	

COMMENTS: 1.5/1.5 0.9/0.9 0.7/0.7 0.6/0.6 1.1/1.1 0.5/0.5

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC									OTHER								
			MeOH (only)																											Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
			SBS																											Red	Yellow	Green	Black
			DI		VOA VIAL HS >6mm																												
COC Line Item	WGFU	WGKU BG1U	R	DG9H VG9H		VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
1																6		6	3													
2																																
3																																
4																2		2	1													
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 12, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 10, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50359369001	**AP-4A**	Water	11/09/23 12:10	11/10/23 10:33
50359369002	**DUP-4**	Water	11/09/23 08:00	11/10/23 10:33
50359369003	**AP-4I**	Water	11/09/23 14:20	11/10/23 10:33
50359369004	**AP-5**	Water	11/09/23 17:00	11/10/23 10:33

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50359369001	**AP-4A**	EPA 9056	KBB	1	PASI-I
		EPA 6010	MTM	5	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	DMT	2	PASI-I
		EPA 6020	DMT	2	PASI-I
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359369002	**DUP-4**	EPA 9056	KBB	1	PASI-I
		EPA 6010	MTM	5	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	DMT	2	PASI-I
		EPA 6020	DMT	2	PASI-I
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359369003	**AP-4I**	EPA 9056	KBB	1	PASI-I
		EPA 6010	MTM	5	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	DMT	2	PASI-I
		EPA 6020	DMT	2	PASI-I
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359369004	**AP-5**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	5	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	DMT	2	PASI-I
		EPA 6020	DMT	2	PASI-I
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359369001	**AP-4A**					
EPA 9056	Bromide	7.7	mg/L	0.050	11/22/23 19:40	
EPA 6010	Iron	7880	ug/L	100	11/18/23 12:20	
EPA 6010	Magnesium	79300	ug/L	1000	11/18/23 12:20	
EPA 6010	Potassium	17000	ug/L	1000	11/18/23 12:20	
EPA 6010	Silica	11800	ug/L	450	11/18/23 12:20	N2
EPA 6010	Sodium	50700	ug/L	1000	11/18/23 12:20	
EPA 6010	Boron, Dissolved	24100	ug/L	100	11/21/23 00:06	
EPA 6010	Iron, Dissolved	7930	ug/L	100	11/21/23 00:06	
EPA 6010	Lithium, Dissolved	39.2	ug/L	20.0	11/21/23 00:06	
EPA 6010	Magnesium, Dissolved	79400	ug/L	1000	11/21/23 00:06	
EPA 6010	Molybdenum, Dissolved	246	ug/L	10.0	11/21/23 00:06	
EPA 6010	Potassium, Dissolved	17900	ug/L	1000	11/21/23 00:06	
EPA 6020	Manganese	3270	ug/L	25.0	11/19/23 14:49	
EPA 6020	Manganese, Dissolved	3390	ug/L	25.0	11/19/23 15:27	
SM 2320B	Alkalinity, Total as CaCO3	124	mg/L	10.0	11/15/23 23:48	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	124	mg/L	10.0	11/15/23 23:48	
SM 2540C	Total Dissolved Solids	2830	mg/L	40.0	11/16/23 09:31	
SM 4500-S2-D	Sulfide	0.030J	mg/L	0.10	11/14/23 15:01	
HACH 8146	Iron, Ferrous	5.3	mg/L	1.0	11/10/23 17:41	H3,N2
EPA 365.1	Phosphate as P04	0.15	mg/L	0.15	11/28/23 10:52	
SM 5310C	Total Organic Carbon	2.0	mg/L	1.0	11/21/23 22:01	
SM 5310C	Dissolved Organic Carbon	4.3	mg/L	1.0	11/21/23 18:41	
50359369002	**DUP-4**					
EPA 9056	Bromide	7.4	mg/L	0.050	11/22/23 19:57	
EPA 6010	Iron	7960	ug/L	100	11/18/23 12:22	
EPA 6010	Magnesium	80900	ug/L	1000	11/18/23 12:22	
EPA 6010	Potassium	17400	ug/L	1000	11/18/23 12:22	
EPA 6010	Silica	11900	ug/L	450	11/18/23 12:22	N2
EPA 6010	Sodium	51700	ug/L	1000	11/18/23 12:22	
EPA 6010	Boron, Dissolved	23600	ug/L	100	11/21/23 00:07	
EPA 6010	Iron, Dissolved	7810	ug/L	100	11/21/23 00:07	
EPA 6010	Lithium, Dissolved	38.1	ug/L	20.0	11/21/23 00:07	
EPA 6010	Magnesium, Dissolved	78200	ug/L	1000	11/21/23 00:07	
EPA 6010	Molybdenum, Dissolved	240	ug/L	10.0	11/21/23 00:07	
EPA 6010	Potassium, Dissolved	17400	ug/L	1000	11/21/23 00:07	
EPA 6020	Manganese	3370	ug/L	25.0	11/19/23 14:52	
EPA 6020	Manganese, Dissolved	3350	ug/L	25.0	11/19/23 15:30	
SM 2320B	Alkalinity, Total as CaCO3	123	mg/L	10.0	11/15/23 23:48	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	123	mg/L	10.0	11/15/23 23:48	
SM 2540C	Total Dissolved Solids	2930	mg/L	20.0	11/16/23 09:44	
HACH 8146	Iron, Ferrous	5.3	mg/L	1.0	11/10/23 17:27	H3,N2
SM 5310C	Total Organic Carbon	2.0	mg/L	1.0	11/21/23 22:21	
SM 5310C	Dissolved Organic Carbon	2.8	mg/L	1.0	11/21/23 18:52	
50359369003	**AP-4I**					
EPA 9056	Bromide	1.1	mg/L	0.050	11/22/23 20:30	
EPA 6010	Iron	817	ug/L	100	11/18/23 12:23	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359369003	**AP-4I**					
EPA 6010	Magnesium	61400	ug/L	1000	11/18/23 12:23	
EPA 6010	Potassium	5950	ug/L	1000	11/18/23 12:23	
EPA 6010	Silica	12600	ug/L	450	11/18/23 12:23	N2
EPA 6010	Sodium	27700	ug/L	1000	11/18/23 12:23	
EPA 6010	Boron, Dissolved	9700	ug/L	100	11/21/23 00:09	
EPA 6010	Iron, Dissolved	723	ug/L	100	11/21/23 00:09	
EPA 6010	Magnesium, Dissolved	61200	ug/L	1000	11/21/23 00:09	
EPA 6010	Molybdenum, Dissolved	74.9	ug/L	10.0	11/21/23 00:09	
EPA 6010	Potassium, Dissolved	6200	ug/L	1000	11/21/23 00:09	
EPA 6020	Manganese	5280	ug/L	50.0	11/19/23 14:56	
EPA 6020	Manganese, Dissolved	5250	ug/L	50.0	11/19/23 15:33	
SM 2320B	Alkalinity, Total as CaCO3	194	mg/L	10.0	11/15/23 23:48	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	194	mg/L	10.0	11/15/23 23:48	
SM 2540C	Total Dissolved Solids	2700	mg/L	20.0	11/16/23 09:45	
HACH 8146	Iron, Ferrous	0.65	mg/L	0.20	11/10/23 17:45	H3,N2
SM 5310C	Total Organic Carbon	1.4	mg/L	1.0	11/21/23 22:41	
SM 5310C	Dissolved Organic Carbon	3.4	mg/L	1.0	11/21/23 19:33	
50359369004	**AP-5**					
EPA 9056	Bromide	0.29	mg/L	0.050	11/22/23 20:47	
EPA 9056	Chloride	32.4	mg/L	2.5	11/22/23 21:04	
EPA 9056	Sulfate	775	mg/L	25.0	11/22/23 21:21	
EPA 6010	Magnesium	40800	ug/L	1000	11/18/23 12:25	
EPA 6010	Potassium	8910	ug/L	1000	11/18/23 12:25	
EPA 6010	Silica	13200	ug/L	450	11/18/23 12:25	N2
EPA 6010	Sodium	23600	ug/L	1000	11/18/23 12:25	
EPA 6010	Boron, Dissolved	5560	ug/L	100	11/21/23 00:10	
EPA 6010	Magnesium, Dissolved	40400	ug/L	1000	11/21/23 00:10	
EPA 6010	Molybdenum, Dissolved	64.8	ug/L	10.0	11/21/23 00:10	
EPA 6010	Potassium, Dissolved	9360	ug/L	1000	11/21/23 00:10	
EPA 6020	Manganese	1600	ug/L	10.0	11/19/23 14:59	
EPA 6020	Manganese, Dissolved	1580	ug/L	10.0	11/19/23 15:37	
SM 2320B	Alkalinity, Total as CaCO3	267	mg/L	10.0	11/15/23 23:48	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	267	mg/L	10.0	11/15/23 23:48	
SM 2540C	Total Dissolved Solids	1600	mg/L	20.0	11/16/23 09:45	
SM 4500-S2-D	Sulfide	0.14	mg/L	0.10	11/14/23 15:56	
EPA 353.2	Nitrogen, Nitrate	4.3	mg/L	0.10	11/11/23 00:46	
SM 5310C	Dissolved Organic Carbon	1.8	mg/L	1.0	11/21/23 19:43	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

Sample: AP-4A **Lab ID: 50359369001** Collected: 11/09/23 12:10 Received: 11/10/23 10:33 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056								
	Pace Analytical Services - Indianapolis								
Bromide	**7.7**	mg/L	0.050	0.0090	1		11/22/23 19:40	24959-67-9	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Iron	**7880**	ug/L	100	18.1	1	11/17/23 08:32	11/18/23 12:20	7439-89-6	
Magnesium	**79300**	ug/L	1000	32.8	1	11/17/23 08:32	11/18/23 12:20	7439-95-4	
Potassium	**17000**	ug/L	1000	120	1	11/17/23 08:32	11/18/23 12:20	7440-09-7	
Silica	**11800**	ug/L	450		1	11/17/23 08:32	11/18/23 12:20	7631-86-9	N2
Sodium	**50700**	ug/L	1000	48.2	1	11/17/23 08:32	11/18/23 12:20	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Boron, Dissolved	**24100**	ug/L	100	6.2	1	11/20/23 08:20	11/21/23 00:06	7440-42-8	
Iron, Dissolved	**7930**	ug/L	100	30.0	1	11/20/23 08:20	11/21/23 00:06	7439-89-6	
Lithium, Dissolved	**39.2**	ug/L	20.0	6.8	1	11/20/23 08:20	11/21/23 00:06	7439-93-2	
Magnesium, Dissolved	**79400**	ug/L	1000	33.6	1	11/20/23 08:20	11/21/23 00:06	7439-95-4	
Molybdenum, Dissolved	**246**	ug/L	10.0	0.78	1	11/20/23 08:20	11/21/23 00:06	7439-98-7	
Potassium, Dissolved	**17900**	ug/L	1000	97.8	1	11/20/23 08:20	11/21/23 00:06	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	2.0	1	11/16/23 15:15	11/21/23 01:22	7429-90-5	
Manganese	**3270**	ug/L	25.0	4.0	25	11/16/23 15:15	11/19/23 14:49	7439-96-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.0	1	11/16/23 15:15	11/21/23 00:43	7429-90-5	
Manganese, Dissolved	**3390**	ug/L	25.0	4.0	25	11/16/23 15:15	11/19/23 15:27	7439-96-5	
2320B Alkalinity	Analytical Method: SM 2320B								
	Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**124**	mg/L	10.0	10.0	1		11/15/23 23:48		
Alkalinity,Bicarbonate (CaCO3)	**124**	mg/L	10.0	10.0	1		11/15/23 23:48		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/15/23 23:48		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
	Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2830**	mg/L	40.0	40.0	1		11/16/23 09:31		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D								
	Pace Analytical Services - Indianapolis								
Sulfide	**0.030J**	mg/L	0.10	0.025	1		11/14/23 15:01	18496-25-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

Sample: AP-4A **Lab ID: 50359369001** Collected: 11/09/23 12:10 Received: 11/10/23 10:33 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**5.3**	mg/L	1.0	0.18	5		11/10/23 17:41	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/11/23 00:21	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/11/23 00:21	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.15**	mg/L	0.15	0.15	1	11/20/23 13:00	11/28/23 10:52		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**2.0**	mg/L	1.0	0.24	1		11/21/23 22:01	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**4.3**	mg/L	1.0	0.24	1		11/21/23 18:41		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

Sample: DUP-4 **Lab ID: 50359369002** Collected: 11/09/23 08:00 Received: 11/10/23 10:33 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**7.4**	mg/L	0.050	0.0090	1		11/22/23 19:57	24959-67-9	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Iron	**7960**	ug/L	100	18.1	1	11/17/23 08:32	11/18/23 12:22	7439-89-6	
Magnesium	**80900**	ug/L	1000	32.8	1	11/17/23 08:32	11/18/23 12:22	7439-95-4	
Potassium	**17400**	ug/L	1000	120	1	11/17/23 08:32	11/18/23 12:22	7440-09-7	
Silica	**11900**	ug/L	450		1	11/17/23 08:32	11/18/23 12:22	7631-86-9	N2
Sodium	**51700**	ug/L	1000	48.2	1	11/17/23 08:32	11/18/23 12:22	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**23600**	ug/L	100	6.2	1	11/20/23 08:20	11/21/23 00:07	7440-42-8	
Iron, Dissolved	**7810**	ug/L	100	30.0	1	11/20/23 08:20	11/21/23 00:07	7439-89-6	
Lithium, Dissolved	**38.1**	ug/L	20.0	6.8	1	11/20/23 08:20	11/21/23 00:07	7439-93-2	
Magnesium, Dissolved	**78200**	ug/L	1000	33.6	1	11/20/23 08:20	11/21/23 00:07	7439-95-4	
Molybdenum, Dissolved	**240**	ug/L	10.0	0.78	1	11/20/23 08:20	11/21/23 00:07	7439-98-7	
Potassium, Dissolved	**17400**	ug/L	1000	97.8	1	11/20/23 08:20	11/21/23 00:07	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	2.0	1	11/16/23 15:15	11/21/23 01:29	7429-90-5	
Manganese	**3370**	ug/L	25.0	4.0	25	11/16/23 15:15	11/19/23 14:52	7439-96-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.0	1	11/16/23 15:15	11/21/23 00:50	7429-90-5	
Manganese, Dissolved	**3350**	ug/L	25.0	4.0	25	11/16/23 15:15	11/19/23 15:30	7439-96-5	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**123**	mg/L	10.0	10.0	1		11/15/23 23:48		
Alkalinity,Bicarbonate (CaCO3)	**123**	mg/L	10.0	10.0	1		11/15/23 23:48		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/15/23 23:48		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2930**	mg/L	20.0	20.0	1		11/16/23 09:44		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 15:01	18496-25-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

Sample: DUP-4 **Lab ID: 50359369002** Collected: 11/09/23 08:00 Received: 11/10/23 10:33 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**5.3**	mg/L	1.0	0.18	5		11/10/23 17:27	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/11/23 00:08	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/11/23 00:08	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/20/23 13:00	11/28/23 10:54		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**2.0**	mg/L	1.0	0.24	1		11/21/23 22:21	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.8**	mg/L	1.0	0.24	1		11/21/23 18:52		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

Sample: AP-4I **Lab ID: 50359369003** Collected: 11/09/23 14:20 Received: 11/10/23 10:33 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056								
	Pace Analytical Services - Indianapolis								
Bromide	**1.1**	mg/L	0.050	0.0090	1		11/22/23 20:30	24959-67-9	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Iron	**817**	ug/L	100	18.1	1	11/17/23 08:32	11/18/23 12:23	7439-89-6	
Magnesium	**61400**	ug/L	1000	32.8	1	11/17/23 08:32	11/18/23 12:23	7439-95-4	
Potassium	**5950**	ug/L	1000	120	1	11/17/23 08:32	11/18/23 12:23	7440-09-7	
Silica	**12600**	ug/L	450		1	11/17/23 08:32	11/18/23 12:23	7631-86-9	N2
Sodium	**27700**	ug/L	1000	48.2	1	11/17/23 08:32	11/18/23 12:23	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Boron, Dissolved	**9700**	ug/L	100	6.2	1	11/20/23 08:20	11/21/23 00:09	7440-42-8	
Iron, Dissolved	**723**	ug/L	100	30.0	1	11/20/23 08:20	11/21/23 00:09	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/20/23 08:20	11/21/23 00:09	7439-93-2	
Magnesium, Dissolved	**61200**	ug/L	1000	33.6	1	11/20/23 08:20	11/21/23 00:09	7439-95-4	
Molybdenum, Dissolved	**74.9**	ug/L	10.0	0.78	1	11/20/23 08:20	11/21/23 00:09	7439-98-7	
Potassium, Dissolved	**6200**	ug/L	1000	97.8	1	11/20/23 08:20	11/21/23 00:09	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	2.0	1	11/16/23 15:15	11/21/23 01:36	7429-90-5	
Manganese	**5280**	ug/L	50.0	8.0	50	11/16/23 15:15	11/19/23 14:56	7439-96-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.0	1	11/16/23 15:15	11/21/23 00:57	7429-90-5	
Manganese, Dissolved	**5250**	ug/L	50.0	8.0	50	11/16/23 15:15	11/19/23 15:33	7439-96-5	
2320B Alkalinity	Analytical Method: SM 2320B								
	Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**194**	mg/L	10.0	10.0	1		11/15/23 23:48		
Alkalinity,Bicarbonate (CaCO3)	**194**	mg/L	10.0	10.0	1		11/15/23 23:48		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/15/23 23:48		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
	Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2700**	mg/L	20.0	20.0	1		11/16/23 09:45		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D								
	Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 15:01	18496-25-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

Sample: AP-4I **Lab ID: 50359369003** Collected: 11/09/23 14:20 Received: 11/10/23 10:33 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**0.65**	mg/L	0.20	0.035	1		11/10/23 17:45	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/11/23 00:31	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/11/23 00:31	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/20/23 13:00	11/28/23 10:54		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.4**	mg/L	1.0	0.24	1		11/21/23 22:41	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.4**	mg/L	1.0	0.24	1		11/21/23 19:33		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

Sample: AP-5 **Lab ID: 50359369004** Collected: 11/09/23 17:00 Received: 11/10/23 10:33 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.29**	mg/L	0.050	0.0090	1		11/22/23 20:47	24959-67-9	
Chloride	**32.4**	mg/L	2.5	0.67	10		11/22/23 21:04	16887-00-6	
Sulfate	**775**	mg/L	25.0	19.0	100		11/22/23 21:21	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Iron	ND	ug/L	100	18.1	1	11/17/23 08:32	11/18/23 12:25	7439-89-6	
Magnesium	**40800**	ug/L	1000	32.8	1	11/17/23 08:32	11/18/23 12:25	7439-95-4	
Potassium	**8910**	ug/L	1000	120	1	11/17/23 08:32	11/18/23 12:25	7440-09-7	
Silica	**13200**	ug/L	450		1	11/17/23 08:32	11/18/23 12:25	7631-86-9	N2
Sodium	**23600**	ug/L	1000	48.2	1	11/17/23 08:32	11/18/23 12:25	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**5560**	ug/L	100	6.2	1	11/20/23 08:20	11/21/23 00:10	7440-42-8	
Iron, Dissolved	ND	ug/L	100	30.0	1	11/20/23 08:20	11/21/23 00:10	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/20/23 08:20	11/21/23 00:10	7439-93-2	
Magnesium, Dissolved	**40400**	ug/L	1000	33.6	1	11/20/23 08:20	11/21/23 00:10	7439-95-4	
Molybdenum, Dissolved	**64.8**	ug/L	10.0	0.78	1	11/20/23 08:20	11/21/23 00:10	7439-98-7	
Potassium, Dissolved	**9360**	ug/L	1000	97.8	1	11/20/23 08:20	11/21/23 00:10	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	2.0	1	11/16/23 15:15	11/21/23 03:23	7429-90-5	
Manganese	**1600**	ug/L	10.0	1.6	10	11/16/23 15:15	11/19/23 14:59	7439-96-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.0	1	11/16/23 15:15	11/17/23 14:37	7429-90-5	
Manganese, Dissolved	**1580**	ug/L	10.0	1.6	10	11/16/23 15:15	11/19/23 15:37	7439-96-5	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**267**	mg/L	10.0	10.0	1		11/15/23 23:48		
Alkalinity,Bicarbonate (CaCO3)	**267**	mg/L	10.0	10.0	1		11/15/23 23:48		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/15/23 23:48		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1600**	mg/L	20.0	20.0	1		11/16/23 09:45		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	**0.14**	mg/L	0.10	0.025	1		11/14/23 15:56	18496-25-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

Sample: AP-5 **Lab ID: 50359369004** Collected: 11/09/23 17:00 Received: 11/10/23 10:33 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/10/23 17:50	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**4.3**	mg/L	0.10	0.011	1		11/11/23 00:46	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/11/23 00:46	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/20/23 13:00	11/28/23 10:55		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.24	1		11/21/23 23:06	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.8**	mg/L	1.0	0.24	1		11/21/23 19:43		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

QC Batch: 763714
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359369001, 50359369002, 50359369003, 50359369004

METHOD BLANK: 3500868 Matrix: Water
Associated Lab Samples: 50359369001, 50359369002, 50359369003, 50359369004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	11/22/23 15:27	
Chloride	mg/L	ND	0.25	0.067	11/22/23 15:27	
Sulfate	mg/L	ND	0.25	0.19	11/22/23 15:27	

LABORATORY CONTROL SAMPLE: 3500869

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.94	94	80-120	
Chloride	mg/L	2.5	2.3	93	80-120	
Sulfate	mg/L	5	4.6	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3500870 3500871

Parameter	Units	50359369004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	0.29	1	1	1.2	1.2	94	95	80-120	1	15	
Chloride	mg/L	32.4	25	25	54.6	54.9	89	90	80-120	0	15	
Sulfate	mg/L	775	500	500	1150	1150	75	75	80-120	0	15	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

QC Batch: 762715
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359369001, 50359369002, 50359369003, 50359369004

METHOD BLANK: 3495966 Matrix: Water
Associated Lab Samples: 50359369001, 50359369002, 50359369003, 50359369004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron	ug/L	ND	100	18.1	11/18/23 12:16	
Magnesium	ug/L	ND	1000	32.8	11/18/23 12:16	
Potassium	ug/L	ND	1000	120	11/18/23 12:16	
Silica	ug/L	ND	450		11/18/23 12:16	N2
Sodium	ug/L	ND	1000	48.2	11/18/23 12:16	

LABORATORY CONTROL SAMPLE: 3495967

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	10000	9920	99	80-120	
Magnesium	ug/L	10000	9930	99	80-120	
Potassium	ug/L	10000	9580	96	80-120	
Silica	ug/L	10700	10600	99	80-120	N2
Sodium	ug/L	10000	9820	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495968 3495969

Parameter	Units	50359369004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	ug/L	ND	10000	10000	9420	9630	94	96	75-125	2	20	
Magnesium	ug/L	40800	10000	10000	49000	49600	82	88	75-125	1	20	
Potassium	ug/L	8910	10000	10000	18100	18500	92	96	75-125	2	20	
Silica	ug/L	13200	10700	10700	23300	23600	95	98	75-125	2	20	N2
Sodium	ug/L	23600	10000	10000	32600	32800	90	92	75-125	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495970 3495971

Parameter	Units	50359387004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	ug/L	ND	10000	10000	9800	9840	98	98	75-125	0	20	
Magnesium	ug/L	40400	10000	10000	51100	50700	107	103	75-125	1	20	
Potassium	ug/L	8960	10000	10000	18900	19000	99	100	75-125	0	20	
Silica	ug/L	13100	10700	10700	24300	24200	104	104	75-125	0	20	N2
Sodium	ug/L	23700	10000	10000	33900	33700	102	100	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

QC Batch: 763251
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359369001, 50359369002, 50359369003, 50359369004

METHOD BLANK: 3498388 Matrix: Water
Associated Lab Samples: 50359369001, 50359369002, 50359369003, 50359369004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	11/20/23 23:34	
Iron, Dissolved	ug/L	ND	100	30.0	11/20/23 23:34	
Lithium, Dissolved	ug/L	ND	20.0	6.8	11/20/23 23:34	
Magnesium, Dissolved	ug/L	ND	1000	33.6	11/20/23 23:34	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	11/20/23 23:34	
Potassium, Dissolved	ug/L	ND	1000	97.8	11/20/23 23:34	

LABORATORY CONTROL SAMPLE: 3498389

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	948	95	80-120	
Iron, Dissolved	ug/L	10000	9740	97	80-120	
Lithium, Dissolved	ug/L	1000	1000	100	80-120	
Magnesium, Dissolved	ug/L	10000	9550	95	80-120	
Molybdenum, Dissolved	ug/L	1000	981	98	80-120	
Potassium, Dissolved	ug/L	10000	9530	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498390 3498391

Parameter	Units	50359369004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	5560	1000	1000	6400	6460	84	90	75-125	1	20	
Iron, Dissolved	ug/L	ND	10000	10000	9630	9640	96	96	75-125	0	20	
Lithium, Dissolved	ug/L	ND	1000	1000	1050	1050	104	104	75-125	0	20	
Magnesium, Dissolved	ug/L	40400	10000	10000	48500	48900	81	85	75-125	1	20	
Molybdenum, Dissolved	ug/L	64.8	1000	1000	1070	1070	101	100	75-125	0	20	
Potassium, Dissolved	ug/L	9360	10000	10000	19000	19200	97	98	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

QC Batch: 763279
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359369001, 50359369002, 50359369003, 50359369004

METHOD BLANK: 3498549 Matrix: Water
Associated Lab Samples: 50359369001, 50359369002, 50359369003, 50359369004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	2.0	11/17/23 04:29	
Manganese	ug/L	ND	1.0	0.16	11/17/23 04:29	

LABORATORY CONTROL SAMPLE: 3498550

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	387	97	80-120	
Manganese	ug/L	40	40.4	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498551 3498552

Parameter	Units	50359369004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	ND	400	400	380	377	94	94	75-125	1	20	
Manganese	ug/L	1600	40	40	1640	1620	83	42	75-125	1	20	P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

QC Batch: 763281
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359369001, 50359369002, 50359369003, 50359369004

METHOD BLANK: 3498561 Matrix: Water
Associated Lab Samples: 50359369001, 50359369002, 50359369003, 50359369004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.0	11/17/23 04:18	
Manganese, Dissolved	ug/L	ND	1.0	0.16	11/17/23 04:18	

LABORATORY CONTROL SAMPLE: 3498562

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	379	95	80-120	
Manganese, Dissolved	ug/L	40	39.1	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498563 3498564

Parameter	Units	50359369004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	386	380	96	95	75-125	2	20	
Manganese, Dissolved	ug/L	1580	40	40	1620	1600	96	65	75-125	1	20	P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

QC Batch: 763222
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359369001, 50359369002, 50359369003, 50359369004

METHOD BLANK: 3498239 Matrix: Water
Associated Lab Samples: 50359369001, 50359369002, 50359369003, 50359369004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/15/23 23:48	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/15/23 23:48	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/15/23 23:48	

LABORATORY CONTROL SAMPLE: 3498240

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.2	98	90-110	

SAMPLE DUPLICATE: 3498241

Parameter	Units	50359348001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	223	228	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	223	228	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3498242

Parameter	Units	50359369004 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	267	273	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	267	273	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

QC Batch: 763076
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359369001

METHOD BLANK: 3497385 Matrix: Water
Associated Lab Samples: 50359369001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/16/23 09:21	

LABORATORY CONTROL SAMPLE: 3497386

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	275	92	80-120	

SAMPLE DUPLICATE: 3497387

Parameter	Units	50359341005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1530	1480	3	10	

SAMPLE DUPLICATE: 3497388

Parameter	Units	50359369001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2830	2830	0	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

QC Batch: 763077
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359369002, 50359369003, 50359369004

METHOD BLANK: 3497399 Matrix: Water
Associated Lab Samples: 50359369002, 50359369003, 50359369004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/16/23 09:42	

LABORATORY CONTROL SAMPLE: 3497400

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	295	98	80-120	

SAMPLE DUPLICATE: 3497401

Parameter	Units	50359369004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1600	1570	2	10	

SAMPLE DUPLICATE: 3497402

Parameter	Units	50359387002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2950	2920	1	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

QC Batch: 762847
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359369001, 50359369002, 50359369003

METHOD BLANK: 3496377 Matrix: Water
Associated Lab Samples: 50359369001, 50359369002, 50359369003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/14/23 15:01	

LABORATORY CONTROL SAMPLE: 3496378

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.54	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3496379 3496380

Parameter	Units	50359362001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.47	0.47	94	93	90-110	0	20	

MATRIX SPIKE SAMPLE: 3496381

Parameter	Units	50359366005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	<0.20	0.5	0.53	103	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

QC Batch: 762916
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359369004

METHOD BLANK: 3496645 Matrix: Water
Associated Lab Samples: 50359369004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/14/23 15:56	

LABORATORY CONTROL SAMPLE: 3496646

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.53	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3496647 3496648

Parameter	Units	50359369004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	0.14	0.5	0.5	0.54	0.54	78	79	90-110	0	20	M3

MATRIX SPIKE SAMPLE: 3496649

Parameter	Units	50359451001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.33	65	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

QC Batch: 762238 | Analysis Method: HACH 8146
QC Batch Method: HACH 8146 | Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359369001, 50359369002, 50359369003, 50359369004

METHOD BLANK: 3493993 Matrix: Water
Associated Lab Samples: 50359369001, 50359369002, 50359369003, 50359369004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/10/23 17:23	H3,N2

LABORATORY CONTROL SAMPLE: 3493994

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	103	90-110	H3,N2

MATRIX SPIKE SAMPLE: 3493995

Parameter	Units	50359251004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.0	101	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3493996 3493997

Parameter	Units	50359369004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.0	107	105	90-110	2	20	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

QC Batch: 762273
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359369001, 50359369002, 50359369003, 50359369004

METHOD BLANK: 3494306 Matrix: Water
Associated Lab Samples: 50359369001, 50359369002, 50359369003, 50359369004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/11/23 00:03	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/11/23 00:03	

LABORATORY CONTROL SAMPLE: 3494307

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	102	90-110	
Nitrogen, Nitrite	mg/L	1	1.1	106	90-110	

MATRIX SPIKE SAMPLE: 3494308

Parameter	Units	50359425007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.0	99	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.1	106	90-110	

MATRIX SPIKE SAMPLE: 3494309

Parameter	Units	50359369004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	4.3	5	9.6	105	90-110	
Nitrogen, Nitrite	mg/L	ND	5	5.3	105	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

QC Batch: 763911
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359369001, 50359369002, 50359369003, 50359369004

METHOD BLANK: 3501884 Matrix: Water
Associated Lab Samples: 50359369001, 50359369002, 50359369003, 50359369004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	11/28/23 10:40	

LABORATORY CONTROL SAMPLE: 3501885

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3501886 3501887

Parameter	Units	50359369004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.5	1.5				2		

MATRIX SPIKE SAMPLE: 3501892

Parameter	Units	50359317005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	<0.15		1.5			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

QC Batch: 764033
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359369001, 50359369002, 50359369003, 50359369004

METHOD BLANK: 3502334 Matrix: Water
Associated Lab Samples: 50359369001, 50359369002, 50359369003, 50359369004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	11/21/23 21:15	

LABORATORY CONTROL SAMPLE: 3502335

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3502336 3502337

Parameter	Units	50359369004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	ND	10	10	10.5	10.6	98	99	80-120	1	20	

MATRIX SPIKE SAMPLE: 3502338

Parameter	Units	50359425001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.8	10	11.8	100	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

QC Batch: 764233
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359369001, 50359369002, 50359369003, 50359369004

METHOD BLANK: 3502995 Matrix: Water
Associated Lab Samples: 50359369001, 50359369002, 50359369003, 50359369004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	11/21/23 14:35	

LABORATORY CONTROL SAMPLE: 3502996

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.6	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3502997 3502998

Parameter	Units	50359253005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.3	10	10	11.9	12.0	95	97	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503002 3503003

Parameter	Units	50359369004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.8	10	10	10.8	11.2	90	93	80-120	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359369001	**AP-4A**	EPA 9056	763714		
50359369002	**DUP-4**	EPA 9056	763714		
50359369003	**AP-4I**	EPA 9056	763714		
50359369004	**AP-5**	EPA 9056	763714		
50359369001	**AP-4A**	EPA 3010	762715	EPA 6010	763791
50359369002	**DUP-4**	EPA 3010	762715	EPA 6010	763791
50359369003	**AP-4I**	EPA 3010	762715	EPA 6010	763791
50359369004	**AP-5**	EPA 3010	762715	EPA 6010	763791
50359369001	**AP-4A**	EPA 3010	763251	EPA 6010	764131
50359369002	**DUP-4**	EPA 3010	763251	EPA 6010	764131
50359369003	**AP-4I**	EPA 3010	763251	EPA 6010	764131
50359369004	**AP-5**	EPA 3010	763251	EPA 6010	764131
50359369001	**AP-4A**	EPA 200.2	763279	EPA 6020	763496
50359369002	**DUP-4**	EPA 200.2	763279	EPA 6020	763496
50359369003	**AP-4I**	EPA 200.2	763279	EPA 6020	763496
50359369004	**AP-5**	EPA 200.2	763279	EPA 6020	763496
50359369001	**AP-4A**	EPA 200.2	763281	EPA 6020	763498
50359369002	**DUP-4**	EPA 200.2	763281	EPA 6020	763498
50359369003	**AP-4I**	EPA 200.2	763281	EPA 6020	763498
50359369004	**AP-5**	EPA 200.2	763281	EPA 6020	763498
50359369001	**AP-4A**	SM 2320B	763222		
50359369002	**DUP-4**	SM 2320B	763222		
50359369003	**AP-4I**	SM 2320B	763222		
50359369004	**AP-5**	SM 2320B	763222		
50359369001	**AP-4A**	SM 2540C	763076		
50359369002	**DUP-4**	SM 2540C	763077		
50359369003	**AP-4I**	SM 2540C	763077		
50359369004	**AP-5**	SM 2540C	763077		
50359369001	**AP-4A**	SM 4500-S2-D	762847		
50359369002	**DUP-4**	SM 4500-S2-D	762847		
50359369003	**AP-4I**	SM 4500-S2-D	762847		
50359369004	**AP-5**	SM 4500-S2-D	762916		
50359369001	**AP-4A**	HACH 8146	762238		
50359369002	**DUP-4**	HACH 8146	762238		
50359369003	**AP-4I**	HACH 8146	762238		
50359369004	**AP-5**	HACH 8146	762238		
50359369001	**AP-4A**	EPA 353.2	762273		
50359369002	**DUP-4**	EPA 353.2	762273		
50359369003	**AP-4I**	EPA 353.2	762273		
50359369004	**AP-5**	EPA 353.2	762273		
50359369001	**AP-4A**	EPA 365.1	763911	EPA 365.1	765037
50359369002	**DUP-4**	EPA 365.1	763911	EPA 365.1	765037
50359369003	**AP-4I**	EPA 365.1	763911	EPA 365.1	765037

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PETERSBURG P3R4 NOV 2023
Pace Project No.: 50359369

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359369004	**AP-5**	EPA 365.1	763911	EPA 365.1	765037
50359369001	**AP-4A**	SM 5310C	764033		
50359369002	**DUP-4**	SM 5310C	764033		
50359369003	**AP-4I**	SM 5310C	764033		
50359369004	**AP-5**	SM 5310C	764033		
50359369001	**AP-4A**	SM 5310C	764233		
50359369002	**DUP-4**	SM 5310C	764233		
50359369003	**AP-4I**	SM 5310C	764233		
50359369004	**AP-5**	SM 5310C	764233		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO# : 50359369

50359369

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Required Project Information:		Section C Invoice Information:	
Company: Atlas Indianapolis	Report To: Mark Breting	Attention: Accounts Payable - Paula Sedam	
Address: 7988 Centerpoint Drive Suite 100	Copy To:	Company Name: Atlas Indianapolis	
Indianapolis, IN 46256		Address:	Regulatory Agency
Email: mark.breting@oneatlas.com	Purchase Order #:	Pace Quote:	
Phone: (317)579-4082 Fax:	Project Name: Petersburg P3R4 Nov 2023	Pace Project Manager: Will Statz	State / Location
Requested Due Date:	Project #:	Pace Profile #: 10498/52	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO2, NO3 Wet	(Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity*, Ferrous Iron, pH	TOC by 5310C	DOC by 5310C	Sulfide	Phosphate				Residual Chlorine (Y/N)	
	MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																		Y			Y								
1	AP-4A			11-9-23	1125	11-9-23	1210		9	X	X	X		X					X	X	X	X	X	X	X	X					
2	DUP-4			11-9-23		11-9-23			9	X	X	X		X					X	X	X	X	X	X	X	X					
3	AP-4I			11/9/23	1400	11/9/23	1420		9	X	X	X		X					X	X	X	X	X	X	X	X					
4	AP-5			11/9/23	1620	11/9/23	1700		9	X	X	X		X					X	X	X	X	X	X	X	X					
5	MS-3			11/9/23	1620	11/9/23	1700		9	X	X	X		X					X	X	X	X	X	X	X	X					
6	MSD-3			11/9/23	1620	11/9/23	1700		9	X	X	X		X					X	X	X	X	X	X	X	X					
7																															
8																															
9																															
10																															
11																															
12																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Metals: 6010 Fe, Mg, Na, K, sila 6020 - Al, Mn	Josh O'B	11-9-23	800pm	Jay Williams	11-10	800				
* Dissolved FF 6010 (B, Fe, Mo, Li, Mg, K)	Jay Williams	11-10	10:33am	CR	11-10-23	1033	0.8	Y	Y	Y
Diss 6020 - Al, Mn										
Alkalinity = (Total , Bicarb & Carb)										

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER: Josh O'Brian						
SIGNATURE of SAMPLER: Josh O'B	DATE Signed: 11-9-23					

F-IN-Q-290-rev.23, 26Jun2023

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 11-10-23 1106 CRR

1. **Courier:** ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H

4. **Cooler Temperature(s):** 0.8/0.8 | 0.8/0.8 | 1.1/1.1 | _____

(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		—	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	—		
Short Hold Time Analysis (48 hours or less)? **Analysis:** NO2/NO3	—					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 1240		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A —
Rush TAT Requested (4 days or less):		—	Residual Chlorine Check (Total/Amenable/Free Cyanide)			—
Custody Signatures Present?	—		Headspace Wisconsin Sulfide?			—
Containers Intact?:	—		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent —
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID		—	Trip Blank Present?		—	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			—

COMMENTS: Start time used on containers not end (11-10-23 CRR)

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC										OTHER								
			MeOH (only)																														
			SBS																														
			DI																														
COC Line Item	WGFU	WGKU BG1U	R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1												1	1				1	2	1	1	1		1					WT	✓	✓		✓
2												1	1				1	2	1	1	1		1					WT	✓	✓		✓
3												1	1				1	2	1	1	1		1					WT	✓	✓		✓
4												3	3				3	6	3	3	3		3					WT	✓	✓		✓
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 08, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 10, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50359374001	**MW-44A**	Water	11/09/23 13:50	11/10/23 10:30
50359374002	**MW-44B**	Water	11/09/23 09:40	11/10/23 10:30
50359374003	**MW-44I**	Water	11/09/23 12:12	11/10/23 10:30

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50359374001	**MW-44A**	EPA 9056	KBB	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	DMT	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359374002	**MW-44B**	EPA 9056	KBB	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	DMT	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359374003	**MW-44I**	EPA 9056	KBB	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	JPK	6	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	DMT	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359374001	**MW-44A**					
EPA 9056	Bromide	0.51	mg/L	0.050	11/22/23 11:27	
EPA 9056	Chloride	64.1	mg/L	2.5	11/22/23 11:42	
EPA 9056	Sulfate	412	mg/L	2.5	11/22/23 11:42	
EPA 6010	Boron	1050	ug/L	100	11/18/23 12:32	
EPA 6010	Calcium	239000	ug/L	2000	11/18/23 13:50	
EPA 6010	Iron	7870	ug/L	100	11/18/23 12:32	
EPA 6010	Magnesium	50500	ug/L	1000	11/18/23 12:32	
EPA 6010	Molybdenum	64.3	ug/L	10.0	11/18/23 12:32	
EPA 6010	Potassium	2620	ug/L	1000	11/18/23 12:32	
EPA 6010	Silica	19400	ug/L	450	11/18/23 12:32	N2
EPA 6010	Sodium	30200	ug/L	1000	11/18/23 12:32	
EPA 6010	Boron, Dissolved	1010	ug/L	100	11/21/23 02:34	
EPA 6010	Iron, Dissolved	7710	ug/L	100	11/21/23 02:34	
EPA 6010	Magnesium, Dissolved	48600	ug/L	1000	11/21/23 02:34	
EPA 6010	Molybdenum, Dissolved	60.6	ug/L	10.0	11/21/23 02:34	
EPA 6010	Potassium, Dissolved	2560	ug/L	1000	11/21/23 02:34	
EPA 6020	Aluminum	24.7	ug/L	10.0	11/21/23 02:47	
EPA 6020	Arsenic	2.9	ug/L	1.0	11/20/23 07:06	
EPA 6020	Barium	32.8	ug/L	1.0	11/20/23 07:06	
EPA 6020	Manganese	803	ug/L	5.0	11/20/23 03:32	
EPA 6020	Manganese, Dissolved	819	ug/L	10.0	11/22/23 03:43	
EPA 903.1	Radium-226	0.127 ± 0.558 (1.06) C:NA T:84%	pCi/L		12/05/23 11:56	
EPA 904.0	Radium-228	0.516 ± 0.372 (0.720) C:86% T:81%	pCi/L		12/01/23 15:33	
Total Radium Calculation	Total Radium	0.643 ± 0.930 (1.78)	pCi/L		12/07/23 16:19	
SM 2320B	Alkalinity, Total as CaCO3	381	mg/L	10.0	11/15/23 23:48	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	381	mg/L	10.0	11/15/23 23:48	
SM 2540C	Total Dissolved Solids	1040	mg/L	10.0	11/16/23 09:51	
SM 4500-H+B	pH at 25 Degrees C	7.8	Std. Units	0.10	11/28/23 15:56	H3
EPA 365.1	Phosphate as P04	1.1	mg/L	0.15	11/21/23 19:15	
SM 5310C	Total Organic Carbon	1.6	mg/L	1.0	11/20/23 23:35	
SM 5310C	Dissolved Organic Carbon	3.3	mg/L	1.0	11/21/23 20:15	
50359374002	**MW-44B**					
EPA 9056	Bromide	1.2	mg/L	0.050	11/22/23 12:14	
EPA 9056	Chloride	118	mg/L	2.5	11/22/23 12:31	
EPA 9056	Sulfate	166	mg/L	2.5	11/22/23 12:31	
EPA 6010	Boron	1390	ug/L	100	11/18/23 12:33	
EPA 6010	Calcium	198000	ug/L	1000	11/18/23 12:33	
EPA 6010	Iron	6000	ug/L	100	11/18/23 12:33	
EPA 6010	Magnesium	46100	ug/L	1000	11/18/23 12:33	
EPA 6010	Molybdenum	11.3	ug/L	10.0	11/18/23 12:33	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359374002	**MW-44B**					
EPA 6010	Potassium	2010	ug/L	1000	11/18/23 12:33	
EPA 6010	Silica	20300	ug/L	450	11/18/23 12:33	N2
EPA 6010	Sodium	42400	ug/L	1000	11/18/23 12:33	
EPA 6010	Boron, Dissolved	1360	ug/L	100	11/21/23 02:41	
EPA 6010	Iron, Dissolved	5810	ug/L	100	11/21/23 02:41	
EPA 6010	Magnesium, Dissolved	44000	ug/L	1000	11/21/23 02:41	
EPA 6010	Molybdenum, Dissolved	11.1	ug/L	10.0	11/21/23 02:41	
EPA 6010	Potassium, Dissolved	1990	ug/L	1000	11/21/23 02:41	
EPA 6020	Arsenic	3.5	ug/L	1.0	11/20/23 07:10	
EPA 6020	Barium	159	ug/L	1.0	11/20/23 07:10	
EPA 6020	Manganese	1570	ug/L	10.0	11/20/23 03:35	
EPA 6020	Manganese, Dissolved	1600	ug/L	20.0	11/22/23 03:47	
EPA 903.1	Radium-226	0.802 ± 0.691 (1.03) C:NA T:82%	pCi/L		12/05/23 11:56	
EPA 904.0	Radium-228	0.671 ± 0.368 (0.652) C:87% T:80%	pCi/L		12/01/23 15:33	
Total Radium Calculation	Total Radium	1.47 ± 1.06 (1.68)	pCi/L		12/07/23 16:19	
SM 2320B	Alkalinity, Total as CaCO3	444	mg/L	10.0	11/15/23 23:48	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	444	mg/L	10.0	11/15/23 23:48	
SM 2540C	Total Dissolved Solids	894	mg/L	10.0	11/16/23 09:51	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	11/28/23 15:56	H3
EPA 365.1	Phosphate as P04	0.89	mg/L	0.15	11/21/23 19:15	
SM 5310C	Total Organic Carbon	1.8	mg/L	1.0	11/21/23 11:06	
SM 5310C	Dissolved Organic Carbon	4.5	mg/L	1.0	11/21/23 20:26	
50359374003	**MW-44I**					
EPA 9056	Bromide	1.1	mg/L	0.050	11/22/23 12:47	
EPA 9056	Chloride	86.7	mg/L	2.5	11/22/23 13:02	
EPA 9056	Sulfate	242	mg/L	2.5	11/22/23 13:02	
EPA 6010	Boron	1080	ug/L	100	11/18/23 12:38	
EPA 6010	Calcium	210000	ug/L	2000	11/18/23 13:52	
EPA 6010	Iron	7600	ug/L	100	11/18/23 12:38	
EPA 6010	Magnesium	52000	ug/L	1000	11/18/23 12:38	
EPA 6010	Molybdenum	26.1	ug/L	10.0	11/18/23 12:38	
EPA 6010	Potassium	1860	ug/L	1000	11/18/23 12:38	
EPA 6010	Silica	20900	ug/L	450	11/18/23 12:38	N2
EPA 6010	Sodium	39700	ug/L	1000	11/18/23 12:38	
EPA 6010	Boron, Dissolved	1040	ug/L	100	11/21/23 02:42	
EPA 6010	Iron, Dissolved	7310	ug/L	100	11/21/23 02:42	
EPA 6010	Magnesium, Dissolved	49600	ug/L	1000	11/21/23 02:42	
EPA 6010	Molybdenum, Dissolved	24.3	ug/L	10.0	11/21/23 02:42	
EPA 6010	Potassium, Dissolved	1820	ug/L	1000	11/21/23 02:42	
EPA 6020	Aluminum	17.8	ug/L	10.0	11/21/23 02:54	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359374003	**MW-44I**					
EPA 6020	Arsenic	1.9	ug/L	1.0	11/20/23 07:13	
EPA 6020	Barium	63.9	ug/L	1.0	11/20/23 07:13	
EPA 6020	Manganese	889	ug/L	5.0	11/20/23 03:38	
EPA 6020	Manganese, Dissolved	924	ug/L	10.0	11/22/23 03:51	
EPA 903.1	Radium-226	0.269 ± 0.673 (1.22) C:NA T:86%	pCi/L		12/05/23 11:56	
EPA 904.0	Radium-228	0.550 ± 0.387 (0.743) C:84% T:76%	pCi/L		12/01/23 15:33	
Total Radium Calculation	Total Radium	0.819 ± 1.06 (1.96)	pCi/L		12/07/23 16:19	
SM 2320B	Alkalinity, Total as CaCO3	442	mg/L	10.0	11/15/23 23:48	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	432	mg/L	10.0	11/15/23 23:48	
SM 2320B	Alkalinity,Carbonate (CaCO3)	10.4	mg/L	10.0	11/15/23 23:48	
SM 2540C	Total Dissolved Solids	924	mg/L	20.0	11/16/23 09:51	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	11/28/23 15:57	H3
EPA 365.1	Phosphate as P04	1.3	mg/L	0.15	11/21/23 19:16	
SM 5310C	Total Organic Carbon	1.5	mg/L	1.0	11/21/23 13:31	
SM 5310C	Dissolved Organic Carbon	3.5	mg/L	1.0	11/21/23 21:00	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

Sample: MW-44A **Lab ID: 50359374001** Collected: 11/09/23 13:50 Received: 11/10/23 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.51**	mg/L	0.050	0.0090	1		11/22/23 11:27	24959-67-9	
Chloride	**64.1**	mg/L	2.5	0.67	10		11/22/23 11:42	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/22/23 11:27	16984-48-8	
Sulfate	**412**	mg/L	2.5	1.9	10		11/22/23 11:42	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**1050**	ug/L	100	11.4	1	11/17/23 08:32	11/18/23 12:32	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/17/23 08:32	11/18/23 12:32	7440-43-9	
Calcium	**239000**	ug/L	2000	113	2	11/17/23 08:32	11/18/23 13:50	7440-70-2	
Iron	**7870**	ug/L	100	18.1	1	11/17/23 08:32	11/18/23 12:32	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/17/23 08:32	11/18/23 12:32	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/17/23 08:32	11/18/23 12:32	7439-93-2	
Magnesium	**50500**	ug/L	1000	32.8	1	11/17/23 08:32	11/18/23 12:32	7439-95-4	
Molybdenum	**64.3**	ug/L	10.0	1.1	1	11/17/23 08:32	11/18/23 12:32	7439-98-7	
Potassium	**2620**	ug/L	1000	120	1	11/17/23 08:32	11/18/23 12:32	7440-09-7	
Silica	**19400**	ug/L	450		1	11/17/23 08:32	11/18/23 12:32	7631-86-9	N2
Sodium	**30200**	ug/L	1000	48.2	1	11/17/23 08:32	11/18/23 12:32	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1010**	ug/L	100	6.2	1	11/20/23 16:14	11/21/23 02:34	7440-42-8	
Iron, Dissolved	**7710**	ug/L	100	30.0	1	11/20/23 16:14	11/21/23 02:34	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/20/23 16:14	11/21/23 02:34	7439-93-2	
Magnesium, Dissolved	**48600**	ug/L	1000	33.6	1	11/20/23 16:14	11/21/23 02:34	7439-95-4	
Molybdenum, Dissolved	**60.6**	ug/L	10.0	0.78	1	11/20/23 16:14	11/21/23 02:34	7439-98-7	
Potassium, Dissolved	**2560**	ug/L	1000	97.8	1	11/20/23 16:14	11/21/23 02:34	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**24.7**	ug/L	10.0	4.4	1	11/18/23 10:16	11/21/23 02:47	7429-90-5	
Arsenic	**2.9**	ug/L	1.0	0.064	1	11/18/23 10:16	11/20/23 07:06	7440-38-2	
Barium	**32.8**	ug/L	1.0	0.067	1	11/18/23 10:16	11/20/23 07:06	7440-39-3	
Cobalt	ND	ug/L	1.0	0.024	1	11/18/23 10:16	11/20/23 07:06	7440-48-4	
Manganese	**803**	ug/L	5.0	0.22	5	11/18/23 10:16	11/20/23 03:32	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	11/18/23 10:16	11/20/23 07:06	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/20/23 02:07	11/21/23 09:48	7429-90-5	
Manganese, Dissolved	**819**	ug/L	10.0	1.8	10	11/20/23 02:07	11/22/23 03:43	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

Sample: MW-44A **Lab ID: 50359374001** Collected: 11/09/23 13:50 Received: 11/10/23 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**381**	mg/L	10.0	10.0	1		11/15/23 23:48		
Alkalinity,Bicarbonate (CaCO3)	**381**	mg/L	10.0	10.0	1		11/15/23 23:48		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/15/23 23:48		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1040**	mg/L	10.0	10.0	1		11/16/23 09:51		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.8**	Std. Units	0.10	0.10	1		11/28/23 15:56		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 15:56	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/16/23 12:23	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/11/23 00:25	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/11/23 00:25	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**1.1**	mg/L	0.15	0.15	1	11/20/23 13:00	11/21/23 19:15		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.6**	mg/L	1.0	0.24	1		11/20/23 23:35	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.3**	mg/L	1.0	0.24	1		11/21/23 20:15		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

Sample: MW-44B **Lab ID: 50359374002** Collected: 11/09/23 09:40 Received: 11/10/23 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**1.2**	mg/L	0.050	0.0090	1		11/22/23 12:14	24959-67-9	
Chloride	**118**	mg/L	2.5	0.67	10		11/22/23 12:31	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/22/23 12:14	16984-48-8	
Sulfate	**166**	mg/L	2.5	1.9	10		11/22/23 12:31	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**1390**	ug/L	100	11.4	1	11/17/23 08:32	11/18/23 12:33	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/17/23 08:32	11/18/23 12:33	7440-43-9	
Calcium	**198000**	ug/L	1000	56.7	1	11/17/23 08:32	11/18/23 12:33	7440-70-2	
Iron	**6000**	ug/L	100	18.1	1	11/17/23 08:32	11/18/23 12:33	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/17/23 08:32	11/18/23 12:33	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/17/23 08:32	11/18/23 12:33	7439-93-2	
Magnesium	**46100**	ug/L	1000	32.8	1	11/17/23 08:32	11/18/23 12:33	7439-95-4	
Molybdenum	**11.3**	ug/L	10.0	1.1	1	11/17/23 08:32	11/18/23 12:33	7439-98-7	
Potassium	**2010**	ug/L	1000	120	1	11/17/23 08:32	11/18/23 12:33	7440-09-7	
Silica	**20300**	ug/L	450		1	11/17/23 08:32	11/18/23 12:33	7631-86-9	N2
Sodium	**42400**	ug/L	1000	48.2	1	11/17/23 08:32	11/18/23 12:33	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1360**	ug/L	100	6.2	1	11/20/23 16:14	11/21/23 02:41	7440-42-8	
Iron, Dissolved	**5810**	ug/L	100	30.0	1	11/20/23 16:14	11/21/23 02:41	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/20/23 16:14	11/21/23 02:41	7439-93-2	
Magnesium, Dissolved	**44000**	ug/L	1000	33.6	1	11/20/23 16:14	11/21/23 02:41	7439-95-4	
Molybdenum, Dissolved	**11.1**	ug/L	10.0	0.78	1	11/20/23 16:14	11/21/23 02:41	7439-98-7	
Potassium, Dissolved	**1990**	ug/L	1000	97.8	1	11/20/23 16:14	11/21/23 02:41	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	4.4	1	11/18/23 10:16	11/21/23 02:51	7429-90-5	
Arsenic	**3.5**	ug/L	1.0	0.064	1	11/18/23 10:16	11/20/23 07:10	7440-38-2	
Barium	**159**	ug/L	1.0	0.067	1	11/18/23 10:16	11/20/23 07:10	7440-39-3	
Cobalt	ND	ug/L	1.0	0.024	1	11/18/23 10:16	11/20/23 07:10	7440-48-4	
Manganese	**1570**	ug/L	10.0	0.43	10	11/18/23 10:16	11/20/23 03:35	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	11/18/23 10:16	11/20/23 07:10	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/20/23 02:07	11/21/23 09:52	7429-90-5	
Manganese, Dissolved	**1600**	ug/L	20.0	3.6	20	11/20/23 02:07	11/22/23 03:47	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

Sample: MW-44B **Lab ID: 50359374002** Collected: 11/09/23 09:40 Received: 11/10/23 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**444**	mg/L	10.0	10.0	1		11/15/23 23:48		
Alkalinity,Bicarbonate (CaCO3)	**444**	mg/L	10.0	10.0	1		11/15/23 23:48		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/15/23 23:48		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**894**	mg/L	10.0	10.0	1		11/16/23 09:51		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		11/28/23 15:56		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 15:56	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/16/23 12:21	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/11/23 00:12	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/11/23 00:12	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.89**	mg/L	0.15	0.15	1	11/20/23 13:00	11/21/23 19:15		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.8**	mg/L	1.0	0.24	1		11/21/23 11:06	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**4.5**	mg/L	1.0	0.24	1		11/21/23 20:26		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

Sample: MW-44I **Lab ID: 50359374003** Collected: 11/09/23 12:12 Received: 11/10/23 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**1.1**	mg/L	0.050	0.0090	1		11/22/23 12:47	24959-67-9	
Chloride	**86.7**	mg/L	2.5	0.67	10		11/22/23 13:02	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/22/23 12:47	16984-48-8	
Sulfate	**242**	mg/L	2.5	1.9	10		11/22/23 13:02	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**1080**	ug/L	100	11.4	1	11/17/23 08:32	11/18/23 12:38	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/17/23 08:32	11/18/23 12:38	7440-43-9	
Calcium	**210000**	ug/L	2000	113	2	11/17/23 08:32	11/18/23 13:52	7440-70-2	
Iron	**7600**	ug/L	100	18.1	1	11/17/23 08:32	11/18/23 12:38	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/17/23 08:32	11/18/23 12:38	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/17/23 08:32	11/18/23 12:38	7439-93-2	
Magnesium	**52000**	ug/L	1000	32.8	1	11/17/23 08:32	11/18/23 12:38	7439-95-4	
Molybdenum	**26.1**	ug/L	10.0	1.1	1	11/17/23 08:32	11/18/23 12:38	7439-98-7	
Potassium	**1860**	ug/L	1000	120	1	11/17/23 08:32	11/18/23 12:38	7440-09-7	
Silica	**20900**	ug/L	450		1	11/17/23 08:32	11/18/23 12:38	7631-86-9	N2
Sodium	**39700**	ug/L	1000	48.2	1	11/17/23 08:32	11/18/23 12:38	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1040**	ug/L	100	6.2	1	11/20/23 16:14	11/21/23 02:42	7440-42-8	
Iron, Dissolved	**7310**	ug/L	100	30.0	1	11/20/23 16:14	11/21/23 02:42	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/20/23 16:14	11/21/23 02:42	7439-93-2	
Magnesium, Dissolved	**49600**	ug/L	1000	33.6	1	11/20/23 16:14	11/21/23 02:42	7439-95-4	
Molybdenum, Dissolved	**24.3**	ug/L	10.0	0.78	1	11/20/23 16:14	11/21/23 02:42	7439-98-7	
Potassium, Dissolved	**1820**	ug/L	1000	97.8	1	11/20/23 16:14	11/21/23 02:42	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**17.8**	ug/L	10.0	4.4	1	11/18/23 10:16	11/21/23 02:54	7429-90-5	
Arsenic	**1.9**	ug/L	1.0	0.064	1	11/18/23 10:16	11/20/23 07:13	7440-38-2	
Barium	**63.9**	ug/L	1.0	0.067	1	11/18/23 10:16	11/20/23 07:13	7440-39-3	
Cobalt	ND	ug/L	1.0	0.024	1	11/18/23 10:16	11/20/23 07:13	7440-48-4	
Manganese	**889**	ug/L	5.0	0.22	5	11/18/23 10:16	11/20/23 03:38	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	11/18/23 10:16	11/20/23 07:13	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/20/23 02:07	11/21/23 09:56	7429-90-5	
Manganese, Dissolved	**924**	ug/L	10.0	1.8	10	11/20/23 02:07	11/22/23 03:51	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

Sample: MW-44I **Lab ID: 50359374003** Collected: 11/09/23 12:12 Received: 11/10/23 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**442**	mg/L	10.0	10.0	1		11/15/23 23:48		
Alkalinity,Bicarbonate (CaCO3)	**432**	mg/L	10.0	10.0	1		11/15/23 23:48		
Alkalinity,Carbonate (CaCO3)	**10.4**	mg/L	10.0	10.0	1		11/15/23 23:48		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**924**	mg/L	20.0	20.0	1		11/16/23 09:51		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		11/28/23 15:57		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 15:56	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/16/23 12:23	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/11/23 00:23	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/11/23 00:23	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**1.3**	mg/L	0.15	0.15	1	11/20/23 13:00	11/21/23 19:16		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.5**	mg/L	1.0	0.24	1		11/21/23 13:31	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.5**	mg/L	1.0	0.24	1		11/21/23 21:00		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

QC Batch: 763720
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359374001, 50359374002, 50359374003

METHOD BLANK: 3500895 Matrix: Water
Associated Lab Samples: 50359374001, 50359374002, 50359374003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	11/22/23 10:56	
Chloride	mg/L	ND	0.25	0.067	11/22/23 10:56	
Fluoride	mg/L	ND	0.10	0.017	11/22/23 10:56	
Sulfate	mg/L	ND	0.25	0.19	11/22/23 10:56	

LABORATORY CONTROL SAMPLE: 3500896

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.98	98	80-120	
Chloride	mg/L	2.5	2.4	95	80-120	
Fluoride	mg/L	1	0.99	99	80-120	
Sulfate	mg/L	5	4.7	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3500897 3500898

Parameter	Units	50359387004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	0.28	1	1	1.2	1.2	93	93	80-120	0	15	
Chloride	mg/L	31.6	25	25	54.6	54.5	92	92	80-120	0	15	
Fluoride	mg/L	ND	1	1	1.1	1.1	97	98	80-120	0	15	
Sulfate	mg/L	773	500	500	1220	1220	89	90	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

QC Batch: 762715
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359374001, 50359374002, 50359374003

METHOD BLANK: 3495966 Matrix: Water
Associated Lab Samples: 50359374001, 50359374002, 50359374003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	11.4	11/18/23 12:16	
Cadmium	ug/L	ND	2.0	0.74	11/18/23 12:16	
Calcium	ug/L	ND	1000	56.7	11/18/23 12:16	
Iron	ug/L	ND	100	18.1	11/18/23 12:16	
Lead	ug/L	ND	10.0	4.0	11/18/23 12:16	
Lithium	ug/L	ND	20.0	5.1	11/18/23 12:16	
Magnesium	ug/L	ND	1000	32.8	11/18/23 12:16	
Molybdenum	ug/L	ND	10.0	1.1	11/18/23 12:16	
Potassium	ug/L	ND	1000	120	11/18/23 12:16	
Silica	ug/L	ND	450		11/18/23 12:16	N2
Sodium	ug/L	ND	1000	48.2	11/18/23 12:16	

LABORATORY CONTROL SAMPLE: 3495967

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	1010	101	80-120	
Cadmium	ug/L	1000	966	97	80-120	
Calcium	ug/L	10000	10000	100	80-120	
Iron	ug/L	10000	9920	99	80-120	
Lead	ug/L	1000	938	94	80-120	
Lithium	ug/L	1000	994	99	80-120	
Magnesium	ug/L	10000	9930	99	80-120	
Molybdenum	ug/L	1000	1010	101	80-120	
Potassium	ug/L	10000	9580	96	80-120	
Silica	ug/L	10700	10600	99	80-120	N2
Sodium	ug/L	10000	9820	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495968 3495969

Parameter	Units	50359369004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	5530	1000	1000	6430	6500	89	97	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	957	971	96	97	75-125	1	20	
Calcium	ug/L	360000	10000	10000	357000	362000	-25	19	75-125	1	20	E,P6
Iron	ug/L	ND	10000	10000	9420	9630	94	96	75-125	2	20	
Lead	ug/L	ND	1000	1000	872	888	87	89	75-125	2	20	
Lithium	ug/L	ND	1000	1000	989	1000	98	99	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495968 3495969

Parameter	Units	50359369004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Magnesium	ug/L	40800	10000	10000	49000	49600	82	88	75-125	1	20	
Molybdenum	ug/L	65.5	1000	1000	1060	1080	100	101	75-125	2	20	
Potassium	ug/L	8910	10000	10000	18100	18500	92	96	75-125	2	20	
Silica	ug/L	13200	10700	10700	23300	23600	95	98	75-125	2	20	N2
Sodium	ug/L	23600	10000	10000	32600	32800	90	92	75-125	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495970 3495971

Parameter	Units	50359387004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	5500	1000	1000	6700	6640	120	114	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	982	993	98	99	75-125	1	20	
Calcium	ug/L	380000	10000	10000	391000	389000	111	95	75-125	0	20	
Iron	ug/L	ND	10000	10000	9800	9840	98	98	75-125	0	20	
Lead	ug/L	ND	1000	1000	900	910	90	91	75-125	1	20	
Lithium	ug/L	ND	1000	1000	1010	1020	100	101	75-125	1	20	
Magnesium	ug/L	40400	10000	10000	51100	50700	107	103	75-125	1	20	
Molybdenum	ug/L	65.6	1000	1000	1090	1100	103	104	75-125	1	20	
Potassium	ug/L	8960	10000	10000	18900	19000	99	100	75-125	0	20	
Silica	ug/L	13100	10700	10700	24300	24200	104	104	75-125	0	20	N2
Sodium	ug/L	23700	10000	10000	33900	33700	102	100	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

QC Batch: 763256
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359374001, 50359374002, 50359374003

METHOD BLANK: 3498418 Matrix: Water
Associated Lab Samples: 50359374001, 50359374002, 50359374003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	11/21/23 02:04	
Iron, Dissolved	ug/L	ND	100	30.0	11/21/23 02:04	
Lithium, Dissolved	ug/L	ND	20.0	6.8	11/21/23 02:04	
Magnesium, Dissolved	ug/L	ND	1000	33.6	11/21/23 02:04	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	11/21/23 02:04	
Potassium, Dissolved	ug/L	ND	1000	97.8	11/21/23 02:04	

LABORATORY CONTROL SAMPLE: 3498419

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	955	95	80-120	
Iron, Dissolved	ug/L	10000	9820	98	80-120	
Lithium, Dissolved	ug/L	1000	1030	103	80-120	
Magnesium, Dissolved	ug/L	10000	9500	95	80-120	
Molybdenum, Dissolved	ug/L	1000	1000	100	80-120	
Potassium, Dissolved	ug/L	10000	9770	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498420 3498421

Parameter	Units	50359366003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	<0.30 mg/L	1000	1000	1010	1040	96	98	75-125	3	20	
Iron, Dissolved	ug/L	1140	10000	10000	10800	11100	96	99	75-125	3	20	
Lithium, Dissolved	ug/L	<0.010 mg/L	1000	1000	1020	1050	101	104	75-125	3	20	
Magnesium, Dissolved	ug/L	10.7 mg/L	10000	10000	19600	20200	89	95	75-125	3	20	
Molybdenum, Dissolved	ug/L	<0.050 mg/L	1000	1000	991	1020	99	102	75-125	3	20	
Potassium, Dissolved	ug/L	2.3 mg/L	10000	10000	11800	12200	95	99	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

QC Batch: 763694
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359374001, 50359374002, 50359374003

METHOD BLANK: 3500698 Matrix: Water
Associated Lab Samples: 50359374001, 50359374002, 50359374003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	4.4	11/20/23 03:25	
Arsenic	ug/L	ND	1.0	0.064	11/20/23 03:25	
Barium	ug/L	ND	1.0	0.067	11/20/23 03:25	
Cobalt	ug/L	ND	1.0	0.024	11/20/23 03:25	
Manganese	ug/L	ND	1.0	0.043	11/20/23 03:25	
Selenium	ug/L	ND	1.0	0.23	11/20/23 03:25	

LABORATORY CONTROL SAMPLE: 3500699

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	422	105	80-120	
Arsenic	ug/L	40	38.0	95	80-120	
Barium	ug/L	40	38.4	96	80-120	
Cobalt	ug/L	40	40.4	101	80-120	
Manganese	ug/L	40	40.8	102	80-120	
Selenium	ug/L	40	39.5	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3500700 3500701

Parameter	Units	50359387004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	ND	400	400	378	383	93	94	75-125	1	20	
Arsenic	ug/L	ND	40	40	38.2	37.8	95	94	75-125	1	20	
Barium	ug/L	42.9	40	40	82.6	85.3	99	106	75-125	3	20	
Cobalt	ug/L	ND	40	40	38.1	38.8	93	95	75-125	2	20	
Manganese	ug/L	1680	40	40	1690	1710	24	84	75-125	1	20	P6
Selenium	ug/L	2.0	40	40	41.3	41.5	98	99	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

QC Batch: 763783
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359374001, 50359374002, 50359374003

METHOD BLANK: 3501276 Matrix: Water
Associated Lab Samples: 50359374001, 50359374002, 50359374003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.8	11/21/23 09:32	
Manganese, Dissolved	ug/L	ND	1.0	0.18	11/21/23 09:32	

LABORATORY CONTROL SAMPLE: 3501277

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	399	100	80-120	
Manganese, Dissolved	ug/L	40	41.6	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3501278 3501279

Parameter	Units	50359566001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	379	380	94	95	75-125	0	20	
Manganese, Dissolved	ug/L	77.1	40	40	115	116	94	97	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

QC Batch: 763222
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359374001, 50359374002, 50359374003

METHOD BLANK: 3498239 Matrix: Water
Associated Lab Samples: 50359374001, 50359374002, 50359374003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/15/23 23:48	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/15/23 23:48	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/15/23 23:48	

LABORATORY CONTROL SAMPLE: 3498240

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.2	98	90-110	

SAMPLE DUPLICATE: 3498241

Parameter	Units	50359348001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	223	228	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	223	228	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3498242

Parameter	Units	50359369004 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	267	273	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	267	273	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

QC Batch: 763077
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359374001, 50359374002, 50359374003

METHOD BLANK: 3497399 Matrix: Water
Associated Lab Samples: 50359374001, 50359374002, 50359374003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/16/23 09:42	

LABORATORY CONTROL SAMPLE: 3497400

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	295	98	80-120	

SAMPLE DUPLICATE: 3497401

Parameter	Units	50359369004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1600	1570	2	10	

SAMPLE DUPLICATE: 3497402

Parameter	Units	50359387002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2950	2920	1	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

QC Batch: 765044
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359374001, 50359374002, 50359374003

SAMPLE DUPLICATE: 3506067

Parameter	Units	50359359001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.1	8.2	1	2	H3

SAMPLE DUPLICATE: 3506068

Parameter	Units	50359387004 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.1	0	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

QC Batch: 762916
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359374001, 50359374002, 50359374003

METHOD BLANK: 3496645 Matrix: Water
Associated Lab Samples: 50359374001, 50359374002, 50359374003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/14/23 15:56	

LABORATORY CONTROL SAMPLE: 3496646

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.53	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3496647 3496648

Parameter	Units	50359369004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	0.14	0.5	0.5	0.54	0.54	78	79	90-110	0	20	M3

MATRIX SPIKE SAMPLE: 3496649

Parameter	Units	50359451001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.33	65	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

QC Batch: 763332
QC Batch Method: HACH 8146
Analysis Method: HACH 8146
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359374001, 50359374002, 50359374003

METHOD BLANK: 3498756 Matrix: Water
Associated Lab Samples: 50359374001, 50359374002, 50359374003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/16/23 12:20	H3,N2

LABORATORY CONTROL SAMPLE: 3498757

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	0.99	99	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498758 3498759

Parameter	Units	50359425001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	0.34	1	1	1.5	1.5	114	121	90-110	5	20	H3,M3, N2

MATRIX SPIKE SAMPLE: 3498760

Parameter	Units	50359451001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1.7	5	6.6	98	90-110	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

QC Batch: 762273
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359374001, 50359374002, 50359374003

METHOD BLANK: 3494306 Matrix: Water
Associated Lab Samples: 50359374001, 50359374002, 50359374003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/11/23 00:03	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/11/23 00:03	

LABORATORY CONTROL SAMPLE: 3494307

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	102	90-110	
Nitrogen, Nitrite	mg/L	1	1.1	106	90-110	

MATRIX SPIKE SAMPLE: 3494308

Parameter	Units	50359425007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.0	99	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.1	106	90-110	

MATRIX SPIKE SAMPLE: 3494309

Parameter	Units	50359369004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	4.3	5	9.6	105	90-110	
Nitrogen, Nitrite	mg/L	ND	5	5.3	105	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

QC Batch: 763916
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359374001, 50359374002, 50359374003

METHOD BLANK: 3501901 Matrix: Water
Associated Lab Samples: 50359374001, 50359374002, 50359374003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	11/21/23 19:12	

LABORATORY CONTROL SAMPLE: 3501902

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3501903 3501904

Parameter	Units	50359374003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	1.3			2.9	2.8				1		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

QC Batch: 763578
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359374001

METHOD BLANK: 3500151 Matrix: Water
Associated Lab Samples: 50359374001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	11/20/23 17:14	

LABORATORY CONTROL SAMPLE: 3500152

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.6	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3500153 3500154

Parameter	Units	50359321007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	1230 ug/L	10	10	11.0	11.1	98	99	80-120	1	20	

MATRIX SPIKE SAMPLE: 3500155

Parameter	Units	50359321008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1810 ug/L	10	11.7	98	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

QC Batch: 763580
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359374002, 50359374003

METHOD BLANK: 3500167 Matrix: Water
Associated Lab Samples: 50359374002, 50359374003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	11/21/23 04:13	

LABORATORY CONTROL SAMPLE: 3500168

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.6	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3500169 3500170

Parameter	Units	50359289001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	4.6	10	10	13.7	14.2	92	96	80-120	3	20	

MATRIX SPIKE SAMPLE: 3500171

Parameter	Units	50359289002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	4.6	10	14.3	97	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

QC Batch: 764233
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359374001, 50359374002

METHOD BLANK: 3502995 Matrix: Water
Associated Lab Samples: 50359374001, 50359374002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	11/21/23 14:35	

LABORATORY CONTROL SAMPLE: 3502996

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.6	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3502997 3502998

Parameter	Units	50359253005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.3	10	10	11.9	12.0	95	97	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503002 3503003

Parameter	Units	50359369004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.8	10	10	10.8	11.2	90	93	80-120	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

QC Batch: 764235
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359374003

METHOD BLANK: 3503004 Matrix: Water
Associated Lab Samples: 50359374003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	11/21/23 20:40	

LABORATORY CONTROL SAMPLE: 3503005

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503006 3503007

Parameter	Units	50359374003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	3.5	10	10	12.6	12.4	91	89	80-120	1	20	

MATRIX SPIKE SAMPLE: 3503008

Parameter	Units	50359425001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	4.4	10	14.0	96	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

Sample: MW-44A **Lab ID: 50359374001** Collected: 11/09/23 13:50 Received: 11/10/23 10:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.127 ± 0.558 (1.06) C:NA T:84%**	pCi/L	12/05/23 11:56	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.516 ± 0.372 (0.720) C:86% T:81%**	pCi/L	12/01/23 15:33	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.643 ± 0.930 (1.78)**	pCi/L	12/07/23 16:19	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

Sample: MW-44B **Lab ID: 50359374002** Collected: 11/09/23 09:40 Received: 11/10/23 10:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.802 ± 0.691 (1.03) C:NA T:82%**	pCi/L	12/05/23 11:56	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.671 ± 0.368 (0.652) C:87% T:80%**	pCi/L	12/01/23 15:33	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.47 ± 1.06 (1.68)**	pCi/L	12/07/23 16:19	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

Sample: MW-44I **Lab ID: 50359374003** Collected: 11/09/23 12:12 Received: 11/10/23 10:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.269 ± 0.673 (1.22) C:NA T:86%**	pCi/L	12/05/23 11:56	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.550 ± 0.387 (0.743) C:84% T:76%**	pCi/L	12/01/23 15:33	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.819 ± 1.06 (1.96)**	pCi/L	12/07/23 16:19	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

QC Batch: 630801
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359374001, 50359374002, 50359374003

METHOD BLANK: 3075653
Matrix: Water
Associated Lab Samples: 50359374001, 50359374002, 50359374003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.240 ± 0.376 (0.815) C:86% T:76%	pCi/L	12/01/23 15:30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

QC Batch: 630800
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359374001, 50359374002, 50359374003

METHOD BLANK: 3075652
Matrix: Water
Associated Lab Samples: 50359374001, 50359374002, 50359374003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.193 ± 0.268 (0.448) C:NA T:88%	pCi/L	12/05/23 11:44	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359374001	**MW-44A**	EPA 9056	763720		
50359374002	**MW-44B**	EPA 9056	763720		
50359374003	**MW-44I**	EPA 9056	763720		
50359374001	**MW-44A**	EPA 3010	762715	EPA 6010	763791
50359374002	**MW-44B**	EPA 3010	762715	EPA 6010	763791
50359374003	**MW-44I**	EPA 3010	762715	EPA 6010	763791
50359374001	**MW-44A**	EPA 3010	763256	EPA 6010	764147
50359374002	**MW-44B**	EPA 3010	763256	EPA 6010	764147
50359374003	**MW-44I**	EPA 3010	763256	EPA 6010	764147
50359374001	**MW-44A**	EPA 200.2	763694	EPA 6020	763808
50359374002	**MW-44B**	EPA 200.2	763694	EPA 6020	763808
50359374003	**MW-44I**	EPA 200.2	763694	EPA 6020	763808
50359374001	**MW-44A**	EPA 200.2	763783	EPA 6020	764101
50359374002	**MW-44B**	EPA 200.2	763783	EPA 6020	764101
50359374003	**MW-44I**	EPA 200.2	763783	EPA 6020	764101
50359374001	**MW-44A**	EPA 903.1	630800		
50359374002	**MW-44B**	EPA 903.1	630800		
50359374003	**MW-44I**	EPA 903.1	630800		
50359374001	**MW-44A**	EPA 904.0	630801		
50359374002	**MW-44B**	EPA 904.0	630801		
50359374003	**MW-44I**	EPA 904.0	630801		
50359374001	**MW-44A**	Total Radium Calculation	634630		
50359374002	**MW-44B**	Total Radium Calculation	634630		
50359374003	**MW-44I**	Total Radium Calculation	634630		
50359374001	**MW-44A**	SM 2320B	763222		
50359374002	**MW-44B**	SM 2320B	763222		
50359374003	**MW-44I**	SM 2320B	763222		
50359374001	**MW-44A**	SM 2540C	763077		
50359374002	**MW-44B**	SM 2540C	763077		
50359374003	**MW-44I**	SM 2540C	763077		
50359374001	**MW-44A**	SM 4500-H+B	765044		
50359374002	**MW-44B**	SM 4500-H+B	765044		
50359374003	**MW-44I**	SM 4500-H+B	765044		
50359374001	**MW-44A**	SM 4500-S2-D	762916		
50359374002	**MW-44B**	SM 4500-S2-D	762916		
50359374003	**MW-44I**	SM 4500-S2-D	762916		
50359374001	**MW-44A**	HACH 8146	763332		
50359374002	**MW-44B**	HACH 8146	763332		
50359374003	**MW-44I**	HACH 8146	763332		
50359374001	**MW-44A**	EPA 353.2	762273		
50359374002	**MW-44B**	EPA 353.2	762273		
50359374003	**MW-44I**	EPA 353.2	762273		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359374

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359374001	**MW-44A**	EPA 365.1	763916	EPA 365.1	764405
50359374002	**MW-44B**	EPA 365.1	763916	EPA 365.1	764405
50359374003	**MW-44I**	EPA 365.1	763916	EPA 365.1	764405
50359374001	**MW-44A**	SM 5310C	763578		
50359374002	**MW-44B**	SM 5310C	763580		
50359374003	**MW-44I**	SM 5310C	763580		
50359374001	**MW-44A**	SM 5310C	764233		
50359374002	**MW-44B**	SM 5310C	764233		
50359374003	**MW-44I**	SM 5310C	764235		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO# : 50359374

50359374

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section C Invoice Information:		Section B Required Project Information:	
Company:	Atlas Indianapolis	Report To:	Mark Breting
Address:	7988 Centerpoint Drive Suite 100 Indianapolis, IN 46256	Copy To:	
Email:	mark.breting@oneatlas.com	Purchase Order #:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P4R4 Nov 2023
Requested Due Date:		Project #:	
Attention:	Accounts Payable - Paula Sedam		
Company Name:	Atlas Indianapolis		
Address:			
Pace Quote:			
Pace Project Manager:	Will Statz		
Pace Profile #:	10498/53		

Regulatory Agency	
State / Location	
	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO2, NO3 Wet	(Br, Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity*, Ferrous Iron, pH	TOC by 5310C	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum			Residual Chlorine (Y/N)	
	MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																	Requested Analysis Filtered (Y/N)				Y			Y								
1	MW-44A	WT	G	11/9	~~13:15~~ 12:15	11/9	13:50		11	3	3	4		1					✓	✓✓	✓	✓	✓	✓	✓✓	✓	✓						
2	MW-44B	WT	G	11/9	9:10	11/9	9:40		11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓✓	✓	✓						
3	MW-44I	WT	G	11/9	11:45	11/9	12:12		11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓✓	✓	✓						
4	~~MW-44A~~	WT	G	11/9	10:50	11/9	11:20		11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓✓	✓	✓						
5	~~MW-44B~~	WT	G	11/9	13:45	11/9	14:00		11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓✓	✓	✓						
6	~~MW-44I~~	WT	G	11/9	15:15	11/9	15:35		11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓✓	✓	✓						
7																																
8																																
9																																
10																																
11																																
12																																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
* Metals: 6010 (B, Cd, Fe, Pb, Mo, Ca, Mg, Na, K, Li, sila) (11)	Carsen Clouser	11/9/23	1500	Jay Williams	11-10	800 AM				
6020 (Al, Mn, Co, As, Se, Ba) (6)	Jay Williams	11-10	1030 AM		11-10	1030	1.1	4	4	4
** Dissolved FF 6010 (B, Fe, Mo, Mg, K, Li) (6) FF 6020 (Al, Mn) (2)										
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE				TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Carsen Clouser						
SIGNATURE of SAMPLER:	Carsen Clouser	DATE Signed:	11/9/23				

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 11-10-23 1105 CRR

1. **Courier:** ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H
4. **Cooler Temperature(s):** 1.1/1.1 | 0.8/0.8 | | | **(Initial/Corrected)** RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)
5. **Packing Material:** ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		—	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	—		
Short Hold Time Analysis (48 hours or less)? **Analysis:** NO2/NO3	—					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 1300			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			—
Rush TAT Requested (4 days or less):		—	Residual Chlorine Check (Total/Amenable/Free Cyanide)			—
Custody Signatures Present?	—		Headspace Wisconsin Sulfide?			—
				Present	Absent	No VOA Vials Sent
Containers Intact?:	—		Headspace in VOA Vials (>6mm): See Containter Count form for details			—
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID		—	Trip Blank Present?		—	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			—

COMMENTS: Start time used instead of end time on all Containers (11-10-23 CRR)

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1												1	1			2	1	2	1	1	1		1					WT	✓	✓		✓
2												1	1			2	1	2	1	1	1		1					WT	✓	✓		✓
3												1	1			2	1	2	1	1	1		1					WT	✓	✓		✓
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 12, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359387

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 10, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359387

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359387

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50359387001	**AP-4A**	Water	11/09/23 12:10	11/10/23 10:30
50359387002	**DUP-4**	Water	11/09/23 08:00	11/10/23 10:30
50359387003	**AP-4I**	Water	11/09/23 14:20	11/10/23 10:30
50359387004	**AP-5**	Water	11/09/23 17:00	11/10/23 10:30
50359387005	**AP-5 MS**	Water	11/09/23 17:00	11/10/23 10:30
50359387006	**AP-5 MSD**	Water	11/09/23 17:00	11/10/23 10:30

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359387

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50359387001	**AP-4A**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	DMT	5	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50359387002	**DUP-4**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	DMT	5	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50359387003	**AP-4I**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	DMT	5	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50359387004	**AP-5**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	DMT	5	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50359387005	**AP-5 MS**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
50359387006	**AP-5 MSD**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359387

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359387

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359387001	**AP-4A**					
EPA 9056	Chloride	166	mg/L	2.5	11/22/23 14:23	
EPA 9056	Sulfate	1960	mg/L	25.0	11/22/23 14:39	
EPA 6010	Boron	24600	ug/L	100	11/18/23 12:39	
EPA 6010	Calcium	650000	ug/L	5000	11/18/23 13:53	
EPA 6010	Lithium	40.3	ug/L	20.0	11/18/23 12:39	
EPA 6010	Molybdenum	252	ug/L	10.0	11/18/23 12:39	
EPA 6020	Barium	28.4	ug/L	1.0	11/20/23 08:42	
EPA 903.1	Radium-226	0.218 ± 0.339 (0.587) C:NA T:84%	pCi/L		12/08/23 13:35	
EPA 904.0	Radium-228	0.367 ± 0.349 (0.709) C:79% T:84%	pCi/L		11/30/23 15:17	
Total Radium Calculation	Total Radium	0.585 ± 0.688 (1.30)	pCi/L		12/08/23 15:57	
SM 2540C	Total Dissolved Solids	2900	mg/L	20.0	11/16/23 09:53	
SM 4500-H+B	pH at 25 Degrees C	6.9	Std. Units	0.10	11/28/23 15:57	H3
50359387002	**DUP-4**					
EPA 9056	Chloride	170	mg/L	2.5	11/22/23 15:13	
EPA 9056	Sulfate	1700	mg/L	25.0	11/22/23 15:30	
EPA 6010	Boron	24400	ug/L	100	11/18/23 12:41	
EPA 6010	Calcium	648000	ug/L	5000	11/18/23 13:55	
EPA 6010	Lithium	42.8	ug/L	20.0	11/18/23 12:41	
EPA 6010	Molybdenum	249	ug/L	10.0	11/18/23 12:41	
EPA 6020	Barium	28.2	ug/L	1.0	11/20/23 08:46	
EPA 903.1	Radium-226	0.692 ± 0.548 (0.799) C:NA T:86%	pCi/L		12/08/23 13:35	
EPA 904.0	Radium-228	0.491 ± 0.337 (0.637) C:85% T:86%	pCi/L		11/30/23 15:17	
Total Radium Calculation	Total Radium	1.18 ± 0.885 (1.44)	pCi/L		12/08/23 15:57	
SM 2540C	Total Dissolved Solids	2950	mg/L	20.0	11/16/23 09:53	
SM 4500-H+B	pH at 25 Degrees C	6.9	Std. Units	0.10	11/28/23 15:58	H3
50359387003	**AP-4I**					
EPA 9056	Chloride	90.0	mg/L	2.5	11/22/23 16:04	
EPA 9056	Fluoride	0.16	mg/L	0.10	11/22/23 15:47	
EPA 9056	Sulfate	1620	mg/L	25.0	11/22/23 16:21	
EPA 6010	Boron	9650	ug/L	100	11/18/23 12:42	
EPA 6010	Calcium	642000	ug/L	5000	11/18/23 13:56	
EPA 6010	Molybdenum	78.1	ug/L	10.0	11/18/23 12:42	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359387

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359387003	**AP-4I**					
EPA 6020	Barium	22.4	ug/L	1.0	11/20/23 08:49	
EPA 6020	Cobalt	3.0	ug/L	1.0	11/20/23 08:49	
EPA 903.1	Radium-226	0.533 ± 0.494 (0.752) C:NA T:88%	pCi/L		12/08/23 13:35	
EPA 904.0	Radium-228	0.152 ± 0.326 (0.721) C:81% T:88%	pCi/L		11/30/23 15:17	
Total Radium Calculation	Total Radium	0.685 ± 0.820 (1.47)	pCi/L		12/08/23 15:57	
SM 2540C	Total Dissolved Solids	2710	mg/L	20.0	11/16/23 15:15	
SM 4500-H+B	pH at 25 Degrees C	7.0	Std. Units	0.10	11/28/23 15:58	H3
50359387004	**AP-5**					
EPA 9056	Chloride	31.6	mg/L	2.5	11/27/23 14:29	
EPA 9056	Sulfate	773	mg/L	25.0	11/27/23 14:46	
EPA 6010	Boron	5500	ug/L	100	11/18/23 12:44	
EPA 6010	Calcium	380000	ug/L	3000	11/18/23 13:58	
EPA 6010	Molybdenum	65.6	ug/L	10.0	11/18/23 12:44	
EPA 6020	Barium	42.9	ug/L	1.0	11/20/23 09:00	
EPA 6020	Selenium	2.0	ug/L	1.0	11/20/23 09:00	
EPA 903.1	Radium-226	0.160 ± 0.313 (0.573) C:NA T:86%	pCi/L		12/08/23 13:35	
EPA 904.0	Radium-228	0.683 ± 0.391 (0.712) C:81% T:86%	pCi/L		11/30/23 15:17	
Total Radium Calculation	Total Radium	0.843 ± 0.704 (1.29)	pCi/L		12/08/23 15:57	
SM 2540C	Total Dissolved Solids	1620	mg/L	20.0	11/16/23 15:15	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	11/28/23 15:59	H3
50359387005	**AP-5 MS**					
EPA 903.1	Radium-226	93.25 %REC ± NA (NA) C:NA T:NA	pCi/L		12/08/23 13:35	
EPA 904.0	Radium-228	96.86 %REC ± NA (NA) C:NA T:NA	pCi/L		11/30/23 15:17	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359387

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359387006	**AP-5 MSD**					
EPA 903.1	Radium-226	97.29 %REC 4.24RPD ± NA (NA) C:NA T:NA	pCi/L		12/08/23 13:35	
EPA 904.0	Radium-228	72.19 %REC 29.19RPD ± NA (NA) C:NA T:NA	pCi/L		11/30/23 15:17	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359387

Sample: AP-4A **Lab ID: 50359387001** Collected: 11/09/23 12:10 Received: 11/10/23 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**166**	mg/L	2.5	0.67	10		11/22/23 14:23	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/22/23 14:06	16984-48-8	
Sulfate	**1960**	mg/L	25.0	19.0	100		11/22/23 14:39	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**24600**	ug/L	100	11.4	1	11/17/23 08:32	11/18/23 12:39	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/17/23 08:32	11/18/23 12:39	7440-43-9	
Calcium	**650000**	ug/L	5000	284	5	11/17/23 08:32	11/18/23 13:53	7440-70-2	
Lead	ND	ug/L	10.0	4.0	1	11/17/23 08:32	11/18/23 12:39	7439-92-1	
Lithium	**40.3**	ug/L	20.0	5.1	1	11/17/23 08:32	11/18/23 12:39	7439-93-2	
Molybdenum	**252**	ug/L	10.0	1.1	1	11/17/23 08:32	11/18/23 12:39	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Arsenic	ND	ug/L	1.0	0.064	1	11/18/23 10:16	11/20/23 08:42	7440-38-2	
Barium	**28.4**	ug/L	1.0	0.067	1	11/18/23 10:16	11/20/23 08:42	7440-39-3	
Cobalt	ND	ug/L	1.0	0.024	1	11/18/23 10:16	11/20/23 08:42	7440-48-4	
Selenium	ND	ug/L	1.0	0.23	1	11/18/23 10:16	11/20/23 08:42	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	11/18/23 10:16	11/20/23 08:42	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2900**	mg/L	20.0	20.0	1		11/16/23 09:53		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.9**	Std. Units	0.10	0.10	1		11/28/23 15:57		H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359387

Sample: DUP-4 **Lab ID: 50359387002** Collected: 11/09/23 08:00 Received: 11/10/23 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**170**	mg/L	2.5	0.67	10		11/22/23 15:13	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/22/23 14:56	16984-48-8	
Sulfate	**1700**	mg/L	25.0	19.0	100		11/22/23 15:30	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**24400**	ug/L	100	11.4	1	11/17/23 08:32	11/18/23 12:41	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/17/23 08:32	11/18/23 12:41	7440-43-9	
Calcium	**648000**	ug/L	5000	284	5	11/17/23 08:32	11/18/23 13:55	7440-70-2	
Lead	ND	ug/L	10.0	4.0	1	11/17/23 08:32	11/18/23 12:41	7439-92-1	
Lithium	**42.8**	ug/L	20.0	5.1	1	11/17/23 08:32	11/18/23 12:41	7439-93-2	
Molybdenum	**249**	ug/L	10.0	1.1	1	11/17/23 08:32	11/18/23 12:41	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Arsenic	ND	ug/L	1.0	0.064	1	11/18/23 10:16	11/20/23 08:46	7440-38-2	
Barium	**28.2**	ug/L	1.0	0.067	1	11/18/23 10:16	11/20/23 08:46	7440-39-3	
Cobalt	ND	ug/L	1.0	0.024	1	11/18/23 10:16	11/20/23 08:46	7440-48-4	
Selenium	ND	ug/L	1.0	0.23	1	11/18/23 10:16	11/20/23 08:46	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	11/18/23 10:16	11/20/23 08:46	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2950**	mg/L	20.0	20.0	1		11/16/23 09:53		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.9**	Std. Units	0.10	0.10	1		11/28/23 15:58		H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359387

Sample: AP-4I **Lab ID: 50359387003** Collected: 11/09/23 14:20 Received: 11/10/23 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**90.0**	mg/L	2.5	0.67	10		11/22/23 16:04	16887-00-6	
Fluoride	**0.16**	mg/L	0.10	0.017	1		11/22/23 15:47	16984-48-8	
Sulfate	**1620**	mg/L	25.0	19.0	100		11/22/23 16:21	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**9650**	ug/L	100	11.4	1	11/17/23 08:32	11/18/23 12:42	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/17/23 08:32	11/18/23 12:42	7440-43-9	
Calcium	**642000**	ug/L	5000	284	5	11/17/23 08:32	11/18/23 13:56	7440-70-2	
Lead	ND	ug/L	10.0	4.0	1	11/17/23 08:32	11/18/23 12:42	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/17/23 08:32	11/18/23 12:42	7439-93-2	
Molybdenum	**78.1**	ug/L	10.0	1.1	1	11/17/23 08:32	11/18/23 12:42	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Arsenic	ND	ug/L	1.0	0.064	1	11/18/23 10:16	11/20/23 08:49	7440-38-2	
Barium	**22.4**	ug/L	1.0	0.067	1	11/18/23 10:16	11/20/23 08:49	7440-39-3	
Cobalt	**3.0**	ug/L	1.0	0.024	1	11/18/23 10:16	11/20/23 08:49	7440-48-4	
Selenium	ND	ug/L	1.0	0.23	1	11/18/23 10:16	11/20/23 08:49	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	11/18/23 10:16	11/20/23 08:49	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2710**	mg/L	20.0	20.0	1		11/16/23 15:15		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.0**	Std. Units	0.10	0.10	1		11/28/23 15:58		H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359387

Sample: AP-5 **Lab ID: 50359387004** Collected: 11/09/23 17:00 Received: 11/10/23 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**31.6**	mg/L	2.5	0.67	10		11/27/23 14:29	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/27/23 14:12	16984-48-8	
Sulfate	**773**	mg/L	25.0	19.0	100		11/27/23 14:46	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**5500**	ug/L	100	11.4	1	11/17/23 08:32	11/18/23 12:44	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/17/23 08:32	11/18/23 12:44	7440-43-9	
Calcium	**380000**	ug/L	3000	170	3	11/17/23 08:32	11/18/23 13:58	7440-70-2	
Lead	ND	ug/L	10.0	4.0	1	11/17/23 08:32	11/18/23 12:44	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/17/23 08:32	11/18/23 12:44	7439-93-2	
Molybdenum	**65.6**	ug/L	10.0	1.1	1	11/17/23 08:32	11/18/23 12:44	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Arsenic	ND	ug/L	1.0	0.064	1	11/18/23 10:16	11/20/23 09:00	7440-38-2	
Barium	**42.9**	ug/L	1.0	0.067	1	11/18/23 10:16	11/20/23 09:00	7440-39-3	
Cobalt	ND	ug/L	1.0	0.024	1	11/18/23 10:16	11/20/23 09:00	7440-48-4	
Selenium	**2.0**	ug/L	1.0	0.23	1	11/18/23 10:16	11/20/23 09:00	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	11/18/23 10:16	11/20/23 09:00	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1620**	mg/L	20.0	20.0	1		11/16/23 15:15		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		11/28/23 15:59		H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359387

QC Batch: 763720
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359387001, 50359387002, 50359387003, 50359387004

METHOD BLANK: 3500895 Matrix: Water
Associated Lab Samples: 50359387001, 50359387002, 50359387003, 50359387004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	11/22/23 10:56	
Fluoride	mg/L	ND	0.10	0.017	11/22/23 10:56	
Sulfate	mg/L	ND	0.25	0.19	11/22/23 10:56	

LABORATORY CONTROL SAMPLE: 3500896

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	95	80-120	
Fluoride	mg/L	1	0.99	99	80-120	
Sulfate	mg/L	5	4.7	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3500897 3500898

Parameter	Units	50359387004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	31.6	25	25	54.6	54.5	92	92	80-120	0	15	
Fluoride	mg/L	ND	1	1	1.1	1.1	97	98	80-120	0	15	
Sulfate	mg/L	773	500	500	1220	1220	89	90	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359387

QC Batch: 762715
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359387001, 50359387002, 50359387003, 50359387004

METHOD BLANK: 3495966 Matrix: Water
Associated Lab Samples: 50359387001, 50359387002, 50359387003, 50359387004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	11.4	11/18/23 12:16	
Cadmium	ug/L	ND	2.0	0.74	11/18/23 12:16	
Calcium	ug/L	ND	1000	56.7	11/18/23 12:16	
Lead	ug/L	ND	10.0	4.0	11/18/23 12:16	
Lithium	ug/L	ND	20.0	5.1	11/18/23 12:16	
Molybdenum	ug/L	ND	10.0	1.1	11/18/23 12:16	

LABORATORY CONTROL SAMPLE: 3495967

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	1010	101	80-120	
Cadmium	ug/L	1000	966	97	80-120	
Calcium	ug/L	10000	10000	100	80-120	
Lead	ug/L	1000	938	94	80-120	
Lithium	ug/L	1000	994	99	80-120	
Molybdenum	ug/L	1000	1010	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495968 3495969

Parameter	Units	50359369004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	5530	1000	1000	6430	6500	89	97	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	957	971	96	97	75-125	1	20	
Calcium	ug/L	360000	10000	10000	357000	362000	-25	19	75-125	1	20	E,P6
Lead	ug/L	ND	1000	1000	872	888	87	89	75-125	2	20	
Lithium	ug/L	ND	1000	1000	989	1000	98	99	75-125	1	20	
Molybdenum	ug/L	65.5	1000	1000	1060	1080	100	101	75-125	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495970 3495971

Parameter	Units	50359387004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	5500	1000	1000	6700	6640	120	114	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	982	993	98	99	75-125	1	20	
Calcium	ug/L	380000	10000	10000	391000	389000	111	95	75-125	0	20	
Lead	ug/L	ND	1000	1000	900	910	90	91	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359387

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495970 3495971

Parameter	Units	50359387004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	ND	1000	1000	1010	1020	100	101	75-125	1	20	
Molybdenum	ug/L	65.6	1000	1000	1090	1100	103	104	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359387

QC Batch: 763694
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359387001, 50359387002, 50359387003, 50359387004

METHOD BLANK: 3500698 Matrix: Water
Associated Lab Samples: 50359387001, 50359387002, 50359387003, 50359387004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	ug/L	ND	1.0	0.064	11/20/23 03:25	
Barium	ug/L	ND	1.0	0.067	11/20/23 03:25	
Cobalt	ug/L	ND	1.0	0.024	11/20/23 03:25	
Selenium	ug/L	ND	1.0	0.23	11/20/23 03:25	
Thallium	ug/L	ND	1.0	0.042	11/20/23 03:25	

LABORATORY CONTROL SAMPLE: 3500699

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	40	38.0	95	80-120	
Barium	ug/L	40	38.4	96	80-120	
Cobalt	ug/L	40	40.4	101	80-120	
Selenium	ug/L	40	39.5	99	80-120	
Thallium	ug/L	40	41.6	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3500700 3500701

Parameter	Units	50359387004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	ND	40	40	38.2	37.8	95	94	75-125	1	20	
Barium	ug/L	42.9	40	40	82.6	85.3	99	106	75-125	3	20	
Cobalt	ug/L	ND	40	40	38.1	38.8	93	95	75-125	2	20	
Selenium	ug/L	2.0	40	40	41.3	41.5	98	99	75-125	0	20	
Thallium	ug/L	ND	40	40	41.3	43.5	103	109	75-125	5	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359387

QC Batch: 763077
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359387001, 50359387002

METHOD BLANK: 3497399 Matrix: Water
Associated Lab Samples: 50359387001, 50359387002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/16/23 09:42	

LABORATORY CONTROL SAMPLE: 3497400

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	295	98	80-120	

SAMPLE DUPLICATE: 3497401

Parameter	Units	50359369004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1600	1570	2	10	

SAMPLE DUPLICATE: 3497402

Parameter	Units	50359387002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2950	2920	1	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359387

QC Batch: 763078
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359387003, 50359387004

METHOD BLANK: 3497403 Matrix: Water
Associated Lab Samples: 50359387003, 50359387004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/16/23 15:14	

LABORATORY CONTROL SAMPLE: 3497404

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	268	89	80-120	

SAMPLE DUPLICATE: 3497405

Parameter	Units	50359387004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1620	1560	4	10	

SAMPLE DUPLICATE: 3497406

Parameter	Units	50359442017 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1530	1590	4	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359387

QC Batch: 765044
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359387001, 50359387002, 50359387003, 50359387004

SAMPLE DUPLICATE: 3506067

Parameter	Units	50359359001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.1	8.2	1	2	H3

SAMPLE DUPLICATE: 3506068

Parameter	Units	50359387004 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.1	0	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359387

Sample: AP-4A **Lab ID: 50359387001** Collected: 11/09/23 12:10 Received: 11/10/23 10:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.218 ± 0.339 (0.587) C:NA T:84%**	pCi/L	12/08/23 13:35	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.367 ± 0.349 (0.709) C:79% T:84%**	pCi/L	11/30/23 15:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.585 ± 0.688 (1.30)**	pCi/L	12/08/23 15:57	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359387

Sample: DUP-4 **Lab ID: 50359387002** Collected: 11/09/23 08:00 Received: 11/10/23 10:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.692 ± 0.548 (0.799) C:NA T:86%**	pCi/L	12/08/23 13:35	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.491 ± 0.337 (0.637) C:85% T:86%**	pCi/L	11/30/23 15:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.18 ± 0.885 (1.44)**	pCi/L	12/08/23 15:57	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359387

Sample: AP-4I **Lab ID: 50359387003** Collected: 11/09/23 14:20 Received: 11/10/23 10:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.533 ± 0.494 (0.752) C:NA T:88%**	pCi/L	12/08/23 13:35	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.152 ± 0.326 (0.721) C:81% T:88%**	pCi/L	11/30/23 15:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.685 ± 0.820 (1.47)**	pCi/L	12/08/23 15:57	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359387

Sample: AP-5 **Lab ID: 50359387004** Collected: 11/09/23 17:00 Received: 11/10/23 10:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.160 ± 0.313 (0.573) C:NA T:86%**	pCi/L	12/08/23 13:35	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.683 ± 0.391 (0.712) C:81% T:86%**	pCi/L	11/30/23 15:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.843 ± 0.704 (1.29)**	pCi/L	12/08/23 15:57	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359387

Sample: AP-5 MS **Lab ID: 50359387005** Collected: 11/09/23 17:00 Received: 11/10/23 10:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**93.25 %REC ± NA (NA) C:NA T:NA**	pCi/L	12/08/23 13:35	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**96.86 %REC ± NA (NA) C:NA T:NA**	pCi/L	11/30/23 15:17	15262-20-1	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359387

Sample: AP-5 MSD **Lab ID: 50359387006** Collected: 11/09/23 17:00 Received: 11/10/23 10:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**97.29 %REC 4.24RPD ± NA (NA) C:NA T:NA**	pCi/L	12/08/23 13:35	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**72.19 %REC 29.19RPD ± NA (NA) C:NA T:NA**	pCi/L	11/30/23 15:17	15262-20-1	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359387

QC Batch: 630103
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359387001, 50359387002, 50359387003, 50359387004, 50359387005, 50359387006

METHOD BLANK: 3071769 Matrix: Water
Associated Lab Samples: 50359387001, 50359387002, 50359387003, 50359387004, 50359387005, 50359387006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.345 ± 0.349 (0.717) C:82% T:80%	pCi/L	11/30/23 15:15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359387

QC Batch: 630102
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359387001, 50359387002, 50359387003, 50359387004, 50359387005, 50359387006

METHOD BLANK: 3071766 Matrix: Water
Associated Lab Samples: 50359387001, 50359387002, 50359387003, 50359387004, 50359387005, 50359387006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0694 ± 0.360 (0.747) C:NA T:80%	pCi/L	12/08/23 13:21	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359387

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359387

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359387001	**AP-4A**	EPA 9056	763720		
50359387002	**DUP-4**	EPA 9056	763720		
50359387003	**AP-4I**	EPA 9056	763720		
50359387004	**AP-5**	EPA 9056	763720		
50359387001	**AP-4A**	EPA 3010	762715	EPA 6010	763791
50359387002	**DUP-4**	EPA 3010	762715	EPA 6010	763791
50359387003	**AP-4I**	EPA 3010	762715	EPA 6010	763791
50359387004	**AP-5**	EPA 3010	762715	EPA 6010	763791
50359387001	**AP-4A**	EPA 200.2	763694	EPA 6020	763808
50359387002	**DUP-4**	EPA 200.2	763694	EPA 6020	763808
50359387003	**AP-4I**	EPA 200.2	763694	EPA 6020	763808
50359387004	**AP-5**	EPA 200.2	763694	EPA 6020	763808
50359387001	**AP-4A**	EPA 903.1	630102		
50359387002	**DUP-4**	EPA 903.1	630102		
50359387003	**AP-4I**	EPA 903.1	630102		
50359387004	**AP-5**	EPA 903.1	630102		
50359387005	**AP-5 MS**	EPA 903.1	630102		
50359387006	**AP-5 MSD**	EPA 903.1	630102		
50359387001	**AP-4A**	EPA 904.0	630103		
50359387002	**DUP-4**	EPA 904.0	630103		
50359387003	**AP-4I**	EPA 904.0	630103		
50359387004	**AP-5**	EPA 904.0	630103		
50359387005	**AP-5 MS**	EPA 904.0	630103		
50359387006	**AP-5 MSD**	EPA 904.0	630103		
50359387001	**AP-4A**	Total Radium Calculation	634936		
50359387002	**DUP-4**	Total Radium Calculation	634936		
50359387003	**AP-4I**	Total Radium Calculation	634936		
50359387004	**AP-5**	Total Radium Calculation	634936		
50359387001	**AP-4A**	SM 2540C	763077		
50359387002	**DUP-4**	SM 2540C	763077		
50359387003	**AP-4I**	SM 2540C	763078		
50359387004	**AP-5**	SM 2540C	763078		
50359387001	**AP-4A**	SM 4500-H+B	765044		
50359387002	**DUP-4**	SM 4500-H+B	765044		
50359387003	**AP-4I**	SM 4500-H+B	765044		
50359387004	**AP-5**	SM 4500-H+B	765044		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO# : 50359387

50359387

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section B		Section C	
Required Project Information:		Invoice Information:	
Company:	Atlas Indianapolis	Report To: Mark Breting	Attention: Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:	Company Name: Atlas Indianapolis
	Indianapolis, IN 46256		Address:
Email:	mark.breting@oneatlas.com	Purchase Order #:	Pace Quote:
Phone:	(317)579-4082 Fax:	Project Name: Petersburg Nov 2023 P2R4	Pace Project Manager: Will Statz
Requested Due Date:		Project #:	Pace Profile #: 10498/51

Regulatory Agency:

State / Location: IN

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	Metals, Total*	TDS/pH	(Cl, F, SO4) IC	Rad-226/228 + Sum	Residual Chlorine (Y/N)
1	AP-4A			11-9-23	1125	11-9-23	1210		5	X		X							X	X	X	X	
2	DUP-4			11-9-23		11-9-23			5	X		X							X	X	X	X	
3	AP-4I			11-9-23	1400	11-9-23	1420		5	X		X							X	X	X	X	
4	AP-5			11/9/23	1620	11/9/23	1700		5	X		X							X	X	X	X	
5	MS-3			11/9/23	1620	11/9/23	1700		5	X		X							X	X		X	
6	MSD-3			11/9/23	1620	11/9/23	1700		5	X		X							X	X	X	X	
7																							
8																							
9																							
10																							
11																							
12																							

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Metals* 6010: B, Pb, Mo, Cd, Ca, Li (6)		11-10-23	800		11/10	800				
6020: Co, As, Se, Ba, Tl (5)		11-10	1030		11/10	1030	0.8	Y	Y	Y
Rad 226/228 to Pace PA										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Josh O'Brien

SIGNATURE of SAMPLER: [signature] DATE Signed: 11-9-23

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

F-IN-Q-290-rev.23, 26Jun2023

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 11-10-23 1105

1. **Courier:** ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H

4. **Cooler Temperature(s):** 0.8/0.8 | 1.1/1.1 | | |
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			—
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			—
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			—
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent —
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID		✓	Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS: Start time used instead of end on all containers (11-10-23 CMM)

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC									OTHER								
			MeOH (only)																													
			SBS																													
			DI																													
COC Line Item	WGFU	WGKU BG1U	R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																2		2	1									WT	✓			
2																2		2	1									WT	✓			
3																2		2	1									WT	✓			
4																6		6	3									WT	✓			
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 07, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 10, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50359425001	**MW-21A**	Water	11/09/23 12:00	11/10/23 10:30
50359425002	**MW-21I**	Water	11/09/23 14:15	11/10/23 10:30
50359425003	**MW-21B**	Water	11/09/23 16:00	11/10/23 10:30
50359425004	**BLIND DUP 7**	Water	11/09/23 08:00	11/10/23 10:30
50359425005	**AP-11A**	Water	11/09/23 11:20	11/10/23 10:30
50359425006	**AP-11I**	Water	11/09/23 14:00	11/10/23 10:30
50359425007	**AP-11B**	Water	11/09/23 15:35	11/10/23 10:30

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50359425001	**MW-21A**	EPA 9056	KBB	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	DMT	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359425002	**MW-21I**	EPA 9056	KBB	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	DMT	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359425003	**MW-21B**	EPA 9056	KBB	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	MTM	6	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	DMT	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359425004	**BLIND DUP 7**	EPA 9056	KBB	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	DMT	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359425005	**AP-11A**	EPA 9056	KBB	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	DMT	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	CLM	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359425006	**AP-11I**	EPA 9056	KBB	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	DMT	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359425007	**AP-11B**	EPA 9056	KBB	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	DMT	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359425001	**MW-21A**					
EPA 9056	Bromide	0.48	mg/L	0.050	11/27/23 15:36	
EPA 9056	Chloride	78.9	mg/L	2.5	11/27/23 15:53	
EPA 9056	Fluoride	0.19	mg/L	0.10	11/27/23 15:36	
EPA 9056	Sulfate	1460	mg/L	25.0	11/27/23 16:10	
EPA 6010	Boron	11000	ug/L	100	11/18/23 12:48	
EPA 6010	Calcium	497000	ug/L	5000	11/18/23 14:02	
EPA 6010	Iron	7050	ug/L	100	11/18/23 12:48	
EPA 6010	Lithium	71.2	ug/L	20.0	11/18/23 12:48	
EPA 6010	Magnesium	40900	ug/L	1000	11/18/23 12:48	
EPA 6010	Molybdenum	165	ug/L	10.0	11/18/23 12:48	
EPA 6010	Potassium	17400	ug/L	1000	11/18/23 12:48	
EPA 6010	Silica	14100	ug/L	450	11/18/23 12:48	N2
EPA 6010	Sodium	59000	ug/L	1000	11/18/23 12:48	
EPA 6010	Boron, Dissolved	10900	ug/L	100	11/22/23 12:24	
EPA 6010	Iron, Dissolved	5680	ug/L	100	11/22/23 12:24	
EPA 6010	Lithium, Dissolved	72.7	ug/L	20.0	11/22/23 12:24	
EPA 6010	Magnesium, Dissolved	39500	ug/L	1000	11/22/23 12:24	
EPA 6010	Molybdenum, Dissolved	165	ug/L	10.0	11/22/23 12:24	
EPA 6010	Potassium, Dissolved	17500	ug/L	1000	11/22/23 12:24	
EPA 6020	Aluminum	204	ug/L	10.0	11/20/23 09:24	
EPA 6020	Arsenic	2.1	ug/L	1.0	11/20/23 09:24	
EPA 6020	Barium	31.1	ug/L	1.0	11/20/23 09:24	
EPA 6020	Manganese	826	ug/L	5.0	11/20/23 04:17	
EPA 6020	Manganese, Dissolved	795	ug/L	10.0	11/22/23 04:03	
EPA 903.1	Radium-226	0.219 ± 0.341 (0.590) C:NA T:93%	pCi/L		12/07/23 13:54	
EPA 904.0	Radium-228	0.779 ± 0.389 (0.676) C:84% T:83%	pCi/L		12/04/23 11:50	
Total Radium Calculation	Total Radium	0.998 ± 0.730 (1.27)	pCi/L		12/07/23 16:23	
SM 2320B	Alkalinity, Total as CaCO3	120	mg/L	10.0	11/16/23 20:30	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	120	mg/L	10.0	11/16/23 20:30	
SM 2540C	Total Dissolved Solids	2150	mg/L	20.0	11/16/23 15:16	
SM 4500-H+B	pH at 25 Degrees C	7.0	Std. Units	0.10	11/28/23 16:00	H3
SM 4500-S2-D	Sulfide	0.026J	mg/L	0.10	11/14/23 15:56	
HACH 8146	Iron, Ferrous	0.34	mg/L	0.20	11/16/23 12:22	H3,N2
EPA 365.1	Phosphate as P04	0.95	mg/L	0.15	11/21/23 19:21	
SM 5310C	Total Organic Carbon	1.8	mg/L	1.0	11/22/23 00:56	
SM 5310C	Dissolved Organic Carbon	4.4	mg/L	1.0	11/21/23 21:52	
50359425002	**MW-21I**					
EPA 9056	Bromide	0.42	mg/L	0.050	11/27/23 16:27	
EPA 9056	Chloride	69.2	mg/L	2.5	11/27/23 16:44	
EPA 9056	Fluoride	0.12	mg/L	0.10	11/27/23 16:27	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359425002	**MW-21I**					
EPA 9056	Sulfate	390	mg/L	2.5	11/27/23 16:44	
EPA 6010	Boron	1900	ug/L	100	11/18/23 12:49	
EPA 6010	Calcium	238000	ug/L	2000	11/18/23 14:07	
EPA 6010	Iron	5710	ug/L	100	11/18/23 12:49	
EPA 6010	Lithium	21.3	ug/L	20.0	11/18/23 12:49	
EPA 6010	Magnesium	36800	ug/L	1000	11/18/23 12:49	
EPA 6010	Molybdenum	108	ug/L	10.0	11/18/23 12:49	
EPA 6010	Potassium	8750	ug/L	1000	11/18/23 12:49	
EPA 6010	Silica	14900	ug/L	450	11/18/23 12:49	N2
EPA 6010	Sodium	40700	ug/L	1000	11/18/23 12:49	
EPA 6010	Boron, Dissolved	1890	ug/L	100	11/22/23 12:34	
EPA 6010	Iron, Dissolved	5040	ug/L	100	11/22/23 12:34	
EPA 6010	Lithium, Dissolved	21.2	ug/L	20.0	11/22/23 12:34	
EPA 6010	Magnesium, Dissolved	35300	ug/L	1000	11/22/23 12:34	
EPA 6010	Molybdenum, Dissolved	109	ug/L	10.0	11/22/23 12:34	
EPA 6010	Potassium, Dissolved	8810	ug/L	1000	11/22/23 12:34	
EPA 6020	Aluminum	182	ug/L	10.0	11/20/23 09:34	
EPA 6020	Barium	40.9	ug/L	1.0	11/20/23 09:34	
EPA 6020	Manganese	1230	ug/L	10.0	11/20/23 04:20	
EPA 6020	Manganese, Dissolved	1180	ug/L	10.0	11/22/23 04:07	
EPA 903.1	Radium-226	0.192 ± 0.378 (0.691) C:NA T:86%	pCi/L		12/07/23 13:54	
EPA 904.0	Radium-228	0.633 ± 0.365 (0.663) C:83% T:82%	pCi/L		12/04/23 11:50	
Total Radium Calculation	Total Radium	0.825 ± 0.743 (1.35)	pCi/L		12/07/23 16:23	
SM 2320B	Alkalinity, Total as CaCO3	339	mg/L	10.0	11/16/23 20:30	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	339	mg/L	10.0	11/16/23 20:30	
SM 2540C	Total Dissolved Solids	1070	mg/L	10.0	11/16/23 15:16	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	11/28/23 16:00	H3
HACH 8146	Iron, Ferrous	0.30	mg/L	0.20	11/16/23 12:24	H3,N2
EPA 365.1	Phosphate as P04	1.2	mg/L	0.15	11/21/23 19:22	
SM 5310C	Total Organic Carbon	1.8	mg/L	1.0	11/22/23 01:42	
SM 5310C	Dissolved Organic Carbon	4.8	mg/L	1.0	11/21/23 22:15	
50359425003	**MW-21B**					
EPA 9056	Bromide	0.62	mg/L	0.050	11/27/23 17:01	
EPA 9056	Chloride	52.3	mg/L	2.5	11/27/23 17:17	
EPA 9056	Sulfate	352	mg/L	2.5	11/27/23 17:17	
EPA 6010	Boron	825	ug/L	100	11/18/23 12:51	
EPA 6010	Calcium	258000	ug/L	2000	11/18/23 14:09	
EPA 6010	Iron	753	ug/L	100	11/18/23 12:51	
EPA 6010	Magnesium	57900	ug/L	1000	11/18/23 12:51	
EPA 6010	Potassium	1250	ug/L	1000	11/18/23 12:51	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359425003	**MW-21B**					
EPA 6010	Silica	17500	ug/L	450	11/18/23 12:51	N2
EPA 6010	Sodium	27500	ug/L	1000	11/18/23 12:51	
EPA 6010	Boron, Dissolved	789	ug/L	100	11/22/23 12:36	
EPA 6010	Magnesium, Dissolved	55300	ug/L	1000	11/22/23 12:36	
EPA 6010	Potassium, Dissolved	1200	ug/L	1000	11/22/23 12:36	
EPA 6020	Aluminum	70.8	ug/L	10.0	11/20/23 09:37	
EPA 6020	Barium	68.3	ug/L	1.0	11/20/23 09:37	
EPA 6020	Cobalt	2.1	ug/L	1.0	11/20/23 09:37	
EPA 6020	Manganese	1780	ug/L	10.0	11/20/23 04:24	
EPA 6020	Manganese, Dissolved	1650	ug/L	20.0	11/22/23 04:11	
EPA 903.1	Radium-226	0.192 ± 0.416 (0.768) C:NA T:83%	pCi/L		12/07/23 13:54	
EPA 904.0	Radium-228	1.02 ± 0.453 (0.744) C:84% T:76%	pCi/L		12/04/23 11:50	
Total Radium Calculation	Total Radium	1.21 ± 0.869 (1.51)	pCi/L		12/07/23 16:23	
SM 2320B	Alkalinity, Total as CaCO3	474	mg/L	10.0	11/16/23 20:30	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	474	mg/L	10.0	11/16/23 20:30	
SM 2540C	Total Dissolved Solids	1120	mg/L	10.0	11/16/23 15:17	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	11/28/23 16:00	H3
SM 5310C	Total Organic Carbon	1.5	mg/L	1.0	11/22/23 02:07	
SM 5310C	Dissolved Organic Carbon	6.4	mg/L	1.0	11/21/23 22:26	
50359425004	**BLIND DUP 7**					
EPA 9056	Bromide	0.48	mg/L	0.050	11/27/23 17:34	
EPA 9056	Chloride	79.0	mg/L	2.5	11/27/23 17:51	
EPA 9056	Fluoride	0.19	mg/L	0.10	11/27/23 17:34	
EPA 9056	Sulfate	1340	mg/L	25.0	11/27/23 18:08	
EPA 6010	Boron	11200	ug/L	100	11/18/23 12:55	
EPA 6010	Calcium	502000	ug/L	5000	11/18/23 14:10	
EPA 6010	Iron	7120	ug/L	100	11/18/23 12:55	
EPA 6010	Lithium	75.2	ug/L	20.0	11/18/23 12:55	
EPA 6010	Magnesium	41500	ug/L	1000	11/18/23 12:55	
EPA 6010	Molybdenum	168	ug/L	10.0	11/18/23 12:55	
EPA 6010	Potassium	17500	ug/L	1000	11/18/23 12:55	
EPA 6010	Silica	14300	ug/L	450	11/18/23 12:55	N2
EPA 6010	Sodium	59800	ug/L	1000	11/18/23 12:55	
EPA 6010	Boron, Dissolved	11100	ug/L	100	11/22/23 12:37	
EPA 6010	Iron, Dissolved	5760	ug/L	100	11/22/23 12:37	
EPA 6010	Lithium, Dissolved	73.2	ug/L	20.0	11/22/23 12:37	
EPA 6010	Magnesium, Dissolved	40000	ug/L	1000	11/22/23 12:37	
EPA 6010	Molybdenum, Dissolved	165	ug/L	10.0	11/22/23 12:37	
EPA 6010	Potassium, Dissolved	17800	ug/L	1000	11/22/23 12:37	
EPA 6020	Aluminum	192	ug/L	10.0	11/20/23 09:41	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359425004	**BLIND DUP 7**					
EPA 6020	Arsenic	2.0	ug/L	1.0	11/20/23 09:41	
EPA 6020	Barium	31.5	ug/L	1.0	11/20/23 09:41	
EPA 6020	Manganese	838	ug/L	5.0	11/20/23 04:27	
EPA 6020	Manganese, Dissolved	804	ug/L	10.0	11/22/23 04:15	
EPA 903.1	Radium-226	0.564 ± 0.447 (0.607) C:NA T:88%	pCi/L		12/07/23 13:54	
EPA 904.0	Radium-228	0.891 ± 0.583 (1.12) C:72% T:77%	pCi/L		12/04/23 15:23	
Total Radium Calculation	Total Radium	1.46 ± 1.03 (1.73)	pCi/L		12/07/23 16:23	
SM 2320B	Alkalinity, Total as CaCO3	120	mg/L	10.0	11/16/23 20:30	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	120	mg/L	10.0	11/16/23 20:30	
SM 2540C	Total Dissolved Solids	2130	mg/L	20.0	11/16/23 15:18	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	11/28/23 16:01	H3
SM 4500-S2-D	Sulfide	0.15	mg/L	0.10	11/14/23 15:56	
HACH 8146	Iron, Ferrous	0.48	mg/L	0.20	11/16/23 12:21	H3,N2
EPA 365.1	Phosphate as P04	1.0	mg/L	0.15	11/21/23 18:19	
SM 5310C	Total Organic Carbon	1.8	mg/L	1.0	11/22/23 02:27	
SM 5310C	Dissolved Organic Carbon	2.7	mg/L	1.0	11/21/23 22:37	
50359425005	**AP-11A**					
EPA 9056	Bromide	0.067	mg/L	0.050	11/27/23 18:59	
EPA 9056	Chloride	6.9	mg/L	0.25	11/27/23 18:59	
EPA 9056	Sulfate	535	mg/L	25.0	11/27/23 19:15	
EPA 6010	Boron	607	ug/L	100	11/18/23 12:57	
EPA 6010	Calcium	223000	ug/L	2000	11/18/23 14:12	
EPA 6010	Iron	12900	ug/L	100	11/18/23 12:57	
EPA 6010	Lithium	21.8	ug/L	20.0	11/18/23 12:57	
EPA 6010	Magnesium	73500	ug/L	1000	11/18/23 12:57	
EPA 6010	Potassium	1480	ug/L	1000	11/18/23 12:57	
EPA 6010	Silica	28300	ug/L	450	11/18/23 12:57	N2
EPA 6010	Sodium	13400	ug/L	1000	11/18/23 12:57	
EPA 6010	Boron, Dissolved	583	ug/L	100	11/22/23 12:39	
EPA 6010	Iron, Dissolved	12000	ug/L	100	11/22/23 12:39	
EPA 6010	Lithium, Dissolved	21.2	ug/L	20.0	11/22/23 12:39	
EPA 6010	Magnesium, Dissolved	69400	ug/L	1000	11/22/23 12:39	
EPA 6010	Potassium, Dissolved	1400	ug/L	1000	11/22/23 12:39	
EPA 6020	Aluminum	35.8	ug/L	10.0	11/21/23 03:05	
EPA 6020	Barium	29.0	ug/L	1.0	11/20/23 09:51	
EPA 6020	Manganese	702	ug/L	5.0	11/20/23 04:31	
EPA 6020	Manganese, Dissolved	694	ug/L	10.0	11/22/23 04:19	
EPA 903.1	Radium-226	1.46 ± 0.734 (0.799) C:NA T:87%	pCi/L		12/07/23 13:54	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359425005	**AP-11A**					
EPA 904.0	Radium-228	-0.0711 ± 0.406 (0.962) C:73% T:79%	pCi/L		12/04/23 15:23	
Total Radium Calculation	Total Radium	1.46 ± 1.14 (1.76)	pCi/L		12/07/23 16:23	
SM 2320B	Alkalinity, Total as CaCO3	303	mg/L	10.0	11/16/23 20:30	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	303	mg/L	10.0	11/16/23 20:30	
SM 2540C	Total Dissolved Solids	1120	mg/L	20.0	11/16/23 15:18	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	11/28/23 16:01	H3
HACH 8146	Iron, Ferrous	3.0	mg/L	1.0	11/16/23 12:21	H3,N2
EPA 365.1	Phosphate as P04	1.3	mg/L	0.15	11/21/23 18:19	
SM 5310C	Total Organic Carbon	1.2	mg/L	1.0	11/22/23 02:52	
SM 5310C	Dissolved Organic Carbon	2.8	mg/L	1.0	11/21/23 22:48	
50359425006	**AP-11I**					
EPA 9056	Bromide	0.074	mg/L	0.050	11/27/23 19:32	
EPA 9056	Chloride	8.2	mg/L	0.25	11/27/23 19:32	
EPA 9056	Sulfate	368	mg/L	25.0	11/27/23 19:49	
EPA 6010	Boron	1130	ug/L	100	11/18/23 12:58	
EPA 6010	Calcium	181000	ug/L	1000	11/18/23 12:58	
EPA 6010	Iron	22300	ug/L	100	11/18/23 12:58	
EPA 6010	Magnesium	57300	ug/L	1000	11/18/23 12:58	
EPA 6010	Silica	29000	ug/L	450	11/18/23 12:58	N2
EPA 6010	Sodium	8520	ug/L	1000	11/18/23 12:58	
EPA 6010	Boron, Dissolved	1080	ug/L	100	11/22/23 12:40	
EPA 6010	Iron, Dissolved	20800	ug/L	100	11/22/23 12:40	
EPA 6010	Magnesium, Dissolved	53900	ug/L	1000	11/22/23 12:40	
EPA 6020	Aluminum	131	ug/L	10.0	11/21/23 03:08	
EPA 6020	Arsenic	1.7	ug/L	1.0	11/20/23 09:55	
EPA 6020	Barium	62.6	ug/L	1.0	11/20/23 09:55	
EPA 6020	Manganese	6150	ug/L	50.0	11/20/23 04:34	
EPA 6020	Manganese, Dissolved	5980	ug/L	50.0	11/22/23 04:23	
EPA 903.1	Radium-226	-0.0795 ± 0.517 (1.12) C:NA T:79%	pCi/L		12/07/23 13:54	
EPA 904.0	Radium-228	0.0917 ± 0.476 (1.08) C:64% T:82%	pCi/L		12/04/23 15:23	
Total Radium Calculation	Total Radium	0.0917 ± 0.993 (2.20)	pCi/L		12/07/23 16:23	
SM 2320B	Alkalinity, Total as CaCO3	311	mg/L	10.0	11/16/23 20:30	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	311	mg/L	10.0	11/16/23 20:30	
SM 2540C	Total Dissolved Solids	872	mg/L	10.0	11/16/23 15:18	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	11/28/23 16:02	H3
HACH 8146	Iron, Ferrous	5.7	mg/L	1.0	11/16/23 12:23	H3,N2

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359425006	**AP-11I**					
EPA 365.1	Phosphate as P04	1.6	mg/L	0.15	11/21/23 18:20	
SM 5310C	Total Organic Carbon	1.7	mg/L	1.0	11/22/23 03:18	
SM 5310C	Dissolved Organic Carbon	3.0	mg/L	1.0	11/21/23 22:58	
50359425007	**AP-11B**					
EPA 9056	Chloride	5.0	mg/L	0.25	11/27/23 20:06	
EPA 9056	Fluoride	0.11	mg/L	0.10	11/27/23 20:06	
EPA 9056	Sulfate	359	mg/L	25.0	11/27/23 20:23	
EPA 6010	Boron	861	ug/L	100	11/18/23 13:00	
EPA 6010	Calcium	160000	ug/L	1000	11/18/23 13:00	
EPA 6010	Iron	874	ug/L	100	11/18/23 13:00	
EPA 6010	Magnesium	54100	ug/L	1000	11/18/23 13:00	
EPA 6010	Silica	19600	ug/L	450	11/18/23 13:00	N2
EPA 6010	Sodium	9950	ug/L	1000	11/18/23 13:00	
EPA 6010	Boron, Dissolved	838	ug/L	100	11/22/23 12:42	
EPA 6010	Iron, Dissolved	764	ug/L	100	11/22/23 12:42	
EPA 6010	Magnesium, Dissolved	52100	ug/L	1000	11/22/23 12:42	
EPA 6020	Aluminum	58.0	ug/L	10.0	11/21/23 03:12	
EPA 6020	Barium	17.3	ug/L	1.0	11/20/23 09:58	
EPA 6020	Cobalt	1.1	ug/L	1.0	11/20/23 09:58	
EPA 6020	Manganese	546	ug/L	5.0	11/20/23 04:37	
EPA 6020	Manganese, Dissolved	597	ug/L	10.0	11/22/23 04:27	
EPA 903.1	Radium-226	0.184 ± 0.497 (0.922) C:NA T:84%	pCi/L		12/07/23 13:54	
EPA 904.0	Radium-228	0.779 ± 0.527 (1.02) C:76% T:78%	pCi/L		12/04/23 15:24	
Total Radium Calculation	Total Radium	0.963 ± 1.02 (1.94)	pCi/L		12/07/23 16:23	
SM 2320B	Alkalinity, Total as CaCO3	280	mg/L	10.0	11/16/23 20:30	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	280	mg/L	10.0	11/16/23 20:30	
SM 2540C	Total Dissolved Solids	794	mg/L	10.0	11/16/23 15:19	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	11/28/23 16:02	H3
HACH 8146	Iron, Ferrous	0.30	mg/L	0.20	11/16/23 12:24	H3,N2
EPA 365.1	Phosphate as P04	0.25	mg/L	0.15	11/21/23 18:23	
SM 5310C	Total Organic Carbon	1.0	mg/L	1.0	11/22/23 03:43	
SM 5310C	Dissolved Organic Carbon	2.3	mg/L	1.0	11/21/23 23:15	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Sample: MW-21A **Lab ID: 50359425001** Collected: 11/09/23 12:00 Received: 11/10/23 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.48**	mg/L	0.050	0.0090	1		11/27/23 15:36	24959-67-9	
Chloride	**78.9**	mg/L	2.5	0.67	10		11/27/23 15:53	16887-00-6	
Fluoride	**0.19**	mg/L	0.10	0.017	1		11/27/23 15:36	16984-48-8	
Sulfate	**1460**	mg/L	25.0	19.0	100		11/27/23 16:10	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**11000**	ug/L	100	11.4	1	11/17/23 08:32	11/18/23 12:48	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/17/23 08:32	11/18/23 12:48	7440-43-9	
Calcium	**497000**	ug/L	5000	284	5	11/17/23 08:32	11/18/23 14:02	7440-70-2	
Iron	**7050**	ug/L	100	18.1	1	11/17/23 08:32	11/18/23 12:48	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/17/23 08:32	11/18/23 12:48	7439-92-1	
Lithium	**71.2**	ug/L	20.0	5.1	1	11/17/23 08:32	11/18/23 12:48	7439-93-2	
Magnesium	**40900**	ug/L	1000	32.8	1	11/17/23 08:32	11/18/23 12:48	7439-95-4	
Molybdenum	**165**	ug/L	10.0	1.1	1	11/17/23 08:32	11/18/23 12:48	7439-98-7	
Potassium	**17400**	ug/L	1000	120	1	11/17/23 08:32	11/18/23 12:48	7440-09-7	
Silica	**14100**	ug/L	450		1	11/17/23 08:32	11/18/23 12:48	7631-86-9	N2
Sodium	**59000**	ug/L	1000	48.2	1	11/17/23 08:32	11/18/23 12:48	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**10900**	ug/L	100	11.4	1	11/21/23 08:24	11/22/23 12:24	7440-42-8	
Iron, Dissolved	**5680**	ug/L	100	18.1	1	11/21/23 08:24	11/22/23 12:24	7439-89-6	
Lithium, Dissolved	**72.7**	ug/L	20.0	5.1	1	11/21/23 08:24	11/22/23 12:24	7439-93-2	
Magnesium, Dissolved	**39500**	ug/L	1000	32.8	1	11/21/23 08:24	11/22/23 12:24	7439-95-4	
Molybdenum, Dissolved	**165**	ug/L	10.0	1.1	1	11/21/23 08:24	11/22/23 12:24	7439-98-7	
Potassium, Dissolved	**17500**	ug/L	1000	120	1	11/21/23 08:24	11/22/23 12:24	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**204**	ug/L	10.0	4.4	1	11/18/23 10:16	11/20/23 09:24	7429-90-5	
Arsenic	**2.1**	ug/L	1.0	0.064	1	11/18/23 10:16	11/20/23 09:24	7440-38-2	
Barium	**31.1**	ug/L	1.0	0.067	1	11/18/23 10:16	11/20/23 09:24	7440-39-3	
Cobalt	ND	ug/L	1.0	0.024	1	11/18/23 10:16	11/20/23 09:24	7440-48-4	
Manganese	**826**	ug/L	5.0	0.22	5	11/18/23 10:16	11/20/23 04:17	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	11/18/23 10:16	11/20/23 09:24	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/20/23 02:07	11/21/23 10:08	7429-90-5	
Manganese, Dissolved	**795**	ug/L	10.0	1.8	10	11/20/23 02:07	11/22/23 04:03	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Sample: MW-21A **Lab ID: 50359425001** Collected: 11/09/23 12:00 Received: 11/10/23 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**120**	mg/L	10.0	10.0	1		11/16/23 20:30		
Alkalinity,Bicarbonate (CaCO3)	**120**	mg/L	10.0	10.0	1		11/16/23 20:30		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/16/23 20:30		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2150**	mg/L	20.0	20.0	1		11/16/23 15:16		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.0**	Std. Units	0.10	0.10	1		11/28/23 16:00		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	**0.026J**	mg/L	0.10	0.025	1		11/14/23 15:56	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**0.34**	mg/L	0.20	0.035	1		11/16/23 12:22	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/11/23 00:20	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/11/23 00:20	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.95**	mg/L	0.15	0.15	1	11/20/23 13:00	11/21/23 19:21		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.8**	mg/L	1.0	0.24	1		11/22/23 00:56	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**4.4**	mg/L	1.0	0.24	1		11/21/23 21:52		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Sample: MW-21I **Lab ID: 50359425002** Collected: 11/09/23 14:15 Received: 11/10/23 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.42**	mg/L	0.050	0.0090	1		11/27/23 16:27	24959-67-9	
Chloride	**69.2**	mg/L	2.5	0.67	10		11/27/23 16:44	16887-00-6	
Fluoride	**0.12**	mg/L	0.10	0.017	1		11/27/23 16:27	16984-48-8	
Sulfate	**390**	mg/L	2.5	1.9	10		11/27/23 16:44	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**1900**	ug/L	100	11.4	1	11/17/23 08:32	11/18/23 12:49	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/17/23 08:32	11/18/23 12:49	7440-43-9	
Calcium	**238000**	ug/L	2000	113	2	11/17/23 08:32	11/18/23 14:07	7440-70-2	
Iron	**5710**	ug/L	100	18.1	1	11/17/23 08:32	11/18/23 12:49	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/17/23 08:32	11/18/23 12:49	7439-92-1	
Lithium	**21.3**	ug/L	20.0	5.1	1	11/17/23 08:32	11/18/23 12:49	7439-93-2	
Magnesium	**36800**	ug/L	1000	32.8	1	11/17/23 08:32	11/18/23 12:49	7439-95-4	
Molybdenum	**108**	ug/L	10.0	1.1	1	11/17/23 08:32	11/18/23 12:49	7439-98-7	
Potassium	**8750**	ug/L	1000	120	1	11/17/23 08:32	11/18/23 12:49	7440-09-7	
Silica	**14900**	ug/L	450		1	11/17/23 08:32	11/18/23 12:49	7631-86-9	N2
Sodium	**40700**	ug/L	1000	48.2	1	11/17/23 08:32	11/18/23 12:49	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1890**	ug/L	100	11.4	1	11/21/23 08:24	11/22/23 12:34	7440-42-8	
Iron, Dissolved	**5040**	ug/L	100	18.1	1	11/21/23 08:24	11/22/23 12:34	7439-89-6	
Lithium, Dissolved	**21.2**	ug/L	20.0	5.1	1	11/21/23 08:24	11/22/23 12:34	7439-93-2	
Magnesium, Dissolved	**35300**	ug/L	1000	32.8	1	11/21/23 08:24	11/22/23 12:34	7439-95-4	
Molybdenum, Dissolved	**109**	ug/L	10.0	1.1	1	11/21/23 08:24	11/22/23 12:34	7439-98-7	
Potassium, Dissolved	**8810**	ug/L	1000	120	1	11/21/23 08:24	11/22/23 12:34	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**182**	ug/L	10.0	4.4	1	11/18/23 10:16	11/20/23 09:34	7429-90-5	
Arsenic	ND	ug/L	1.0	0.064	1	11/18/23 10:16	11/20/23 09:34	7440-38-2	
Barium	**40.9**	ug/L	1.0	0.067	1	11/18/23 10:16	11/20/23 09:34	7440-39-3	
Cobalt	ND	ug/L	1.0	0.024	1	11/18/23 10:16	11/20/23 09:34	7440-48-4	
Manganese	**1230**	ug/L	10.0	0.43	10	11/18/23 10:16	11/20/23 04:20	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	11/18/23 10:16	11/20/23 09:34	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/20/23 02:07	11/21/23 10:12	7429-90-5	
Manganese, Dissolved	**1180**	ug/L	10.0	1.8	10	11/20/23 02:07	11/22/23 04:07	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Sample: MW-21I **Lab ID: 50359425002** Collected: 11/09/23 14:15 Received: 11/10/23 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**339**	mg/L	10.0	10.0	1		11/16/23 20:30		
Alkalinity,Bicarbonate (CaCO3)	**339**	mg/L	10.0	10.0	1		11/16/23 20:30		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/16/23 20:30		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1070**	mg/L	10.0	10.0	1		11/16/23 15:16		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		11/28/23 16:00		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 15:56	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**0.30**	mg/L	0.20	0.035	1		11/16/23 12:24	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/11/23 00:29	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/11/23 00:29	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**1.2**	mg/L	0.15	0.15	1	11/20/23 13:00	11/21/23 19:22		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.8**	mg/L	1.0	0.24	1		11/22/23 01:42	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**4.8**	mg/L	1.0	0.24	1		11/21/23 22:15		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Sample: MW-21B **Lab ID: 50359425003** Collected: 11/09/23 16:00 Received: 11/10/23 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.62**	mg/L	0.050	0.0090	1		11/27/23 17:01	24959-67-9	
Chloride	**52.3**	mg/L	2.5	0.67	10		11/27/23 17:17	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/27/23 17:01	16984-48-8	
Sulfate	**352**	mg/L	2.5	1.9	10		11/27/23 17:17	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**825**	ug/L	100	11.4	1	11/17/23 08:32	11/18/23 12:51	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/17/23 08:32	11/18/23 12:51	7440-43-9	
Calcium	**258000**	ug/L	2000	113	2	11/17/23 08:32	11/18/23 14:09	7440-70-2	
Iron	**753**	ug/L	100	18.1	1	11/17/23 08:32	11/18/23 12:51	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/17/23 08:32	11/18/23 12:51	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/17/23 08:32	11/18/23 12:51	7439-93-2	
Magnesium	**57900**	ug/L	1000	32.8	1	11/17/23 08:32	11/18/23 12:51	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	11/17/23 08:32	11/18/23 12:51	7439-98-7	
Potassium	**1250**	ug/L	1000	120	1	11/17/23 08:32	11/18/23 12:51	7440-09-7	
Silica	**17500**	ug/L	450		1	11/17/23 08:32	11/18/23 12:51	7631-86-9	N2
Sodium	**27500**	ug/L	1000	48.2	1	11/17/23 08:32	11/18/23 12:51	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**789**	ug/L	100	11.4	1	11/21/23 08:24	11/22/23 12:36	7440-42-8	
Iron, Dissolved	ND	ug/L	100	18.1	1	11/21/23 08:24	11/22/23 12:36	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	11/21/23 08:24	11/22/23 12:36	7439-93-2	
Magnesium, Dissolved	**55300**	ug/L	1000	32.8	1	11/21/23 08:24	11/22/23 12:36	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	11/21/23 08:24	11/22/23 12:36	7439-98-7	
Potassium, Dissolved	**1200**	ug/L	1000	120	1	11/21/23 08:24	11/22/23 12:36	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**70.8**	ug/L	10.0	4.4	1	11/18/23 10:16	11/20/23 09:37	7429-90-5	
Arsenic	ND	ug/L	1.0	0.064	1	11/18/23 10:16	11/20/23 09:37	7440-38-2	
Barium	**68.3**	ug/L	1.0	0.067	1	11/18/23 10:16	11/20/23 09:37	7440-39-3	
Cobalt	**2.1**	ug/L	1.0	0.024	1	11/18/23 10:16	11/20/23 09:37	7440-48-4	
Manganese	**1780**	ug/L	10.0	0.43	10	11/18/23 10:16	11/20/23 04:24	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	11/18/23 10:16	11/20/23 09:37	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/20/23 02:07	11/21/23 10:16	7429-90-5	
Manganese, Dissolved	**1650**	ug/L	20.0	3.6	20	11/20/23 02:07	11/22/23 04:11	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Sample: MW-21B **Lab ID: 50359425003** Collected: 11/09/23 16:00 Received: 11/10/23 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**474**	mg/L	10.0	10.0	1		11/16/23 20:30		
Alkalinity,Bicarbonate (CaCO3)	**474**	mg/L	10.0	10.0	1		11/16/23 20:30		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/16/23 20:30		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1120**	mg/L	10.0	10.0	1		11/16/23 15:17		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.5**	Std. Units	0.10	0.10	1		11/28/23 16:00		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 15:56	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/16/23 12:24	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/11/23 00:42	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/11/23 00:42	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/20/23 13:00	11/21/23 19:22		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.5**	mg/L	1.0	0.24	1		11/22/23 02:07	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**6.4**	mg/L	1.0	0.24	1		11/21/23 22:26		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Sample: BLIND DUP 7 **Lab ID: 50359425004** Collected: 11/09/23 08:00 Received: 11/10/23 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.48**	mg/L	0.050	0.0090	1		11/27/23 17:34	24959-67-9	
Chloride	**79.0**	mg/L	2.5	0.67	10		11/27/23 17:51	16887-00-6	
Fluoride	**0.19**	mg/L	0.10	0.017	1		11/27/23 17:34	16984-48-8	
Sulfate	**1340**	mg/L	25.0	19.0	100		11/27/23 18:08	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**11200**	ug/L	100	11.4	1	11/17/23 08:32	11/18/23 12:55	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/17/23 08:32	11/18/23 12:55	7440-43-9	
Calcium	**502000**	ug/L	5000	284	5	11/17/23 08:32	11/18/23 14:10	7440-70-2	
Iron	**7120**	ug/L	100	18.1	1	11/17/23 08:32	11/18/23 12:55	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/17/23 08:32	11/18/23 12:55	7439-92-1	
Lithium	**75.2**	ug/L	20.0	5.1	1	11/17/23 08:32	11/18/23 12:55	7439-93-2	
Magnesium	**41500**	ug/L	1000	32.8	1	11/17/23 08:32	11/18/23 12:55	7439-95-4	
Molybdenum	**168**	ug/L	10.0	1.1	1	11/17/23 08:32	11/18/23 12:55	7439-98-7	
Potassium	**17500**	ug/L	1000	120	1	11/17/23 08:32	11/18/23 12:55	7440-09-7	
Silica	**14300**	ug/L	450		1	11/17/23 08:32	11/18/23 12:55	7631-86-9	N2
Sodium	**59800**	ug/L	1000	48.2	1	11/17/23 08:32	11/18/23 12:55	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**11100**	ug/L	100	11.4	1	11/21/23 08:24	11/22/23 12:37	7440-42-8	
Iron, Dissolved	**5760**	ug/L	100	18.1	1	11/21/23 08:24	11/22/23 12:37	7439-89-6	
Lithium, Dissolved	**73.2**	ug/L	20.0	5.1	1	11/21/23 08:24	11/22/23 12:37	7439-93-2	
Magnesium, Dissolved	**40000**	ug/L	1000	32.8	1	11/21/23 08:24	11/22/23 12:37	7439-95-4	
Molybdenum, Dissolved	**165**	ug/L	10.0	1.1	1	11/21/23 08:24	11/22/23 12:37	7439-98-7	
Potassium, Dissolved	**17800**	ug/L	1000	120	1	11/21/23 08:24	11/22/23 12:37	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**192**	ug/L	10.0	4.4	1	11/18/23 10:16	11/20/23 09:41	7429-90-5	
Arsenic	**2.0**	ug/L	1.0	0.064	1	11/18/23 10:16	11/20/23 09:41	7440-38-2	
Barium	**31.5**	ug/L	1.0	0.067	1	11/18/23 10:16	11/20/23 09:41	7440-39-3	
Cobalt	ND	ug/L	1.0	0.024	1	11/18/23 10:16	11/20/23 09:41	7440-48-4	
Manganese	**838**	ug/L	5.0	0.22	5	11/18/23 10:16	11/20/23 04:27	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	11/18/23 10:16	11/20/23 09:41	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/20/23 02:07	11/21/23 10:20	7429-90-5	
Manganese, Dissolved	**804**	ug/L	10.0	1.8	10	11/20/23 02:07	11/22/23 04:15	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Sample: BLIND DUP 7 **Lab ID: 50359425004** Collected: 11/09/23 08:00 Received: 11/10/23 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**120**	mg/L	10.0	10.0	1		11/16/23 20:30		
Alkalinity,Bicarbonate (CaCO3)	**120**	mg/L	10.0	10.0	1		11/16/23 20:30		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/16/23 20:30		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2130**	mg/L	20.0	20.0	1		11/16/23 15:18		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		11/28/23 16:01		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	**0.15**	mg/L	0.10	0.025	1		11/14/23 15:56	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**0.48**	mg/L	0.20	0.035	1		11/16/23 12:21	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/11/23 00:10	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/11/23 00:10	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**1.0**	mg/L	0.15	0.15	1	11/21/23 10:00	11/21/23 18:19		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.8**	mg/L	1.0	0.24	1		11/22/23 02:27	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.7**	mg/L	1.0	0.24	1		11/21/23 22:37		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Sample: AP-11A **Lab ID: 50359425005** Collected: 11/09/23 11:20 Received: 11/10/23 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.067**	mg/L	0.050	0.0090	1		11/27/23 18:59	24959-67-9	
Chloride	**6.9**	mg/L	0.25	0.067	1		11/27/23 18:59	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/27/23 18:59	16984-48-8	
Sulfate	**535**	mg/L	25.0	19.0	100		11/27/23 19:15	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**607**	ug/L	100	11.4	1	11/17/23 08:32	11/18/23 12:57	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/17/23 08:32	11/18/23 12:57	7440-43-9	
Calcium	**223000**	ug/L	2000	113	2	11/17/23 08:32	11/18/23 14:12	7440-70-2	
Iron	**12900**	ug/L	100	18.1	1	11/17/23 08:32	11/18/23 12:57	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/17/23 08:32	11/18/23 12:57	7439-92-1	
Lithium	**21.8**	ug/L	20.0	5.1	1	11/17/23 08:32	11/18/23 12:57	7439-93-2	
Magnesium	**73500**	ug/L	1000	32.8	1	11/17/23 08:32	11/18/23 12:57	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	11/17/23 08:32	11/18/23 12:57	7439-98-7	
Potassium	**1480**	ug/L	1000	120	1	11/17/23 08:32	11/18/23 12:57	7440-09-7	
Silica	**28300**	ug/L	450		1	11/17/23 08:32	11/18/23 12:57	7631-86-9	N2
Sodium	**13400**	ug/L	1000	48.2	1	11/17/23 08:32	11/18/23 12:57	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**583**	ug/L	100	11.4	1	11/21/23 08:24	11/22/23 12:39	7440-42-8	
Iron, Dissolved	**12000**	ug/L	100	18.1	1	11/21/23 08:24	11/22/23 12:39	7439-89-6	
Lithium, Dissolved	**21.2**	ug/L	20.0	5.1	1	11/21/23 08:24	11/22/23 12:39	7439-93-2	
Magnesium, Dissolved	**69400**	ug/L	1000	32.8	1	11/21/23 08:24	11/22/23 12:39	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	11/21/23 08:24	11/22/23 12:39	7439-98-7	
Potassium, Dissolved	**1400**	ug/L	1000	120	1	11/21/23 08:24	11/22/23 12:39	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**35.8**	ug/L	10.0	4.4	1	11/18/23 10:16	11/21/23 03:05	7429-90-5	
Arsenic	ND	ug/L	1.0	0.064	1	11/18/23 10:16	11/20/23 09:51	7440-38-2	
Barium	**29.0**	ug/L	1.0	0.067	1	11/18/23 10:16	11/20/23 09:51	7440-39-3	
Cobalt	ND	ug/L	1.0	0.024	1	11/18/23 10:16	11/20/23 09:51	7440-48-4	
Manganese	**702**	ug/L	5.0	0.22	5	11/18/23 10:16	11/20/23 04:31	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	11/18/23 10:16	11/20/23 09:51	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/20/23 02:07	11/21/23 10:24	7429-90-5	
Manganese, Dissolved	**694**	ug/L	10.0	1.8	10	11/20/23 02:07	11/22/23 04:19	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Sample: AP-11A **Lab ID: 50359425005** Collected: 11/09/23 11:20 Received: 11/10/23 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**303**	mg/L	10.0	10.0	1		11/16/23 20:30		
Alkalinity,Bicarbonate (CaCO3)	**303**	mg/L	10.0	10.0	1		11/16/23 20:30		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/16/23 20:30		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1120**	mg/L	20.0	20.0	1		11/16/23 15:18		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.6**	Std. Units	0.10	0.10	1		11/28/23 16:01		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 15:56	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**3.0**	mg/L	1.0	0.18	5		11/16/23 12:21	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/11/23 00:18	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/11/23 00:18	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**1.3**	mg/L	0.15	0.15	1	11/21/23 10:00	11/21/23 18:19		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.2**	mg/L	1.0	0.24	1		11/22/23 02:52	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.8**	mg/L	1.0	0.24	1		11/21/23 22:48		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Sample: AP-11I **Lab ID: 50359425006** Collected: 11/09/23 14:00 Received: 11/10/23 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.074**	mg/L	0.050	0.0090	1		11/27/23 19:32	24959-67-9	
Chloride	**8.2**	mg/L	0.25	0.067	1		11/27/23 19:32	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/27/23 19:32	16984-48-8	
Sulfate	**368**	mg/L	25.0	19.0	100		11/27/23 19:49	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**1130**	ug/L	100	11.4	1	11/17/23 08:32	11/18/23 12:58	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/17/23 08:32	11/18/23 12:58	7440-43-9	
Calcium	**181000**	ug/L	1000	56.7	1	11/17/23 08:32	11/18/23 12:58	7440-70-2	
Iron	**22300**	ug/L	100	18.1	1	11/17/23 08:32	11/18/23 12:58	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/17/23 08:32	11/18/23 12:58	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/17/23 08:32	11/18/23 12:58	7439-93-2	
Magnesium	**57300**	ug/L	1000	32.8	1	11/17/23 08:32	11/18/23 12:58	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	11/17/23 08:32	11/18/23 12:58	7439-98-7	
Potassium	ND	ug/L	1000	120	1	11/17/23 08:32	11/18/23 12:58	7440-09-7	
Silica	**29000**	ug/L	450		1	11/17/23 08:32	11/18/23 12:58	7631-86-9	N2
Sodium	**8520**	ug/L	1000	48.2	1	11/17/23 08:32	11/18/23 12:58	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1080**	ug/L	100	11.4	1	11/21/23 08:24	11/22/23 12:40	7440-42-8	
Iron, Dissolved	**20800**	ug/L	100	18.1	1	11/21/23 08:24	11/22/23 12:40	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	11/21/23 08:24	11/22/23 12:40	7439-93-2	
Magnesium, Dissolved	**53900**	ug/L	1000	32.8	1	11/21/23 08:24	11/22/23 12:40	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	11/21/23 08:24	11/22/23 12:40	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	120	1	11/21/23 08:24	11/22/23 12:40	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**131**	ug/L	10.0	4.4	1	11/18/23 10:16	11/21/23 03:08	7429-90-5	
Arsenic	**1.7**	ug/L	1.0	0.064	1	11/18/23 10:16	11/20/23 09:55	7440-38-2	
Barium	**62.6**	ug/L	1.0	0.067	1	11/18/23 10:16	11/20/23 09:55	7440-39-3	
Cobalt	ND	ug/L	1.0	0.024	1	11/18/23 10:16	11/20/23 09:55	7440-48-4	
Manganese	**6150**	ug/L	50.0	2.2	50	11/18/23 10:16	11/20/23 04:34	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	11/18/23 10:16	11/20/23 09:55	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/20/23 02:07	11/21/23 10:28	7429-90-5	
Manganese, Dissolved	**5980**	ug/L	50.0	9.1	50	11/20/23 02:07	11/22/23 04:23	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Sample: AP-11I **Lab ID: 50359425006** Collected: 11/09/23 14:00 Received: 11/10/23 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**311**	mg/L	10.0	10.0	1		11/16/23 20:30		
Alkalinity,Bicarbonate (CaCO3)	**311**	mg/L	10.0	10.0	1		11/16/23 20:30		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/16/23 20:30		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**872**	mg/L	10.0	10.0	1		11/16/23 15:18		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.6**	Std. Units	0.10	0.10	1		11/28/23 16:02		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 15:56	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**5.7**	mg/L	1.0	0.18	5		11/16/23 12:23	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/11/23 00:27	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/11/23 00:27	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**1.6**	mg/L	0.15	0.15	1	11/21/23 10:00	11/21/23 18:20		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.7**	mg/L	1.0	0.24	1		11/22/23 03:18	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.0**	mg/L	1.0	0.24	1		11/21/23 22:58		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Sample: AP-11B **Lab ID: 50359425007** Collected: 11/09/23 15:35 Received: 11/10/23 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	ND	mg/L	0.050	0.0090	1		11/27/23 20:06	24959-67-9	
Chloride	**5.0**	mg/L	0.25	0.067	1		11/27/23 20:06	16887-00-6	
Fluoride	**0.11**	mg/L	0.10	0.017	1		11/27/23 20:06	16984-48-8	
Sulfate	**359**	mg/L	25.0	19.0	100		11/27/23 20:23	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**861**	ug/L	100	11.4	1	11/17/23 08:32	11/18/23 13:00	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/17/23 08:32	11/18/23 13:00	7440-43-9	
Calcium	**160000**	ug/L	1000	56.7	1	11/17/23 08:32	11/18/23 13:00	7440-70-2	
Iron	**874**	ug/L	100	18.1	1	11/17/23 08:32	11/18/23 13:00	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/17/23 08:32	11/18/23 13:00	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/17/23 08:32	11/18/23 13:00	7439-93-2	
Magnesium	**54100**	ug/L	1000	32.8	1	11/17/23 08:32	11/18/23 13:00	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	11/17/23 08:32	11/18/23 13:00	7439-98-7	
Potassium	ND	ug/L	1000	120	1	11/17/23 08:32	11/18/23 13:00	7440-09-7	
Silica	**19600**	ug/L	450		1	11/17/23 08:32	11/18/23 13:00	7631-86-9	N2
Sodium	**9950**	ug/L	1000	48.2	1	11/17/23 08:32	11/18/23 13:00	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**838**	ug/L	100	11.4	1	11/21/23 08:24	11/22/23 12:42	7440-42-8	
Iron, Dissolved	**764**	ug/L	100	18.1	1	11/21/23 08:24	11/22/23 12:42	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	11/21/23 08:24	11/22/23 12:42	7439-93-2	
Magnesium, Dissolved	**52100**	ug/L	1000	32.8	1	11/21/23 08:24	11/22/23 12:42	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	11/21/23 08:24	11/22/23 12:42	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	120	1	11/21/23 08:24	11/22/23 12:42	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**58.0**	ug/L	10.0	4.4	1	11/18/23 10:16	11/21/23 03:12	7429-90-5	
Arsenic	ND	ug/L	1.0	0.064	1	11/18/23 10:16	11/20/23 09:58	7440-38-2	
Barium	**17.3**	ug/L	1.0	0.067	1	11/18/23 10:16	11/20/23 09:58	7440-39-3	
Cobalt	**1.1**	ug/L	1.0	0.024	1	11/18/23 10:16	11/20/23 09:58	7440-48-4	
Manganese	**546**	ug/L	5.0	0.22	5	11/18/23 10:16	11/20/23 04:37	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	11/18/23 10:16	11/20/23 09:58	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/20/23 02:07	11/21/23 10:32	7429-90-5	
Manganese, Dissolved	**597**	ug/L	10.0	1.8	10	11/20/23 02:07	11/22/23 04:27	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Sample: AP-11B **Lab ID: 50359425007** Collected: 11/09/23 15:35 Received: 11/10/23 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**280**	mg/L	10.0	10.0	1		11/16/23 20:30		
Alkalinity,Bicarbonate (CaCO3)	**280**	mg/L	10.0	10.0	1		11/16/23 20:30		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/16/23 20:30		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**794**	mg/L	10.0	10.0	1		11/16/23 15:19		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.5**	Std. Units	0.10	0.10	1		11/28/23 16:02		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 15:56	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**0.30**	mg/L	0.20	0.035	1		11/16/23 12:24	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/11/23 00:33	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/11/23 00:33	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.25**	mg/L	0.15	0.15	1	11/21/23 10:00	11/21/23 18:23		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.0**	mg/L	1.0	0.24	1		11/22/23 03:43	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.3**	mg/L	1.0	0.24	1		11/21/23 23:15		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

QC Batch: 763720
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359425001, 50359425002, 50359425003, 50359425004, 50359425005, 50359425006, 50359425007

METHOD BLANK: 3500895 Matrix: Water
Associated Lab Samples: 50359425001, 50359425002, 50359425003, 50359425004, 50359425005, 50359425006, 50359425007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	11/22/23 10:56	
Chloride	mg/L	ND	0.25	0.067	11/22/23 10:56	
Fluoride	mg/L	ND	0.10	0.017	11/22/23 10:56	
Sulfate	mg/L	ND	0.25	0.19	11/22/23 10:56	

LABORATORY CONTROL SAMPLE: 3500896

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.98	98	80-120	
Chloride	mg/L	2.5	2.4	95	80-120	
Fluoride	mg/L	1	0.99	99	80-120	
Sulfate	mg/L	5	4.7	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3500897 3500898

Parameter	Units	50359387004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	0.28	1	1	1.2	1.2	93	93	80-120	0	15	
Chloride	mg/L	31.6	25	25	54.6	54.5	92	92	80-120	0	15	
Fluoride	mg/L	ND	1	1	1.1	1.1	97	98	80-120	0	15	
Sulfate	mg/L	773	500	500	1220	1220	89	90	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

QC Batch: 762715
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359425001, 50359425002, 50359425003, 50359425004, 50359425005, 50359425006, 50359425007

METHOD BLANK: 3495966 Matrix: Water
Associated Lab Samples: 50359425001, 50359425002, 50359425003, 50359425004, 50359425005, 50359425006, 50359425007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	11.4	11/18/23 12:16	
Cadmium	ug/L	ND	2.0	0.74	11/18/23 12:16	
Calcium	ug/L	ND	1000	56.7	11/18/23 12:16	
Iron	ug/L	ND	100	18.1	11/18/23 12:16	
Lead	ug/L	ND	10.0	4.0	11/18/23 12:16	
Lithium	ug/L	ND	20.0	5.1	11/18/23 12:16	
Magnesium	ug/L	ND	1000	32.8	11/18/23 12:16	
Molybdenum	ug/L	ND	10.0	1.1	11/18/23 12:16	
Potassium	ug/L	ND	1000	120	11/18/23 12:16	
Silica	ug/L	ND	450		11/18/23 12:16	N2
Sodium	ug/L	ND	1000	48.2	11/18/23 12:16	

LABORATORY CONTROL SAMPLE: 3495967

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	1010	101	80-120	
Cadmium	ug/L	1000	966	97	80-120	
Calcium	ug/L	10000	10000	100	80-120	
Iron	ug/L	10000	9920	99	80-120	
Lead	ug/L	1000	938	94	80-120	
Lithium	ug/L	1000	994	99	80-120	
Magnesium	ug/L	10000	9930	99	80-120	
Molybdenum	ug/L	1000	1010	101	80-120	
Potassium	ug/L	10000	9580	96	80-120	
Silica	ug/L	10700	10600	99	80-120	N2
Sodium	ug/L	10000	9820	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495968 3495969

Parameter	Units	50359369004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	5530	1000	1000	6430	6500	89	97	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	957	971	96	97	75-125	1	20	
Calcium	ug/L	360000	10000	10000	357000	362000	-25	19	75-125	1	20	E,P6
Iron	ug/L	ND	10000	10000	9420	9630	94	96	75-125	2	20	
Lead	ug/L	ND	1000	1000	872	888	87	89	75-125	2	20	
Lithium	ug/L	ND	1000	1000	989	1000	98	99	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495968 3495969

Parameter	Units	50359369004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Magnesium	ug/L	40800	10000	10000	49000	49600	82	88	75-125	1	20	
Molybdenum	ug/L	65.5	1000	1000	1060	1080	100	101	75-125	2	20	
Potassium	ug/L	8910	10000	10000	18100	18500	92	96	75-125	2	20	
Silica	ug/L	13200	10700	10700	23300	23600	95	98	75-125	2	20	N2
Sodium	ug/L	23600	10000	10000	32600	32800	90	92	75-125	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495970 3495971

Parameter	Units	50359387004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	5500	1000	1000	6700	6640	120	114	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	982	993	98	99	75-125	1	20	
Calcium	ug/L	380000	10000	10000	391000	389000	111	95	75-125	0	20	
Iron	ug/L	ND	10000	10000	9800	9840	98	98	75-125	0	20	
Lead	ug/L	ND	1000	1000	900	910	90	91	75-125	1	20	
Lithium	ug/L	ND	1000	1000	1010	1020	100	101	75-125	1	20	
Magnesium	ug/L	40400	10000	10000	51100	50700	107	103	75-125	1	20	
Molybdenum	ug/L	65.6	1000	1000	1090	1100	103	104	75-125	1	20	
Potassium	ug/L	8960	10000	10000	18900	19000	99	100	75-125	0	20	
Silica	ug/L	13100	10700	10700	24300	24200	104	104	75-125	0	20	N2
Sodium	ug/L	23700	10000	10000	33900	33700	102	100	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

QC Batch: 763258
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359425001, 50359425002, 50359425003, 50359425004, 50359425005, 50359425006, 50359425007

METHOD BLANK: 3498426 Matrix: Water
Associated Lab Samples: 50359425001, 50359425002, 50359425003, 50359425004, 50359425005, 50359425006, 50359425007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	11.4	11/22/23 12:22	
Iron, Dissolved	ug/L	ND	100	18.1	11/22/23 12:22	
Lithium, Dissolved	ug/L	ND	20.0	5.1	11/22/23 12:22	
Magnesium, Dissolved	ug/L	ND	1000	32.8	11/22/23 12:22	
Molybdenum, Dissolved	ug/L	ND	10.0	1.1	11/22/23 12:22	
Potassium, Dissolved	ug/L	ND	1000	120	11/22/23 12:22	

LABORATORY CONTROL SAMPLE: 3498427

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	958	96	80-120	
Iron, Dissolved	ug/L	10000	9740	97	80-120	
Lithium, Dissolved	ug/L	1000	1000	100	80-120	
Magnesium, Dissolved	ug/L	10000	9550	95	80-120	
Molybdenum, Dissolved	ug/L	1000	987	99	80-120	
Potassium, Dissolved	ug/L	10000	9420	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498428 3498429

Parameter	Units	50359425001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	10900	1000	1000	11500	11400	54	49	75-125	0	20	P6
Iron, Dissolved	ug/L	5680	10000	10000	14900	15000	92	93	75-125	1	20	
Lithium, Dissolved	ug/L	72.7	1000	1000	1070	1080	100	101	75-125	1	20	
Magnesium, Dissolved	ug/L	39500	10000	10000	46800	46800	73	73	75-125	0	20	M3
Molybdenum, Dissolved	ug/L	165	1000	1000	1150	1160	99	99	75-125	1	20	
Potassium, Dissolved	ug/L	17500	10000	10000	25900	26500	84	90	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

QC Batch: 763694
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359425001, 50359425002, 50359425003, 50359425004, 50359425005, 50359425006, 50359425007

METHOD BLANK: 3500698 Matrix: Water
Associated Lab Samples: 50359425001, 50359425002, 50359425003, 50359425004, 50359425005, 50359425006, 50359425007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	4.4	11/20/23 03:25	
Arsenic	ug/L	ND	1.0	0.064	11/20/23 03:25	
Barium	ug/L	ND	1.0	0.067	11/20/23 03:25	
Cobalt	ug/L	ND	1.0	0.024	11/20/23 03:25	
Manganese	ug/L	ND	1.0	0.043	11/20/23 03:25	
Selenium	ug/L	ND	1.0	0.23	11/20/23 03:25	

LABORATORY CONTROL SAMPLE: 3500699

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	422	105	80-120	
Arsenic	ug/L	40	38.0	95	80-120	
Barium	ug/L	40	38.4	96	80-120	
Cobalt	ug/L	40	40.4	101	80-120	
Manganese	ug/L	40	40.8	102	80-120	
Selenium	ug/L	40	39.5	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3500700 3500701

Parameter	Units	50359387004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	ND	400	400	378	383	93	94	75-125	1	20	
Arsenic	ug/L	ND	40	40	38.2	37.8	95	94	75-125	1	20	
Barium	ug/L	42.9	40	40	82.6	85.3	99	106	75-125	3	20	
Cobalt	ug/L	ND	40	40	38.1	38.8	93	95	75-125	2	20	
Manganese	ug/L	1680	40	40	1690	1710	24	84	75-125	1	20	P6
Selenium	ug/L	2.0	40	40	41.3	41.5	98	99	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

QC Batch: 763783
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359425001, 50359425002, 50359425003, 50359425004, 50359425005, 50359425006, 50359425007

METHOD BLANK: 3501276 Matrix: Water
Associated Lab Samples: 50359425001, 50359425002, 50359425003, 50359425004, 50359425005, 50359425006, 50359425007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.8	11/21/23 09:32	
Manganese, Dissolved	ug/L	ND	1.0	0.18	11/21/23 09:32	

LABORATORY CONTROL SAMPLE: 3501277

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	399	100	80-120	
Manganese, Dissolved	ug/L	40	41.6	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3501278 3501279

Parameter	Units	50359566001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	379	380	94	95	75-125	0	20	
Manganese, Dissolved	ug/L	77.1	40	40	115	116	94	97	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

QC Batch: 763474
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359425001, 50359425002, 50359425003, 50359425004, 50359425005, 50359425006, 50359425007

METHOD BLANK: 3499592 Matrix: Water
Associated Lab Samples: 50359425001, 50359425002, 50359425003, 50359425004, 50359425005, 50359425006, 50359425007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/16/23 20:30	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/16/23 20:30	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/16/23 20:30	

LABORATORY CONTROL SAMPLE: 3499593

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.7	99	90-110	

SAMPLE DUPLICATE: 3499594

Parameter	Units	50359425001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	120	122	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	120	122	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3499595

Parameter	Units	50359483006 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	284	291	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	284	291	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

QC Batch: 763078 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359425001, 50359425002, 50359425003, 50359425004, 50359425005, 50359425006, 50359425007

METHOD BLANK: 3497403 Matrix: Water
Associated Lab Samples: 50359425001, 50359425002, 50359425003, 50359425004, 50359425005, 50359425006, 50359425007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/16/23 15:14	

LABORATORY CONTROL SAMPLE: 3497404

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	268	89	80-120	

SAMPLE DUPLICATE: 3497405

Parameter	Units	50359387004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1620	1560	4	10	

SAMPLE DUPLICATE: 3497406

Parameter	Units	50359442017 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1530	1590	4	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

QC Batch: 765044
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359425001, 50359425002, 50359425003, 50359425004, 50359425005, 50359425006, 50359425007

SAMPLE DUPLICATE: 3506067

Parameter	Units	50359359001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.1	8.2	1	2	H3

SAMPLE DUPLICATE: 3506068

Parameter	Units	50359387004 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.1	0	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

QC Batch: 762916 | Analysis Method: SM 4500-S2-D
QC Batch Method: SM 4500-S2-D | Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359425001, 50359425002, 50359425003, 50359425004, 50359425005, 50359425006, 50359425007

METHOD BLANK: 3496645 Matrix: Water
Associated Lab Samples: 50359425001, 50359425002, 50359425003, 50359425004, 50359425005, 50359425006, 50359425007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/14/23 15:56	

LABORATORY CONTROL SAMPLE: 3496646

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.53	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3496647 3496648

Parameter	Units	50359369004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	0.14	0.5	0.5	0.54	0.54	78	79	90-110	0	20	M3

MATRIX SPIKE SAMPLE: 3496649

Parameter	Units	50359451001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.33	65	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

QC Batch: 763332 | Analysis Method: HACH 8146
QC Batch Method: HACH 8146 | Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359425001, 50359425002, 50359425003, 50359425004, 50359425005, 50359425006, 50359425007

METHOD BLANK: 3498756 Matrix: Water
Associated Lab Samples: 50359425001, 50359425002, 50359425003, 50359425004, 50359425005, 50359425006, 50359425007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/16/23 12:20	H3,N2

LABORATORY CONTROL SAMPLE: 3498757

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	0.99	99	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498758 3498759

Parameter	Units	50359425001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	0.34	1	1	1.5	1.5	114	121	90-110	5	20	H3,M3, N2

MATRIX SPIKE SAMPLE: 3498760

Parameter	Units	50359451001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1.7	5	6.6	98	90-110	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

QC Batch: 762273 | Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 | Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359425001, 50359425002, 50359425003, 50359425004, 50359425005, 50359425006, 50359425007

METHOD BLANK: 3494306 Matrix: Water
Associated Lab Samples: 50359425001, 50359425002, 50359425003, 50359425004, 50359425005, 50359425006, 50359425007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/11/23 00:03	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/11/23 00:03	

LABORATORY CONTROL SAMPLE: 3494307

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	102	90-110	
Nitrogen, Nitrite	mg/L	1	1.1	106	90-110	

MATRIX SPIKE SAMPLE: 3494308

Parameter	Units	50359425007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.0	99	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.1	106	90-110	

MATRIX SPIKE SAMPLE: 3494309

Parameter	Units	50359369004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	4.3	5	9.6	105	90-110	
Nitrogen, Nitrite	mg/L	ND	5	5.3	105	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

QC Batch: 763916
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359425001, 50359425002, 50359425003

METHOD BLANK: 3501901 Matrix: Water
Associated Lab Samples: 50359425001, 50359425002, 50359425003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	11/21/23 19:12	

LABORATORY CONTROL SAMPLE: 3501902

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3501903 3501904

Parameter	Units	50359374003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	1.3			2.9	2.8				1		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

QC Batch: 764164
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359425004, 50359425005, 50359425006, 50359425007

METHOD BLANK: 3502785 Matrix: Water
Associated Lab Samples: 50359425004, 50359425005, 50359425006, 50359425007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	11/21/23 18:15	

LABORATORY CONTROL SAMPLE: 3502786

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE SAMPLE: 3502789

Parameter	Units	50359425005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	1.3		3.1			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3502850 3502851

Parameter	Units	50359425006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	1.6			3.2	3.2				0		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

QC Batch: 764033 | Analysis Method: SM 5310C
QC Batch Method: SM 5310C | Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359425001, 50359425002, 50359425003, 50359425004, 50359425005, 50359425006, 50359425007

METHOD BLANK: 3502334 Matrix: Water
Associated Lab Samples: 50359425001, 50359425002, 50359425003, 50359425004, 50359425005, 50359425006, 50359425007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	11/21/23 21:15	

LABORATORY CONTROL SAMPLE: 3502335

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3502336 3502337

Parameter	Units	50359369004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	ND	10	10	10.5	10.6	98	99	80-120	1	20	

MATRIX SPIKE SAMPLE: 3502338

Parameter	Units	50359425001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.8	10	11.8	100	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

QC Batch: 764235 | Analysis Method: SM 5310C
QC Batch Method: SM 5310C | Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359425001, 50359425002, 50359425003, 50359425004, 50359425005, 50359425006, 50359425007

METHOD BLANK: 3503004 Matrix: Water
Associated Lab Samples: 50359425001, 50359425002, 50359425003, 50359425004, 50359425005, 50359425006, 50359425007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	11/21/23 20:40	

LABORATORY CONTROL SAMPLE: 3503005

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503006 3503007

Parameter	Units	50359374003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	3.5	10	10	12.6	12.4	91	89	80-120	1	20	

MATRIX SPIKE SAMPLE: 3503008

Parameter	Units	50359425001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	4.4	10	14.0	96	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Sample: MW-21A **Lab ID: 50359425001** Collected: 11/09/23 12:00 Received: 11/10/23 10:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.219 ± 0.341 (0.590) C:NA T:93%**	pCi/L	12/07/23 13:54	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.779 ± 0.389 (0.676) C:84% T:83%**	pCi/L	12/04/23 11:50	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.998 ± 0.730 (1.27)**	pCi/L	12/07/23 16:23	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Sample: MW-21I **Lab ID: 50359425002** Collected: 11/09/23 14:15 Received: 11/10/23 10:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.192 ± 0.378 (0.691) C:NA T:86%**	pCi/L	12/07/23 13:54	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.633 ± 0.365 (0.663) C:83% T:82%**	pCi/L	12/04/23 11:50	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.825 ± 0.743 (1.35)**	pCi/L	12/07/23 16:23	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Sample: MW-21B **Lab ID: 50359425003** Collected: 11/09/23 16:00 Received: 11/10/23 10:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.192 ± 0.416 (0.768) C:NA T:83%**	pCi/L	12/07/23 13:54	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.02 ± 0.453 (0.744) C:84% T:76%**	pCi/L	12/04/23 11:50	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.21 ± 0.869 (1.51)**	pCi/L	12/07/23 16:23	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Sample: BLIND DUP 7 **Lab ID: 50359425004** Collected: 11/09/23 08:00 Received: 11/10/23 10:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.564 ± 0.447 (0.607) C:NA T:88%**	pCi/L	12/07/23 13:54	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.891 ± 0.583 (1.12) C:72% T:77%**	pCi/L	12/04/23 15:23	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.46 ± 1.03 (1.73)**	pCi/L	12/07/23 16:23	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Sample: AP-11A **Lab ID: 50359425005** Collected: 11/09/23 11:20 Received: 11/10/23 10:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.46 ± 0.734 (0.799) C:NA T:87%**	pCi/L	12/07/23 13:54	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**-0.0711 ± 0.406 (0.962) C:73% T:79%**	pCi/L	12/04/23 15:23	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.46 ± 1.14 (1.76)**	pCi/L	12/07/23 16:23	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Sample: AP-11I **Lab ID: 50359425006** Collected: 11/09/23 14:00 Received: 11/10/23 10:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.0795 ± 0.517 (1.12) C:NA T:79%**	pCi/L	12/07/23 13:54	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.0917 ± 0.476 (1.08) C:64% T:82%**	pCi/L	12/04/23 15:23	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.0917 ± 0.993 (2.20)**	pCi/L	12/07/23 16:23	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Sample: AP-11B **Lab ID: 50359425007** Collected: 11/09/23 15:35 Received: 11/10/23 10:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.184 ± 0.497 (0.922) C:NA T:84%**	pCi/L	12/07/23 13:54	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.779 ± 0.527 (1.02) C:76% T:78%**	pCi/L	12/04/23 15:24	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.963 ± 1.02 (1.94)**	pCi/L	12/07/23 16:23	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

QC Batch: 630812
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359425001, 50359425002, 50359425003, 50359425004, 50359425005, 50359425006, 50359425007

METHOD BLANK: 3075667
Matrix: Water
Associated Lab Samples: 50359425001, 50359425002, 50359425003, 50359425004, 50359425005, 50359425006, 50359425007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.271 ± 0.332 (0.703) C:87% T:83%	pCi/L	12/04/23 11:49	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

QC Batch: 630811
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359425001, 50359425002, 50359425003, 50359425004, 50359425005, 50359425006, 50359425007

METHOD BLANK: 3075665
Matrix: Water
Associated Lab Samples: 50359425001, 50359425002, 50359425003, 50359425004, 50359425005, 50359425006, 50359425007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.399 ± 0.292 (0.326) C:NA T:90%	pCi/L	12/07/23 13:41	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359425001	**MW-21A**	EPA 9056	763720		
50359425002	**MW-21I**	EPA 9056	763720		
50359425003	**MW-21B**	EPA 9056	763720		
50359425004	**BLIND DUP 7**	EPA 9056	763720		
50359425005	**AP-11A**	EPA 9056	763720		
50359425006	**AP-11I**	EPA 9056	763720		
50359425007	**AP-11B**	EPA 9056	763720		
50359425001	**MW-21A**	EPA 3010	762715	EPA 6010	763791
50359425002	**MW-21I**	EPA 3010	762715	EPA 6010	763791
50359425003	**MW-21B**	EPA 3010	762715	EPA 6010	763791
50359425004	**BLIND DUP 7**	EPA 3010	762715	EPA 6010	763791
50359425005	**AP-11A**	EPA 3010	762715	EPA 6010	763791
50359425006	**AP-11I**	EPA 3010	762715	EPA 6010	763791
50359425007	**AP-11B**	EPA 3010	762715	EPA 6010	763791
50359425001	**MW-21A**	EPA 3010	763258	EPA 6010	764546
50359425002	**MW-21I**	EPA 3010	763258	EPA 6010	764546
50359425003	**MW-21B**	EPA 3010	763258	EPA 6010	764546
50359425004	**BLIND DUP 7**	EPA 3010	763258	EPA 6010	764546
50359425005	**AP-11A**	EPA 3010	763258	EPA 6010	764546
50359425006	**AP-11I**	EPA 3010	763258	EPA 6010	764546
50359425007	**AP-11B**	EPA 3010	763258	EPA 6010	764546
50359425001	**MW-21A**	EPA 200.2	763694	EPA 6020	763808
50359425002	**MW-21I**	EPA 200.2	763694	EPA 6020	763808
50359425003	**MW-21B**	EPA 200.2	763694	EPA 6020	763808
50359425004	**BLIND DUP 7**	EPA 200.2	763694	EPA 6020	763808
50359425005	**AP-11A**	EPA 200.2	763694	EPA 6020	763808
50359425006	**AP-11I**	EPA 200.2	763694	EPA 6020	763808
50359425007	**AP-11B**	EPA 200.2	763694	EPA 6020	763808
50359425001	**MW-21A**	EPA 200.2	763783	EPA 6020	764101
50359425002	**MW-21I**	EPA 200.2	763783	EPA 6020	764101
50359425003	**MW-21B**	EPA 200.2	763783	EPA 6020	764101
50359425004	**BLIND DUP 7**	EPA 200.2	763783	EPA 6020	764101
50359425005	**AP-11A**	EPA 200.2	763783	EPA 6020	764101
50359425006	**AP-11I**	EPA 200.2	763783	EPA 6020	764101
50359425007	**AP-11B**	EPA 200.2	763783	EPA 6020	764101
50359425001	**MW-21A**	EPA 903.1	630811		
50359425002	**MW-21I**	EPA 903.1	630811		
50359425003	**MW-21B**	EPA 903.1	630811		
50359425004	**BLIND DUP 7**	EPA 903.1	630811		
50359425005	**AP-11A**	EPA 903.1	630811		
50359425006	**AP-11I**	EPA 903.1	630811		
50359425007	**AP-11B**	EPA 903.1	630811		
50359425001	**MW-21A**	EPA 904.0	630812		
50359425002	**MW-21I**	EPA 904.0	630812		
50359425003	**MW-21B**	EPA 904.0	630812		
50359425004	**BLIND DUP 7**	EPA 904.0	630812		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359425005	**AP-11A**	EPA 904.0	630812		
50359425006	**AP-11I**	EPA 904.0	630812		
50359425007	**AP-11B**	EPA 904.0	630812		
50359425001	**MW-21A**	Total Radium Calculation	634634		
50359425002	**MW-21I**	Total Radium Calculation	634634		
50359425003	**MW-21B**	Total Radium Calculation	634634		
50359425004	**BLIND DUP 7**	Total Radium Calculation	634634		
50359425005	**AP-11A**	Total Radium Calculation	634634		
50359425006	**AP-11I**	Total Radium Calculation	634634		
50359425007	**AP-11B**	Total Radium Calculation	634634		
50359425001	**MW-21A**	SM 2320B	763474		
50359425002	**MW-21I**	SM 2320B	763474		
50359425003	**MW-21B**	SM 2320B	763474		
50359425004	**BLIND DUP 7**	SM 2320B	763474		
50359425005	**AP-11A**	SM 2320B	763474		
50359425006	**AP-11I**	SM 2320B	763474		
50359425007	**AP-11B**	SM 2320B	763474		
50359425001	**MW-21A**	SM 2540C	763078		
50359425002	**MW-21I**	SM 2540C	763078		
50359425003	**MW-21B**	SM 2540C	763078		
50359425004	**BLIND DUP 7**	SM 2540C	763078		
50359425005	**AP-11A**	SM 2540C	763078		
50359425006	**AP-11I**	SM 2540C	763078		
50359425007	**AP-11B**	SM 2540C	763078		
50359425001	**MW-21A**	SM 4500-H+B	765044		
50359425002	**MW-21I**	SM 4500-H+B	765044		
50359425003	**MW-21B**	SM 4500-H+B	765044		
50359425004	**BLIND DUP 7**	SM 4500-H+B	765044		
50359425005	**AP-11A**	SM 4500-H+B	765044		
50359425006	**AP-11I**	SM 4500-H+B	765044		
50359425007	**AP-11B**	SM 4500-H+B	765044		
50359425001	**MW-21A**	SM 4500-S2-D	762916		
50359425002	**MW-21I**	SM 4500-S2-D	762916		
50359425003	**MW-21B**	SM 4500-S2-D	762916		
50359425004	**BLIND DUP 7**	SM 4500-S2-D	762916		
50359425005	**AP-11A**	SM 4500-S2-D	762916		
50359425006	**AP-11I**	SM 4500-S2-D	762916		
50359425007	**AP-11B**	SM 4500-S2-D	762916		
50359425001	**MW-21A**	HACH 8146	763332		
50359425002	**MW-21I**	HACH 8146	763332		
50359425003	**MW-21B**	HACH 8146	763332		
50359425004	**BLIND DUP 7**	HACH 8146	763332		
50359425005	**AP-11A**	HACH 8146	763332		
50359425006	**AP-11I**	HACH 8146	763332		
50359425007	**AP-11B**	HACH 8146	763332		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359425

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359425001	**MW-21A**	EPA 353.2	762273		
50359425002	**MW-21I**	EPA 353.2	762273		
50359425003	**MW-21B**	EPA 353.2	762273		
50359425004	**BLIND DUP 7**	EPA 353.2	762273		
50359425005	**AP-11A**	EPA 353.2	762273		
50359425006	**AP-11I**	EPA 353.2	762273		
50359425007	**AP-11B**	EPA 353.2	762273		
50359425001	**MW-21A**	EPA 365.1	763916	EPA 365.1	764405
50359425002	**MW-21I**	EPA 365.1	763916	EPA 365.1	764405
50359425003	**MW-21B**	EPA 365.1	763916	EPA 365.1	764405
50359425004	**BLIND DUP 7**	EPA 365.1	764164	EPA 365.1	764401
50359425005	**AP-11A**	EPA 365.1	764164	EPA 365.1	764401
50359425006	**AP-11I**	EPA 365.1	764164	EPA 365.1	764401
50359425007	**AP-11B**	EPA 365.1	764164	EPA 365.1	764401
50359425001	**MW-21A**	SM 5310C	764033		
50359425002	**MW-21I**	SM 5310C	764033		
50359425003	**MW-21B**	SM 5310C	764033		
50359425004	**BLIND DUP 7**	SM 5310C	764033		
50359425005	**AP-11A**	SM 5310C	764033		
50359425006	**AP-11I**	SM 5310C	764033		
50359425007	**AP-11B**	SM 5310C	764033		
50359425001	**MW-21A**	SM 5310C	764235		
50359425002	**MW-21I**	SM 5310C	764235		
50359425003	**MW-21B**	SM 5310C	764235		
50359425004	**BLIND DUP 7**	SM 5310C	764235		
50359425005	**AP-11A**	SM 5310C	764235		
50359425006	**AP-11I**	SM 5310C	764235		
50359425007	**AP-11B**	SM 5310C	764235		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO# : 50359425

50359425

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Company: Atlas Indianapolis	Project Information:	Section C Invoice Information:	
Address: 7988 Centerpoint Drive Suite 100	Report To: Mark Breting	Attention: Accounts Payable - Paula Sedam	
Indianapolis, IN 46256	Copy To:	Company Name: Atlas Indianapolis	
Email: mark.breting@oneatlas.com		Address:	Regulatory Agency
Phone: (317)579-4082 Fax:	Purchase Order #:	Pace Quote:	
Requested Due Date:	Project Name: Petersburg P4R3 Nov 2023	Pace Project Manager: Will Statz	State / Location
	Project #:	Pace Profile #: 10498/53	IN

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test (Y/N)	TDS/ NO2, NO3 Wet	(Br, Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered** (Y)	Alkalinity*, Ferrous Iron, pH	TOC by 5310C	DOC by 5310C (Y)	Sulfide	Phosphate	Rad-226/228 + Sum	Residual Chlorine (Y/N)
1	MW-21A	WT	G			11-9	1200		11	✓	✓	✓		✓					✓									✓	
2	MW-21I	WT	G			11-9	1415		11	✓	✓	✓		✓					✓									✓	
3	MW-21B	WT	G			11-9	1600		11	✓	✓	✓		✓					✓									✓	
4	Blind Dup 7	WT	G			11-9			11	✓	✓	✓		✓					✓									✓	
5	AP-11A	WT	G	11/9	10:50	11/9	11:20		11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
6	AP-11I	WT	G	11/9	1345	11/9	1400		11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
7	AP-11B	WT	G	11/9	1515	11/9	1535		11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
8																													
9																													
10																													
11																													
12																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
* Metals: 6010 (B, Cd, Fe, Pb, Mo, Ca, Mg, Na, K, Li, sila) (11)	Hayley Tolles	11-9-23	1645	Jay Williams	11-10	8:00 AM				
6020 (Al, Mn, Co, As, Se, Ba) (6)	Jay Williams	11-10	1030 AM	[signature]	11-10-23	1030	0.3	Y	Y	Y
** Dissolved FF 6010 (B, Fe, Mo, Mg, K, Li) (6) FF 6020 (Al, Mn) (2)										
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Hayley Tolles

SIGNATURE of SAMPLER: [signature] DATE Signed: 11-9-23

F-IN-Q-290-rev.23, 26Jun2023

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 11-10-23 1105 CRR

1. **Courier:** ☒ FED EX ☐ UPS ☒ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____ (11-10-23 CRR)
2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No
   (If yes)Seals Intact: ☒ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H
4. **Cooler Temperature(s):** 0.3|0.3 | 0.7|0.7 | 0.8|0.8 | 0.5|0.5
   (Initial/Corrected) **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**
5. **Packing Material:** ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☒ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: ~~HNO3 (<2)~~ ~~H2SO4 (<2)~~ ~~NaOH (>10)~~ ~~NaOH/ZnAc (>9)~~** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? **Analysis:** NO1 NO3	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			—
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			—
				Present	Absent	No VOA Vials Sent
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details			✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID		✓	Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS: All containers for IDs AP-11A, AP-11I, AP-11B use start time not end time (11/10/23 CRR)

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC									OTHER								
			MeOH (only)																											Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
			SBS																											Red	Yellow	Green	Black
			DI																														
COC Line Item	WGFU	WGKU BG1U	R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
1												1	1			2	1	2	1	1	1		1					WT	✓	✓		✓
2																																	
3																																	
4																																	
5																																	
6																																	
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 08, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 10, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50359451001	**MW-43A**	Water	11/10/23 10:37	11/10/23 13:00
50359451002	**MW-43I**	Water	11/10/23 09:21	11/10/23 13:00
50359451003	**MW-42I**	Water	11/10/23 10:30	11/10/23 13:00
50359451004	**DUP-10**	Water	11/10/23 08:00	11/10/23 13:00
50359451005	**MW-42B**	Water	11/10/23 12:45	11/10/23 13:00

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50359451001	**MW-43A**	EPA 9056	ADM	4	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	DMT	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359451002	**MW-43I**	EPA 9056	ADM	4	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	DMT	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359451003	**MW-42I**	EPA 9056	ADM	4	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	MTM	6	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	DMT	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359451004	**DUP-10**	EPA 9056	ADM	4	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	DMT	6	PASI-I
		EPA 6020	DMT, MGM	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359451005	**MW-42B**	EPA 9056	ADM	4	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	DMT	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359451001	**MW-43A**					
EPA 9056	Bromide	0.34	mg/L	0.050	11/23/23 17:11	
EPA 9056	Chloride	109	mg/L	2.5	11/23/23 17:28	
EPA 9056	Sulfate	1290	mg/L	25.0	11/23/23 17:47	
EPA 6010	Boron	12900	ug/L	100	11/21/23 12:55	
EPA 6010	Calcium	521000	ug/L	5000	11/21/23 14:15	
EPA 6010	Iron	8160	ug/L	100	11/21/23 12:55	
EPA 6010	Magnesium	34500	ug/L	1000	11/21/23 12:55	
EPA 6010	Molybdenum	328	ug/L	10.0	11/21/23 12:55	
EPA 6010	Potassium	19800	ug/L	1000	11/21/23 12:55	
EPA 6010	Silica	14400	ug/L	450	11/21/23 12:55	N2
EPA 6010	Sodium	65100	ug/L	1000	11/21/23 12:55	
EPA 6010	Boron, Dissolved	11800	ug/L	100	11/22/23 12:51	
EPA 6010	Iron, Dissolved	7300	ug/L	100	11/22/23 12:51	
EPA 6010	Magnesium, Dissolved	32300	ug/L	1000	11/22/23 12:51	
EPA 6010	Molybdenum, Dissolved	312	ug/L	10.0	11/22/23 12:51	
EPA 6010	Potassium, Dissolved	18400	ug/L	1000	11/22/23 12:51	
EPA 6020	Aluminum	23.4	ug/L	10.0	11/21/23 03:22	
EPA 6020	Arsenic	1.6	ug/L	1.0	11/20/23 10:09	
EPA 6020	Barium	29.3	ug/L	1.0	11/20/23 10:09	
EPA 6020	Manganese	1520	ug/L	10.0	11/20/23 04:48	
EPA 6020	Manganese, Dissolved	1490	ug/L	20.0	11/22/23 04:38	
EPA 903.1	Radium-226	0.488 ± 0.282 (0.110) C:NA T:87%	pCi/L		12/06/23 15:31	
EPA 904.0	Radium-228	0.257 ± 0.313 (0.660) C:89% T:87%	pCi/L		11/29/23 15:18	
Total Radium Calculation	Total Radium	0.745 ± 0.595 (0.770)	pCi/L		12/06/23 16:17	
SM 2320B	Alkalinity, Total as CaCO3	125	mg/L	10.0	11/16/23 20:30	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	125	mg/L	10.0	11/16/23 20:30	
SM 2540C	Total Dissolved Solids	2230	mg/L	20.0	11/16/23 15:41	
SM 4500-H+B	pH at 25 Degrees C	7.0	Std. Units	0.10	11/28/23 16:22	H3
HACH 8146	Iron, Ferrous	1.7	mg/L	0.50	11/16/23 12:28	H3,N2
EPA 365.1	Phosphate as P04	0.59	mg/L	0.15	11/21/23 18:28	
SM 5310C	Total Organic Carbon	1.8	mg/L	1.0	11/22/23 06:02	
SM 5310C	Dissolved Organic Carbon	3.4	mg/L	1.0	11/22/23 00:22	
50359451002	**MW-43I**					
EPA 9056	Bromide	0.45	mg/L	0.050	11/23/23 18:05	
EPA 9056	Chloride	67.8	mg/L	2.5	11/23/23 18:23	
EPA 9056	Sulfate	436	mg/L	2.5	11/23/23 18:23	
EPA 6010	Boron	1610	ug/L	100	11/21/23 12:56	
EPA 6010	Calcium	234000	ug/L	2000	11/21/23 14:16	
EPA 6010	Iron	6890	ug/L	100	11/21/23 12:56	
EPA 6010	Magnesium	48700	ug/L	1000	11/21/23 12:56	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359451002	**MW-43I**					
EPA 6010	Molybdenum	116	ug/L	10.0	11/21/23 12:56	
EPA 6010	Potassium	4760	ug/L	1000	11/21/23 12:56	
EPA 6010	Silica	16900	ug/L	450	11/21/23 12:56	N2
EPA 6010	Sodium	40300	ug/L	1000	11/21/23 12:56	
EPA 6010	Boron, Dissolved	1550	ug/L	100	11/22/23 12:52	
EPA 6010	Iron, Dissolved	6250	ug/L	100	11/22/23 12:52	
EPA 6010	Magnesium, Dissolved	46000	ug/L	1000	11/22/23 12:52	
EPA 6010	Molybdenum, Dissolved	114	ug/L	10.0	11/22/23 12:52	
EPA 6010	Potassium, Dissolved	4730	ug/L	1000	11/22/23 12:52	
EPA 6020	Aluminum	26.5	ug/L	10.0	11/21/23 03:26	
EPA 6020	Arsenic	3.9	ug/L	1.0	11/20/23 10:12	
EPA 6020	Barium	57.6	ug/L	1.0	11/20/23 10:12	
EPA 6020	Manganese	1670	ug/L	10.0	11/20/23 04:51	
EPA 6020	Manganese, Dissolved	1640	ug/L	20.0	11/22/23 04:42	
EPA 903.1	Radium-226	0.494 ± 0.458 (0.697) C:NA T:82%	pCi/L		12/06/23 15:31	
EPA 904.0	Radium-228	0.765 ± 0.491 (0.949) C:85% T:82%	pCi/L		11/29/23 15:18	
Total Radium Calculation	Total Radium	1.26 ± 0.949 (1.65)	pCi/L		12/06/23 16:17	
SM 2320B	Alkalinity, Total as CaCO3	383	mg/L	10.0	11/16/23 20:30	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	383	mg/L	10.0	11/16/23 20:30	
SM 2540C	Total Dissolved Solids	1080	mg/L	10.0	11/16/23 15:42	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	11/28/23 16:22	H3
HACH 8146	Iron, Ferrous	0.54	mg/L	0.20	11/16/23 12:27	H3,N2
EPA 365.1	Phosphate as P04	0.41	mg/L	0.15	11/21/23 18:28	
SM 5310C	Total Organic Carbon	1.8	mg/L	1.0	11/22/23 06:22	
SM 5310C	Dissolved Organic Carbon	3.2	mg/L	1.0	11/22/23 00:33	
50359451003	**MW-42I**					
EPA 9056	Bromide	0.89	mg/L	0.050	11/23/23 20:14	
EPA 9056	Chloride	79.3	mg/L	2.5	11/23/23 20:32	
EPA 9056	Sulfate	962	mg/L	25.0	11/23/23 20:50	
EPA 6010	Boron	16300	ug/L	100	11/21/23 12:58	
EPA 6010	Calcium	448000	ug/L	5000	11/21/23 14:20	
EPA 6010	Iron	12600	ug/L	100	11/21/23 12:58	
EPA 6010	Lithium	59.2	ug/L	20.0	11/21/23 12:58	
EPA 6010	Magnesium	32600	ug/L	1000	11/21/23 12:58	
EPA 6010	Molybdenum	339	ug/L	10.0	11/21/23 12:58	
EPA 6010	Potassium	23500	ug/L	1000	11/21/23 12:58	
EPA 6010	Silica	15800	ug/L	450	11/21/23 12:58	N2
EPA 6010	Sodium	35500	ug/L	1000	11/21/23 12:58	
EPA 6010	Boron, Dissolved	15900	ug/L	100	11/22/23 12:54	
EPA 6010	Iron, Dissolved	11400	ug/L	100	11/22/23 12:54	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359451003	**MW-42I**					
EPA 6010	Lithium, Dissolved	57.4	ug/L	20.0	11/22/23 12:54	
EPA 6010	Magnesium, Dissolved	30200	ug/L	1000	11/22/23 12:54	
EPA 6010	Molybdenum, Dissolved	375	ug/L	10.0	11/22/23 12:54	
EPA 6010	Potassium, Dissolved	23600	ug/L	1000	11/22/23 12:54	
EPA 6020	Barium	37.2	ug/L	1.0	11/20/23 10:16	
EPA 6020	Manganese	3670	ug/L	25.0	11/20/23 04:55	
EPA 6020	Manganese, Dissolved	3650	ug/L	50.0	11/22/23 04:46	
EPA 903.1	Radium-226	0.295 ± 0.517 (0.897) C:NA T:87%	pCi/L		12/06/23 15:31	
EPA 904.0	Radium-228	0.897 ± 0.494 (0.907) C:78% T:87%	pCi/L		11/29/23 15:18	
Total Radium Calculation	Total Radium	1.19 ± 1.01 (1.80)	pCi/L		12/06/23 16:17	
SM 2320B	Alkalinity, Total as CaCO3	225	mg/L	10.0	11/16/23 20:30	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	225	mg/L	10.0	11/16/23 20:30	
SM 2540C	Total Dissolved Solids	1800	mg/L	20.0	11/17/23 10:41	
SM 4500-H+B	pH at 25 Degrees C	7.0	Std. Units	0.10	11/28/23 16:23	H3
HACH 8146	Iron, Ferrous	2.4	mg/L	0.50	11/16/23 12:27	H3,N2
EPA 365.1	Phosphate as P04	0.42	mg/L	0.15	11/21/23 18:29	
SM 5310C	Total Organic Carbon	1.6	mg/L	1.0	11/22/23 06:54	
SM 5310C	Dissolved Organic Carbon	2.3	mg/L	1.0	11/22/23 00:44	
50359451004	**DUP-10**					
EPA 9056	Bromide	0.87	mg/L	0.050	11/23/23 21:09	
EPA 9056	Chloride	81.2	mg/L	2.5	11/23/23 21:27	
EPA 9056	Sulfate	999	mg/L	25.0	11/23/23 21:45	
EPA 6010	Boron	16800	ug/L	100	11/21/23 12:59	
EPA 6010	Calcium	456000	ug/L	5000	11/21/23 14:22	
EPA 6010	Iron	12100	ug/L	100	11/21/23 12:59	
EPA 6010	Lithium	58.5	ug/L	20.0	11/21/23 12:59	
EPA 6010	Magnesium	31500	ug/L	1000	11/21/23 12:59	
EPA 6010	Molybdenum	388	ug/L	10.0	11/21/23 12:59	
EPA 6010	Potassium	24500	ug/L	1000	11/21/23 12:59	
EPA 6010	Silica	15500	ug/L	450	11/21/23 12:59	N2
EPA 6010	Sodium	36200	ug/L	1000	11/21/23 12:59	
EPA 6010	Boron, Dissolved	15800	ug/L	100	11/22/23 12:55	
EPA 6010	Iron, Dissolved	11000	ug/L	100	11/22/23 12:55	
EPA 6010	Lithium, Dissolved	57.1	ug/L	20.0	11/22/23 12:55	
EPA 6010	Magnesium, Dissolved	29100	ug/L	1000	11/22/23 12:55	
EPA 6010	Molybdenum, Dissolved	379	ug/L	10.0	11/22/23 12:55	
EPA 6010	Potassium, Dissolved	23100	ug/L	1000	11/22/23 12:55	
EPA 6020	Barium	37.3	ug/L	1.0	11/20/23 10:26	
EPA 6020	Manganese	3560	ug/L	25.0	11/20/23 04:58	
EPA 6020	Manganese, Dissolved	3610	ug/L	50.0	11/28/23 01:21	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359451004	**DUP-10**					
EPA 903.1	Radium-226	0.704 ± 0.534 (0.782) C:NA T:83%	pCi/L		12/06/23 15:31	
EPA 904.0	Radium-228	1.04 ± 0.486 (0.837) C:87% T:83%	pCi/L		11/29/23 15:18	
Total Radium Calculation	Total Radium	1.74 ± 1.02 (1.62)	pCi/L		12/06/23 16:17	
SM 2320B	Alkalinity, Total as CaCO3	211	mg/L	10.0	11/16/23 20:30	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	211	mg/L	10.0	11/16/23 20:30	
SM 2540C	Total Dissolved Solids	1860	mg/L	20.0	11/17/23 10:41	
SM 4500-H+B	pH at 25 Degrees C	7.0	Std. Units	0.10	11/28/23 16:23	H3
HACH 8146	Iron, Ferrous	4.0	mg/L	0.50	11/16/23 12:25	H3,N2
EPA 365.1	Phosphate as P04	0.44	mg/L	0.15	11/21/23 21:29	
SM 5310C	Total Organic Carbon	1.5	mg/L	1.0	11/22/23 07:20	
SM 5310C	Dissolved Organic Carbon	2.5	mg/L	1.0	11/22/23 00:54	
50359451005	**MW-42B**					
EPA 9056	Bromide	0.35	mg/L	0.050	11/23/23 22:04	
EPA 9056	Chloride	25.5	mg/L	2.5	11/23/23 22:22	
EPA 9056	Sulfate	194	mg/L	2.5	11/23/23 22:22	
EPA 6010	Boron	2850	ug/L	100	11/21/23 13:00	
EPA 6010	Calcium	239000	ug/L	2000	11/21/23 14:23	
EPA 6010	Iron	416	ug/L	100	11/21/23 13:00	
EPA 6010	Magnesium	47200	ug/L	1000	11/21/23 13:00	
EPA 6010	Potassium	2550	ug/L	1000	11/21/23 13:00	
EPA 6010	Silica	15800	ug/L	450	11/21/23 13:00	N2
EPA 6010	Sodium	16400	ug/L	1000	11/21/23 13:00	
EPA 6010	Boron, Dissolved	2310	ug/L	100	11/22/23 12:57	
EPA 6010	Iron, Dissolved	309	ug/L	100	11/22/23 12:57	
EPA 6010	Magnesium, Dissolved	39800	ug/L	1000	11/22/23 12:57	
EPA 6010	Potassium, Dissolved	2300	ug/L	1000	11/22/23 12:57	
EPA 6020	Barium	73.2	ug/L	1.0	11/20/23 10:29	
EPA 6020	Cobalt	2.2	ug/L	1.0	11/20/23 10:29	
EPA 6020	Manganese	1480	ug/L	10.0	11/20/23 05:02	
EPA 6020	Selenium	3.9	ug/L	1.0	11/20/23 10:29	
EPA 6020	Manganese, Dissolved	1370	ug/L	20.0	11/22/23 04:54	
EPA 903.1	Radium-226	0.968 ± 0.499 (0.554) C:NA T:84%	pCi/L		12/06/23 15:31	
EPA 904.0	Radium-228	0.620 ± 0.492 (0.984) C:77% T:84%	pCi/L		11/29/23 15:18	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359451005	**MW-42B**					
Total Radium Calculation	Total Radium	1.59 ± 0.991 (1.54)	pCi/L		12/06/23 16:17	
SM 2320B	Alkalinity, Total as CaCO3	514	mg/L	10.0	11/16/23 20:30	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	514	mg/L	10.0	11/16/23 20:30	
SM 2540C	Total Dissolved Solids	851	mg/L	10.0	11/17/23 10:42	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	11/28/23 16:23	H3
EPA 353.2	Nitrogen, Nitrate	1.5	mg/L	0.10	11/11/23 02:55	
SM 5310C	Total Organic Carbon	1.2	mg/L	1.0	11/22/23 07:45	
SM 5310C	Dissolved Organic Carbon	3.0	mg/L	1.0	11/22/23 01:09	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

Sample: MW-43A **Lab ID: 50359451001** Collected: 11/10/23 10:37 Received: 11/10/23 13:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.34**	mg/L	0.050	0.0090	1		11/23/23 17:11	24959-67-9	
Chloride	**109**	mg/L	2.5	0.67	10		11/23/23 17:28	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/23/23 17:11	16984-48-8	
Sulfate	**1290**	mg/L	25.0	19.0	100		11/23/23 17:47	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**12900**	ug/L	100	6.2	1	11/19/23 20:53	11/21/23 12:55	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/19/23 20:53	11/21/23 12:55	7440-43-9	
Calcium	**521000**	ug/L	5000	338	5	11/19/23 20:53	11/21/23 14:15	7440-70-2	
Iron	**8160**	ug/L	100	30.0	1	11/19/23 20:53	11/21/23 12:55	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	11/19/23 20:53	11/21/23 12:55	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/19/23 20:53	11/21/23 12:55	7439-93-2	
Magnesium	**34500**	ug/L	1000	33.6	1	11/19/23 20:53	11/21/23 12:55	7439-95-4	
Molybdenum	**328**	ug/L	10.0	0.78	1	11/19/23 20:53	11/21/23 12:55	7439-98-7	
Potassium	**19800**	ug/L	1000	97.8	1	11/19/23 20:53	11/21/23 12:55	7440-09-7	
Silica	**14400**	ug/L	450		1	11/19/23 20:53	11/21/23 12:55	7631-86-9	N2
Sodium	**65100**	ug/L	1000	54.8	1	11/19/23 20:53	11/21/23 12:55	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**11800**	ug/L	100	11.4	1	11/21/23 08:24	11/22/23 12:51	7440-42-8	
Iron, Dissolved	**7300**	ug/L	100	18.1	1	11/21/23 08:24	11/22/23 12:51	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	11/21/23 08:24	11/22/23 12:51	7439-93-2	
Magnesium, Dissolved	**32300**	ug/L	1000	32.8	1	11/21/23 08:24	11/22/23 12:51	7439-95-4	
Molybdenum, Dissolved	**312**	ug/L	10.0	1.1	1	11/21/23 08:24	11/22/23 12:51	7439-98-7	
Potassium, Dissolved	**18400**	ug/L	1000	120	1	11/21/23 08:24	11/22/23 12:51	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**23.4**	ug/L	10.0	4.4	1	11/18/23 10:16	11/21/23 03:22	7429-90-5	
Arsenic	**1.6**	ug/L	1.0	0.064	1	11/18/23 10:16	11/20/23 10:09	7440-38-2	
Barium	**29.3**	ug/L	1.0	0.067	1	11/18/23 10:16	11/20/23 10:09	7440-39-3	
Cobalt	ND	ug/L	1.0	0.024	1	11/18/23 10:16	11/20/23 10:09	7440-48-4	
Manganese	**1520**	ug/L	10.0	0.43	10	11/18/23 10:16	11/20/23 04:48	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	11/18/23 10:16	11/20/23 10:09	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/20/23 02:07	11/21/23 10:44	7429-90-5	
Manganese, Dissolved	**1490**	ug/L	20.0	3.6	20	11/20/23 02:07	11/22/23 04:38	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

Sample: MW-43A **Lab ID: 50359451001** Collected: 11/10/23 10:37 Received: 11/10/23 13:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**125**	mg/L	10.0	10.0	1		11/16/23 20:30		
Alkalinity,Bicarbonate (CaCO3)	**125**	mg/L	10.0	10.0	1		11/16/23 20:30		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/16/23 20:30		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2230**	mg/L	20.0	20.0	1		11/16/23 15:41		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.0**	Std. Units	0.10	0.10	1		11/28/23 16:22		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 15:56	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**1.7**	mg/L	0.50	0.088	2.5		11/16/23 12:28	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/11/23 02:42	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/11/23 02:42	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.59**	mg/L	0.15	0.15	1	11/21/23 10:00	11/21/23 18:28		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.8**	mg/L	1.0	0.24	1		11/22/23 06:02	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.4**	mg/L	1.0	0.24	1		11/22/23 00:22		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

Sample: MW-43I **Lab ID: 50359451002** Collected: 11/10/23 09:21 Received: 11/10/23 13:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.45**	mg/L	0.050	0.0090	1		11/23/23 18:05	24959-67-9	
Chloride	**67.8**	mg/L	2.5	0.67	10		11/23/23 18:23	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/23/23 18:05	16984-48-8	
Sulfate	**436**	mg/L	2.5	1.9	10		11/23/23 18:23	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**1610**	ug/L	100	6.2	1	11/19/23 20:53	11/21/23 12:56	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/19/23 20:53	11/21/23 12:56	7440-43-9	
Calcium	**234000**	ug/L	2000	135	2	11/19/23 20:53	11/21/23 14:16	7440-70-2	
Iron	**6890**	ug/L	100	30.0	1	11/19/23 20:53	11/21/23 12:56	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	11/19/23 20:53	11/21/23 12:56	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/19/23 20:53	11/21/23 12:56	7439-93-2	
Magnesium	**48700**	ug/L	1000	33.6	1	11/19/23 20:53	11/21/23 12:56	7439-95-4	
Molybdenum	**116**	ug/L	10.0	0.78	1	11/19/23 20:53	11/21/23 12:56	7439-98-7	
Potassium	**4760**	ug/L	1000	97.8	1	11/19/23 20:53	11/21/23 12:56	7440-09-7	
Silica	**16900**	ug/L	450		1	11/19/23 20:53	11/21/23 12:56	7631-86-9	N2
Sodium	**40300**	ug/L	1000	54.8	1	11/19/23 20:53	11/21/23 12:56	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1550**	ug/L	100	11.4	1	11/21/23 08:24	11/22/23 12:52	7440-42-8	
Iron, Dissolved	**6250**	ug/L	100	18.1	1	11/21/23 08:24	11/22/23 12:52	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	11/21/23 08:24	11/22/23 12:52	7439-93-2	
Magnesium, Dissolved	**46000**	ug/L	1000	32.8	1	11/21/23 08:24	11/22/23 12:52	7439-95-4	
Molybdenum, Dissolved	**114**	ug/L	10.0	1.1	1	11/21/23 08:24	11/22/23 12:52	7439-98-7	
Potassium, Dissolved	**4730**	ug/L	1000	120	1	11/21/23 08:24	11/22/23 12:52	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**26.5**	ug/L	10.0	4.4	1	11/18/23 10:16	11/21/23 03:26	7429-90-5	
Arsenic	**3.9**	ug/L	1.0	0.064	1	11/18/23 10:16	11/20/23 10:12	7440-38-2	
Barium	**57.6**	ug/L	1.0	0.067	1	11/18/23 10:16	11/20/23 10:12	7440-39-3	
Cobalt	ND	ug/L	1.0	0.024	1	11/18/23 10:16	11/20/23 10:12	7440-48-4	
Manganese	**1670**	ug/L	10.0	0.43	10	11/18/23 10:16	11/20/23 04:51	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	11/18/23 10:16	11/20/23 10:12	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/20/23 02:07	11/21/23 10:48	7429-90-5	
Manganese, Dissolved	**1640**	ug/L	20.0	3.6	20	11/20/23 02:07	11/22/23 04:42	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

Sample: MW-43I **Lab ID: 50359451002** Collected: 11/10/23 09:21 Received: 11/10/23 13:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**383**	mg/L	10.0	10.0	1		11/16/23 20:30		
Alkalinity,Bicarbonate (CaCO3)	**383**	mg/L	10.0	10.0	1		11/16/23 20:30		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/16/23 20:30		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1080**	mg/L	10.0	10.0	1		11/16/23 15:42		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		11/28/23 16:22		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 15:56	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**0.54**	mg/L	0.20	0.035	1		11/16/23 12:27	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/11/23 02:38	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/11/23 02:38	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.41**	mg/L	0.15	0.15	1	11/21/23 10:00	11/21/23 18:28		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.8**	mg/L	1.0	0.24	1		11/22/23 06:22	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.2**	mg/L	1.0	0.24	1		11/22/23 00:33		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

Sample: MW-42I **Lab ID: 50359451003** Collected: 11/10/23 10:30 Received: 11/10/23 13:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.89**	mg/L	0.050	0.0090	1		11/23/23 20:14	24959-67-9	
Chloride	**79.3**	mg/L	2.5	0.67	10		11/23/23 20:32	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/23/23 20:14	16984-48-8	
Sulfate	**962**	mg/L	25.0	19.0	100		11/23/23 20:50	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**16300**	ug/L	100	6.2	1	11/19/23 20:53	11/21/23 12:58	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/19/23 20:53	11/21/23 12:58	7440-43-9	
Calcium	**448000**	ug/L	5000	338	5	11/19/23 20:53	11/21/23 14:20	7440-70-2	
Iron	**12600**	ug/L	100	30.0	1	11/19/23 20:53	11/21/23 12:58	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	11/19/23 20:53	11/21/23 12:58	7439-92-1	
Lithium	**59.2**	ug/L	20.0	6.8	1	11/19/23 20:53	11/21/23 12:58	7439-93-2	
Magnesium	**32600**	ug/L	1000	33.6	1	11/19/23 20:53	11/21/23 12:58	7439-95-4	
Molybdenum	**339**	ug/L	10.0	0.78	1	11/19/23 20:53	11/21/23 12:58	7439-98-7	
Potassium	**23500**	ug/L	1000	97.8	1	11/19/23 20:53	11/21/23 12:58	7440-09-7	
Silica	**15800**	ug/L	450		1	11/19/23 20:53	11/21/23 12:58	7631-86-9	N2
Sodium	**35500**	ug/L	1000	54.8	1	11/19/23 20:53	11/21/23 12:58	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**15900**	ug/L	100	11.4	1	11/21/23 08:24	11/22/23 12:54	7440-42-8	
Iron, Dissolved	**11400**	ug/L	100	18.1	1	11/21/23 08:24	11/22/23 12:54	7439-89-6	
Lithium, Dissolved	**57.4**	ug/L	20.0	5.1	1	11/21/23 08:24	11/22/23 12:54	7439-93-2	
Magnesium, Dissolved	**30200**	ug/L	1000	32.8	1	11/21/23 08:24	11/22/23 12:54	7439-95-4	
Molybdenum, Dissolved	**375**	ug/L	10.0	1.1	1	11/21/23 08:24	11/22/23 12:54	7439-98-7	
Potassium, Dissolved	**23600**	ug/L	1000	120	1	11/21/23 08:24	11/22/23 12:54	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	4.4	1	11/18/23 10:16	11/21/23 03:29	7429-90-5	
Arsenic	ND	ug/L	1.0	0.064	1	11/18/23 10:16	11/20/23 10:16	7440-38-2	
Barium	**37.2**	ug/L	1.0	0.067	1	11/18/23 10:16	11/20/23 10:16	7440-39-3	
Cobalt	ND	ug/L	1.0	0.024	1	11/18/23 10:16	11/20/23 10:16	7440-48-4	
Manganese	**3670**	ug/L	25.0	1.1	25	11/18/23 10:16	11/20/23 04:55	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	11/18/23 10:16	11/20/23 10:16	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/20/23 02:07	11/21/23 10:52	7429-90-5	
Manganese, Dissolved	**3650**	ug/L	50.0	9.1	50	11/20/23 02:07	11/22/23 04:46	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

Sample: MW-42I **Lab ID: 50359451003** Collected: 11/10/23 10:30 Received: 11/10/23 13:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**225**	mg/L	10.0	10.0	1		11/16/23 20:30		
Alkalinity,Bicarbonate (CaCO3)	**225**	mg/L	10.0	10.0	1		11/16/23 20:30		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/16/23 20:30		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1800**	mg/L	20.0	20.0	1		11/17/23 10:41		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.0**	Std. Units	0.10	0.10	1		11/28/23 16:23		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 15:56	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**2.4**	mg/L	0.50	0.088	2.5		11/16/23 12:27	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/11/23 02:40	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/11/23 02:40	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.42**	mg/L	0.15	0.15	1	11/21/23 10:00	11/21/23 18:29		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.6**	mg/L	1.0	0.24	1		11/22/23 06:54	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.3**	mg/L	1.0	0.24	1		11/22/23 00:44		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

Sample: DUP-10 **Lab ID: 50359451004** Collected: 11/10/23 08:00 Received: 11/10/23 13:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.87**	mg/L	0.050	0.0090	1		11/23/23 21:09	24959-67-9	
Chloride	**81.2**	mg/L	2.5	0.67	10		11/23/23 21:27	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/23/23 21:09	16984-48-8	
Sulfate	**999**	mg/L	25.0	19.0	100		11/23/23 21:45	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**16800**	ug/L	100	6.2	1	11/19/23 20:53	11/21/23 12:59	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/19/23 20:53	11/21/23 12:59	7440-43-9	
Calcium	**456000**	ug/L	5000	338	5	11/19/23 20:53	11/21/23 14:22	7440-70-2	
Iron	**12100**	ug/L	100	30.0	1	11/19/23 20:53	11/21/23 12:59	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	11/19/23 20:53	11/21/23 12:59	7439-92-1	
Lithium	**58.5**	ug/L	20.0	6.8	1	11/19/23 20:53	11/21/23 12:59	7439-93-2	
Magnesium	**31500**	ug/L	1000	33.6	1	11/19/23 20:53	11/21/23 12:59	7439-95-4	
Molybdenum	**388**	ug/L	10.0	0.78	1	11/19/23 20:53	11/21/23 12:59	7439-98-7	
Potassium	**24500**	ug/L	1000	97.8	1	11/19/23 20:53	11/21/23 12:59	7440-09-7	
Silica	**15500**	ug/L	450		1	11/19/23 20:53	11/21/23 12:59	7631-86-9	N2
Sodium	**36200**	ug/L	1000	54.8	1	11/19/23 20:53	11/21/23 12:59	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**15800**	ug/L	100	11.4	1	11/21/23 08:24	11/22/23 12:55	7440-42-8	
Iron, Dissolved	**11000**	ug/L	100	18.1	1	11/21/23 08:24	11/22/23 12:55	7439-89-6	
Lithium, Dissolved	**57.1**	ug/L	20.0	5.1	1	11/21/23 08:24	11/22/23 12:55	7439-93-2	
Magnesium, Dissolved	**29100**	ug/L	1000	32.8	1	11/21/23 08:24	11/22/23 12:55	7439-95-4	
Molybdenum, Dissolved	**379**	ug/L	10.0	1.1	1	11/21/23 08:24	11/22/23 12:55	7439-98-7	
Potassium, Dissolved	**23100**	ug/L	1000	120	1	11/21/23 08:24	11/22/23 12:55	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	4.4	1	11/18/23 10:16	11/20/23 10:26	7429-90-5	
Arsenic	ND	ug/L	1.0	0.064	1	11/18/23 10:16	11/20/23 10:26	7440-38-2	
Barium	**37.3**	ug/L	1.0	0.067	1	11/18/23 10:16	11/20/23 10:26	7440-39-3	
Cobalt	ND	ug/L	1.0	0.024	1	11/18/23 10:16	11/20/23 10:26	7440-48-4	
Manganese	**3560**	ug/L	25.0	1.1	25	11/18/23 10:16	11/20/23 04:58	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	11/18/23 10:16	11/20/23 10:26	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/20/23 02:07	11/21/23 10:56	7429-90-5	
Manganese, Dissolved	**3610**	ug/L	50.0	9.1	50	11/20/23 02:07	11/28/23 01:21	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

Sample: DUP-10 **Lab ID: 50359451004** Collected: 11/10/23 08:00 Received: 11/10/23 13:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**211**	mg/L	10.0	10.0	1		11/16/23 20:30		
Alkalinity,Bicarbonate (CaCO3)	**211**	mg/L	10.0	10.0	1		11/16/23 20:30		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/16/23 20:30		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1860**	mg/L	20.0	20.0	1		11/17/23 10:41		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.0**	Std. Units	0.10	0.10	1		11/28/23 16:23		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 15:56	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**4.0**	mg/L	0.50	0.088	2.5		11/16/23 12:25	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/11/23 02:36	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/11/23 02:36	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.44**	mg/L	0.15	0.15	1	11/21/23 10:00	11/21/23 21:29		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.5**	mg/L	1.0	0.24	1		11/22/23 07:20	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.5**	mg/L	1.0	0.24	1		11/22/23 00:54		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

Sample: MW-42B **Lab ID: 50359451005** Collected: 11/10/23 12:45 Received: 11/10/23 13:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.35**	mg/L	0.050	0.0090	1		11/23/23 22:04	24959-67-9	
Chloride	**25.5**	mg/L	2.5	0.67	10		11/23/23 22:22	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/23/23 22:04	16984-48-8	
Sulfate	**194**	mg/L	2.5	1.9	10		11/23/23 22:22	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**2850**	ug/L	100	6.2	1	11/19/23 20:53	11/21/23 13:00	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/19/23 20:53	11/21/23 13:00	7440-43-9	
Calcium	**239000**	ug/L	2000	135	2	11/19/23 20:53	11/21/23 14:23	7440-70-2	
Iron	**416**	ug/L	100	30.0	1	11/19/23 20:53	11/21/23 13:00	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	11/19/23 20:53	11/21/23 13:00	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/19/23 20:53	11/21/23 13:00	7439-93-2	
Magnesium	**47200**	ug/L	1000	33.6	1	11/19/23 20:53	11/21/23 13:00	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	11/19/23 20:53	11/21/23 13:00	7439-98-7	
Potassium	**2550**	ug/L	1000	97.8	1	11/19/23 20:53	11/21/23 13:00	7440-09-7	
Silica	**15800**	ug/L	450		1	11/19/23 20:53	11/21/23 13:00	7631-86-9	N2
Sodium	**16400**	ug/L	1000	54.8	1	11/19/23 20:53	11/21/23 13:00	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**2310**	ug/L	100	11.4	1	11/21/23 08:24	11/22/23 12:57	7440-42-8	
Iron, Dissolved	**309**	ug/L	100	18.1	1	11/21/23 08:24	11/22/23 12:57	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	11/21/23 08:24	11/22/23 12:57	7439-93-2	
Magnesium, Dissolved	**39800**	ug/L	1000	32.8	1	11/21/23 08:24	11/22/23 12:57	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	11/21/23 08:24	11/22/23 12:57	7439-98-7	
Potassium, Dissolved	**2300**	ug/L	1000	120	1	11/21/23 08:24	11/22/23 12:57	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	4.4	1	11/18/23 10:16	11/20/23 10:29	7429-90-5	
Arsenic	ND	ug/L	1.0	0.064	1	11/18/23 10:16	11/20/23 10:29	7440-38-2	
Barium	**73.2**	ug/L	1.0	0.067	1	11/18/23 10:16	11/20/23 10:29	7440-39-3	
Cobalt	**2.2**	ug/L	1.0	0.024	1	11/18/23 10:16	11/20/23 10:29	7440-48-4	
Manganese	**1480**	ug/L	10.0	0.43	10	11/18/23 10:16	11/20/23 05:02	7439-96-5	
Selenium	**3.9**	ug/L	1.0	0.23	1	11/18/23 10:16	11/20/23 10:29	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/20/23 02:07	11/21/23 11:00	7429-90-5	
Manganese, Dissolved	**1370**	ug/L	20.0	3.6	20	11/20/23 02:07	11/22/23 04:54	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

Sample: MW-42B **Lab ID: 50359451005** Collected: 11/10/23 12:45 Received: 11/10/23 13:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**514**	mg/L	10.0	10.0	1		11/16/23 20:30		
Alkalinity,Bicarbonate (CaCO3)	**514**	mg/L	10.0	10.0	1		11/16/23 20:30		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/16/23 20:30		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**851**	mg/L	10.0	10.0	1		11/17/23 10:42		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		11/28/23 16:23		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 15:56	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/16/23 12:29	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**1.5**	mg/L	0.10	0.011	1		11/11/23 02:55	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/11/23 02:55	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/21/23 10:00	11/21/23 21:30		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.2**	mg/L	1.0	0.24	1		11/22/23 07:45	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.0**	mg/L	1.0	0.24	1		11/22/23 01:09		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

QC Batch: 763721
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359451001, 50359451002, 50359451003, 50359451004, 50359451005

METHOD BLANK: 3500899 Matrix: Water
Associated Lab Samples: 50359451001, 50359451002, 50359451003, 50359451004, 50359451005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	11/23/23 16:39	
Chloride	mg/L	ND	0.25	0.067	11/23/23 16:39	
Fluoride	mg/L	ND	0.10	0.017	11/23/23 16:39	
Sulfate	mg/L	ND	0.25	0.19	11/23/23 16:39	

LABORATORY CONTROL SAMPLE: 3500900

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.96	96	80-120	
Chloride	mg/L	2.5	2.5	98	80-120	
Fluoride	mg/L	1	0.98	98	80-120	
Sulfate	mg/L	5	4.9	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3500901 3500902

Parameter	Units	50359669002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	ND	1	1	0.99	0.99	95	95	80-120	0	15	
Chloride	mg/L	29.2	25	25	54.4	54.4	101	101	80-120	0	15	
Fluoride	mg/L	0.16	1	1	1.2	1.2	102	103	80-120	0	15	
Sulfate	mg/L	63.5	50	50	112	112	97	97	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

QC Batch: 762718
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359451001, 50359451002, 50359451003, 50359451004, 50359451005

METHOD BLANK: 3495980 Matrix: Water
Associated Lab Samples: 50359451001, 50359451002, 50359451003, 50359451004, 50359451005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	11/21/23 12:41	
Cadmium	ug/L	ND	2.0	0.60	11/21/23 12:41	
Calcium	ug/L	ND	1000	67.7	11/21/23 12:41	
Iron	ug/L	ND	100	30.0	11/21/23 12:41	
Lead	ug/L	ND	10.0	2.5	11/21/23 12:41	
Lithium	ug/L	ND	20.0	6.8	11/21/23 12:41	
Magnesium	ug/L	ND	1000	33.6	11/21/23 12:41	
Molybdenum	ug/L	ND	10.0	0.78	11/21/23 12:41	
Potassium	ug/L	ND	1000	97.8	11/21/23 12:41	
Silica	ug/L	ND	450		11/21/23 12:41	N2
Sodium	ug/L	ND	1000	54.8	11/21/23 12:41	

LABORATORY CONTROL SAMPLE: 3495981

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	969	97	80-120	
Cadmium	ug/L	1000	969	97	80-120	
Calcium	ug/L	10000	9940	99	80-120	
Iron	ug/L	10000	10100	101	80-120	
Lead	ug/L	1000	921	92	80-120	
Lithium	ug/L	1000	1030	103	80-120	
Magnesium	ug/L	10000	9670	97	80-120	
Molybdenum	ug/L	1000	1000	100	80-120	
Potassium	ug/L	10000	9750	98	80-120	
Silica	ug/L	10700	10800	101	80-120	N2
Sodium	ug/L	10000	9690	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495982 3495983

Parameter	Units	50359448002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	11200	1000	1000	11800	11500	61	31	75-125	3	20	P6
Cadmium	ug/L	ND	1000	1000	995	972	100	97	75-125	2	20	
Calcium	ug/L	216000	10000	10000	217000	217000	11	9	75-125	0	20	P6
Iron	ug/L	ND	10000	10000	9810	9630	97	96	75-125	2	20	
Lead	ug/L	ND	1000	1000	877	863	88	86	75-125	2	20	
Lithium	ug/L	137	1000	1000	1160	1130	102	100	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495982 3495983

Parameter	Units	50359448002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Magnesium	ug/L	86500	10000	10000	92600	90700	61	42	75-125	2	20	P6
Molybdenum	ug/L	253	1000	1000	1250	1230	100	97	75-125	2	20	
Potassium	ug/L	21700	10000	10000	31000	30200	93	85	75-125	3	20	
Silica	ug/L	16000	10700	10700	26200	25600	96	90	75-125	2	20	N2
Sodium	ug/L	129000	10000	10000	134000	131000	50	16	75-125	3	20	P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

QC Batch: 763258
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359451001, 50359451002, 50359451003, 50359451004, 50359451005

METHOD BLANK: 3498426 Matrix: Water
Associated Lab Samples: 50359451001, 50359451002, 50359451003, 50359451004, 50359451005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	11.4	11/22/23 12:22	
Iron, Dissolved	ug/L	ND	100	18.1	11/22/23 12:22	
Lithium, Dissolved	ug/L	ND	20.0	5.1	11/22/23 12:22	
Magnesium, Dissolved	ug/L	ND	1000	32.8	11/22/23 12:22	
Molybdenum, Dissolved	ug/L	ND	10.0	1.1	11/22/23 12:22	
Potassium, Dissolved	ug/L	ND	1000	120	11/22/23 12:22	

LABORATORY CONTROL SAMPLE: 3498427

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	958	96	80-120	
Iron, Dissolved	ug/L	10000	9740	97	80-120	
Lithium, Dissolved	ug/L	1000	1000	100	80-120	
Magnesium, Dissolved	ug/L	10000	9550	95	80-120	
Molybdenum, Dissolved	ug/L	1000	987	99	80-120	
Potassium, Dissolved	ug/L	10000	9420	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498428 3498429

Parameter	Units	50359425001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	10900	1000	1000	11500	11400	54	49	75-125	0	20	P6
Iron, Dissolved	ug/L	5680	10000	10000	14900	15000	92	93	75-125	1	20	
Lithium, Dissolved	ug/L	72.7	1000	1000	1070	1080	100	101	75-125	1	20	
Magnesium, Dissolved	ug/L	39500	10000	10000	46800	46800	73	73	75-125	0	20	M3
Molybdenum, Dissolved	ug/L	165	1000	1000	1150	1160	99	99	75-125	1	20	
Potassium, Dissolved	ug/L	17500	10000	10000	25900	26500	84	90	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

QC Batch: 763694
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359451001, 50359451002, 50359451003, 50359451004, 50359451005

METHOD BLANK: 3500698 Matrix: Water
Associated Lab Samples: 50359451001, 50359451002, 50359451003, 50359451004, 50359451005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	4.4	11/20/23 03:25	
Arsenic	ug/L	ND	1.0	0.064	11/20/23 03:25	
Barium	ug/L	ND	1.0	0.067	11/20/23 03:25	
Cobalt	ug/L	ND	1.0	0.024	11/20/23 03:25	
Manganese	ug/L	ND	1.0	0.043	11/20/23 03:25	
Selenium	ug/L	ND	1.0	0.23	11/20/23 03:25	

LABORATORY CONTROL SAMPLE: 3500699

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	422	105	80-120	
Arsenic	ug/L	40	38.0	95	80-120	
Barium	ug/L	40	38.4	96	80-120	
Cobalt	ug/L	40	40.4	101	80-120	
Manganese	ug/L	40	40.8	102	80-120	
Selenium	ug/L	40	39.5	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3500700 3500701

Parameter	Units	50359387004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	ND	400	400	378	383	93	94	75-125	1	20	
Arsenic	ug/L	ND	40	40	38.2	37.8	95	94	75-125	1	20	
Barium	ug/L	42.9	40	40	82.6	85.3	99	106	75-125	3	20	
Cobalt	ug/L	ND	40	40	38.1	38.8	93	95	75-125	2	20	
Manganese	ug/L	1680	40	40	1690	1710	24	84	75-125	1	20	P6
Selenium	ug/L	2.0	40	40	41.3	41.5	98	99	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

QC Batch: 763783
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359451001, 50359451002, 50359451003, 50359451004, 50359451005

METHOD BLANK: 3501276 Matrix: Water
Associated Lab Samples: 50359451001, 50359451002, 50359451003, 50359451004, 50359451005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.8	11/21/23 09:32	
Manganese, Dissolved	ug/L	ND	1.0	0.18	11/21/23 09:32	

LABORATORY CONTROL SAMPLE: 3501277

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	399	100	80-120	
Manganese, Dissolved	ug/L	40	41.6	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3501278 3501279

Parameter	Units	50359566001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	379	380	94	95	75-125	0	20	
Manganese, Dissolved	ug/L	77.1	40	40	115	116	94	97	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

QC Batch: 763474
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359451001, 50359451002, 50359451003, 50359451004, 50359451005

METHOD BLANK: 3499592 Matrix: Water
Associated Lab Samples: 50359451001, 50359451002, 50359451003, 50359451004, 50359451005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/16/23 20:30	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/16/23 20:30	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/16/23 20:30	

LABORATORY CONTROL SAMPLE: 3499593

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.7	99	90-110	

SAMPLE DUPLICATE: 3499594

Parameter	Units	50359425001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	120	122	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	120	122	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3499595

Parameter	Units	50359483006 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	284	291	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	284	291	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

QC Batch: 763079
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359451001, 50359451002

METHOD BLANK: 3497407 Matrix: Water
Associated Lab Samples: 50359451001, 50359451002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/16/23 15:32	

LABORATORY CONTROL SAMPLE: 3497408

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	276	92	80-120	

SAMPLE DUPLICATE: 3497409

Parameter	Units	50359442018 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2950	2950	0	10	

SAMPLE DUPLICATE: 3497410

Parameter	Units	50359454020 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	279	282	1	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

QC Batch: 763565
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359451003, 50359451004, 50359451005

METHOD BLANK: 3500094 Matrix: Water
Associated Lab Samples: 50359451003, 50359451004, 50359451005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/17/23 10:40	

LABORATORY CONTROL SAMPLE: 3500095

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	294	98	80-120	

SAMPLE DUPLICATE: 3500097

Parameter	Units	50359654002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1660	1760	5	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

QC Batch: 765047
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359451001, 50359451002, 50359451003, 50359451004, 50359451005

SAMPLE DUPLICATE: 3506078

Parameter	Units	50359451001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.0	6.9	1	2	H3

SAMPLE DUPLICATE: 3506079

Parameter	Units	50358423009 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.4	7.4	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

QC Batch: 762916
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359451001, 50359451002, 50359451003, 50359451004, 50359451005

METHOD BLANK: 3496645 Matrix: Water
Associated Lab Samples: 50359451001, 50359451002, 50359451003, 50359451004, 50359451005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/14/23 15:56	

LABORATORY CONTROL SAMPLE: 3496646

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.53	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3496647 3496648

Parameter	Units	50359369004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	0.14	0.5	0.5	0.54	0.54	78	79	90-110	0	20	M3

MATRIX SPIKE SAMPLE: 3496649

Parameter	Units	50359451001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.33	65	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

QC Batch: 763332 | Analysis Method: HACH 8146
QC Batch Method: HACH 8146 | Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359451001, 50359451002, 50359451003, 50359451004, 50359451005

METHOD BLANK: 3498756 Matrix: Water
Associated Lab Samples: 50359451001, 50359451002, 50359451003, 50359451004, 50359451005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/16/23 12:20	H3,N2

LABORATORY CONTROL SAMPLE: 3498757

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	0.99	99	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498758 3498759

Parameter	Units	50359425001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	0.34	1	1	1.5	1.5	114	121	90-110	5	20	H3,M3, N2

MATRIX SPIKE SAMPLE: 3498760

Parameter	Units	50359451001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1.7	5	6.6	98	90-110	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

QC Batch: 762277
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359451001, 50359451002, 50359451003, 50359451004, 50359451005

METHOD BLANK: 3494351 Matrix: Water
Associated Lab Samples: 50359451001, 50359451002, 50359451003, 50359451004, 50359451005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/11/23 02:14	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/11/23 02:14	

LABORATORY CONTROL SAMPLE: 3494352

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	100	90-110	
Nitrogen, Nitrite	mg/L	1	1.1	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3494353 3494354

Parameter	Units	50359448002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.1	1.1	103	103	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.1	1.1	108	109	90-110	0	20	

MATRIX SPIKE SAMPLE: 3494355

Parameter	Units	50359451005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1.5	1	2.5	100	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.1	107	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

QC Batch: 764164
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359451001, 50359451002, 50359451003, 50359451004, 50359451005

METHOD BLANK: 3502785 Matrix: Water
Associated Lab Samples: 50359451001, 50359451002, 50359451003, 50359451004, 50359451005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	11/21/23 18:15	

LABORATORY CONTROL SAMPLE: 3502786

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE SAMPLE: 3502789

Parameter	Units	50359425005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	1.3		3.1			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3502850 3502851

Parameter	Units	50359425006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	1.6			3.2	3.2				0		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

QC Batch: 764033
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359451001, 50359451002, 50359451003, 50359451004, 50359451005

METHOD BLANK: 3502334 Matrix: Water
Associated Lab Samples: 50359451001, 50359451002, 50359451003, 50359451004, 50359451005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	11/21/23 21:15	

LABORATORY CONTROL SAMPLE: 3502335

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3502336 3502337

Parameter	Units	50359369004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	ND	10	10	10.5	10.6	98	99	80-120	1	20	

MATRIX SPIKE SAMPLE: 3502338

Parameter	Units	50359425001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.8	10	11.8	100	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

QC Batch: 764235
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359451001, 50359451002, 50359451003, 50359451004, 50359451005

METHOD BLANK: 3503004 Matrix: Water
Associated Lab Samples: 50359451001, 50359451002, 50359451003, 50359451004, 50359451005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	11/21/23 20:40	

LABORATORY CONTROL SAMPLE: 3503005

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503006 3503007

Parameter	Units	50359374003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	3.5	10	10	12.6	12.4	91	89	80-120	1	20	

MATRIX SPIKE SAMPLE: 3503008

Parameter	Units	50359425001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	4.4	10	14.0	96	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

Sample: MW-43A **Lab ID: 50359451001** Collected: 11/10/23 10:37 Received: 11/10/23 13:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.488 ± 0.282 (0.110) C:NA T:87%**	pCi/L	12/06/23 15:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.257 ± 0.313 (0.660) C:89% T:87%**	pCi/L	11/29/23 15:18	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.745 ± 0.595 (0.770)**	pCi/L	12/06/23 16:17	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

Sample: MW-43I **Lab ID: 50359451002** Collected: 11/10/23 09:21 Received: 11/10/23 13:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.494 ± 0.458 (0.697) C:NA T:82%**	pCi/L	12/06/23 15:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.765 ± 0.491 (0.949) C:85% T:82%**	pCi/L	11/29/23 15:18	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.26 ± 0.949 (1.65)**	pCi/L	12/06/23 16:17	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

Sample: MW-42I **Lab ID: 50359451003** Collected: 11/10/23 10:30 Received: 11/10/23 13:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.295 ± 0.517 (0.897) C:NA T:87%**	pCi/L	12/06/23 15:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.897 ± 0.494 (0.907) C:78% T:87%**	pCi/L	11/29/23 15:18	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.19 ± 1.01 (1.80)**	pCi/L	12/06/23 16:17	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

Sample: DUP-10 **Lab ID: 50359451004** Collected: 11/10/23 08:00 Received: 11/10/23 13:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.704 ± 0.534 (0.782) C:NA T:83%**	pCi/L	12/06/23 15:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.04 ± 0.486 (0.837) C:87% T:83%**	pCi/L	11/29/23 15:18	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.74 ± 1.02 (1.62)**	pCi/L	12/06/23 16:17	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

Sample: MW-42B **Lab ID: 50359451005** Collected: 11/10/23 12:45 Received: 11/10/23 13:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.968 ± 0.499 (0.554) C:NA T:84%**	pCi/L	12/06/23 15:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.620 ± 0.492 (0.984) C:77% T:84%**	pCi/L	11/29/23 15:18	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.59 ± 0.991 (1.54)**	pCi/L	12/06/23 16:17	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

QC Batch: 630094
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359451001, 50359451002, 50359451003, 50359451004, 50359451005

METHOD BLANK: 3071751 Matrix: Water
Associated Lab Samples: 50359451001, 50359451002, 50359451003, 50359451004, 50359451005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.574 ± 0.366 (0.690) C:83% T:91%	pCi/L	11/29/23 15:19	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

QC Batch: 630093
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359451001, 50359451002, 50359451003, 50359451004, 50359451005

METHOD BLANK: 3071750 Matrix: Water
Associated Lab Samples: 50359451001, 50359451002, 50359451003, 50359451004, 50359451005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0823 ± 0.198 (0.382) C:NA T:91%	pCi/L	12/06/23 15:06	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359451001	**MW-43A**	EPA 9056	763721		
50359451002	**MW-43I**	EPA 9056	763721		
50359451003	**MW-42I**	EPA 9056	763721		
50359451004	**DUP-10**	EPA 9056	763721		
50359451005	**MW-42B**	EPA 9056	763721		
50359451001	**MW-43A**	EPA 3010	762718	EPA 6010	764243
50359451002	**MW-43I**	EPA 3010	762718	EPA 6010	764243
50359451003	**MW-42I**	EPA 3010	762718	EPA 6010	764243
50359451004	**DUP-10**	EPA 3010	762718	EPA 6010	764243
50359451005	**MW-42B**	EPA 3010	762718	EPA 6010	764243
50359451001	**MW-43A**	EPA 3010	763258	EPA 6010	764546
50359451002	**MW-43I**	EPA 3010	763258	EPA 6010	764546
50359451003	**MW-42I**	EPA 3010	763258	EPA 6010	764546
50359451004	**DUP-10**	EPA 3010	763258	EPA 6010	764546
50359451005	**MW-42B**	EPA 3010	763258	EPA 6010	764546
50359451001	**MW-43A**	EPA 200.2	763694	EPA 6020	763808
50359451002	**MW-43I**	EPA 200.2	763694	EPA 6020	763808
50359451003	**MW-42I**	EPA 200.2	763694	EPA 6020	763808
50359451004	**DUP-10**	EPA 200.2	763694	EPA 6020	763808
50359451005	**MW-42B**	EPA 200.2	763694	EPA 6020	763808
50359451001	**MW-43A**	EPA 200.2	763783	EPA 6020	764101
50359451002	**MW-43I**	EPA 200.2	763783	EPA 6020	764101
50359451003	**MW-42I**	EPA 200.2	763783	EPA 6020	764101
50359451004	**DUP-10**	EPA 200.2	763783	EPA 6020	764101
50359451005	**MW-42B**	EPA 200.2	763783	EPA 6020	764101
50359451001	**MW-43A**	EPA 903.1	630093		
50359451002	**MW-43I**	EPA 903.1	630093		
50359451003	**MW-42I**	EPA 903.1	630093		
50359451004	**DUP-10**	EPA 903.1	630093		
50359451005	**MW-42B**	EPA 903.1	630093		
50359451001	**MW-43A**	EPA 904.0	630094		
50359451002	**MW-43I**	EPA 904.0	630094		
50359451003	**MW-42I**	EPA 904.0	630094		
50359451004	**DUP-10**	EPA 904.0	630094		
50359451005	**MW-42B**	EPA 904.0	630094		
50359451001	**MW-43A**	Total Radium Calculation	634288		
50359451002	**MW-43I**	Total Radium Calculation	634288		
50359451003	**MW-42I**	Total Radium Calculation	634288		
50359451004	**DUP-10**	Total Radium Calculation	634288		
50359451005	**MW-42B**	Total Radium Calculation	634288		
50359451001	**MW-43A**	SM 2320B	763474		
50359451002	**MW-43I**	SM 2320B	763474		
50359451003	**MW-42I**	SM 2320B	763474		
50359451004	**DUP-10**	SM 2320B	763474		
50359451005	**MW-42B**	SM 2320B	763474		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PETERSBURG P4R3 NOV 2023
Pace Project No.: 50359451

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359451001	**MW-43A**	SM 2540C	763079		
50359451002	**MW-43I**	SM 2540C	763079		
50359451003	**MW-42I**	SM 2540C	763565		
50359451004	**DUP-10**	SM 2540C	763565		
50359451005	**MW-42B**	SM 2540C	763565		
50359451001	**MW-43A**	SM 4500-H+B	765047		
50359451002	**MW-43I**	SM 4500-H+B	765047		
50359451003	**MW-42I**	SM 4500-H+B	765047		
50359451004	**DUP-10**	SM 4500-H+B	765047		
50359451005	**MW-42B**	SM 4500-H+B	765047		
50359451001	**MW-43A**	SM 4500-S2-D	762916		
50359451002	**MW-43I**	SM 4500-S2-D	762916		
50359451003	**MW-42I**	SM 4500-S2-D	762916		
50359451004	**DUP-10**	SM 4500-S2-D	762916		
50359451005	**MW-42B**	SM 4500-S2-D	762916		
50359451001	**MW-43A**	HACH 8146	763332		
50359451002	**MW-43I**	HACH 8146	763332		
50359451003	**MW-42I**	HACH 8146	763332		
50359451004	**DUP-10**	HACH 8146	763332		
50359451005	**MW-42B**	HACH 8146	763332		
50359451001	**MW-43A**	EPA 353.2	762277		
50359451002	**MW-43I**	EPA 353.2	762277		
50359451003	**MW-42I**	EPA 353.2	762277		
50359451004	**DUP-10**	EPA 353.2	762277		
50359451005	**MW-42B**	EPA 353.2	762277		
50359451001	**MW-43A**	EPA 365.1	764164	EPA 365.1	764401
50359451002	**MW-43I**	EPA 365.1	764164	EPA 365.1	764401
50359451003	**MW-42I**	EPA 365.1	764164	EPA 365.1	764401
50359451004	**DUP-10**	EPA 365.1	764164	EPA 365.1	764401
50359451005	**MW-42B**	EPA 365.1	764164	EPA 365.1	764401
50359451001	**MW-43A**	SM 5310C	764033		
50359451002	**MW-43I**	SM 5310C	764033		
50359451003	**MW-42I**	SM 5310C	764033		
50359451004	**DUP-10**	SM 5310C	764033		
50359451005	**MW-42B**	SM 5310C	764033		
50359451001	**MW-43A**	SM 5310C	764235		
50359451002	**MW-43I**	SM 5310C	764235		
50359451003	**MW-42I**	SM 5310C	764235		
50359451004	**DUP-10**	SM 5310C	764235		
50359451005	**MW-42B**	SM 5310C	764235		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO# : 50359451

50359451

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Company: Atlas Indianapolis	Report To: Mark Breting	Section C Invoice Information:	
Address: 7988 Centerpoint Drive Suite 100	Copy To:	Attention: Accounts Payable - Paula Sedam	
Indianapolis, IN 46256		Company Name: Atlas Indianapolis	
Email: mark.breting@oneatlas.com	Purchase Order #:	Address:	Regulatory Agency
Phone: (317)579-4082 Fax:	Project Name: Petersburg P4R3 Nov 2023	Pace Quote:	
Requested Due Date:	Project #:	Pace Project Manager: Will Statz	State / Location
		Pace Profile #: 10498/53	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test (Y/N)	TDS/ NO2, NO3 Wet	(Br, Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered** (Y)	Alkalinity*, Ferrous Iron, pH	TOC by 5310C	DOC by 5310C (Y)	Sulfide	Phosphate	Rad-226/228 + Sum			Residual Chlorine (Y/N)	
1	MW-43A	WT	G	11/10	10:12	11/10	10:37		11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
2	MW-43I	WT	G	11/10	9:05	11/10	9:21		11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
3	MW-42I	WT	G	11-10	0925	11-10	1030		11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
4	DUP 10	WT	G	11-10		11-10			11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
5	MW-43B	WT	G	11-10	1220	11-10	1245		11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
6																																
7																																
8																																
9																																
10																																
11																																
12																																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
* Metals: 6010 (B, Cd, Fe, Pb, Mo, Ca, Mg, Na, K, Li, sila) (11)	Carsen Clouser/Sampler	11/10	13:00	R. Clouser	11-10-23	13:00	0.8	y	N	y
6020 (Al, Mn, Co, As, Se, Ba) (6)							1.2			
** Dissolved FF 6010 (B, Fe, Mo, Mg, K, Li) (6) FF 6020 (Al, Mn) (2)							0.2			
Rad 226/2228 to Pace PA							TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Carsen Clouser

SIGNATURE of SAMPLER: Carsen Clouser

DATE Signed: 11/10/23

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: BC 11-10-23 16:47

1. Courier: ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. Custody Seal on Cooler/Box Present: ☐ Yes ☑ No

(If yes)Seals Intact: ☐ Yes ☐ No (leave blank if no seals were present)

3. Thermometer: 1 2 3 4 5 6 7 8 A B C D E F (G) H

4. Cooler Temperature(s): 0.8 | 0.8 | 1.2 | 1.2 | 0.2 | 0.2 | | (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. Ice Type: ☑ Wet ☐ Blue ☐ None

7. If temp. is over 6°C or under 0°C, was the PM notified?: ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓
Short Hold Time Analysis (48 hours or less)? **Analysis:** NO3	✓	
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:	
Rush TAT Requested (4 days or less):		✓
Custody Signatures Present?	✓	
Containers Intact?:	✓	
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID		✓
Extra labels on Terracore Vials? (soils only)		

	Yes	No	N/A
All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** (HNO3 (<2)) (H2SO4 (<2)) NaOH (>10) (NaOH/ZnAc (>9)) Any non-conformance to pH recommendations will be noted on the container count form	✓		
	Present	Absent	N/A
Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Headspace Wisconsin Sulfide?			✓
	Present	Absent	No VOA Vials Sent
Headspace in VOA Vials (>6mm): See Containter Count form for details			✓
Trip Blank Present?		✓	
Trip Blank Custody Seals?:			✓

COMMENTS: Did not receive MW-43B but I did receive MW-42B with date/time on COC. MW-43I samples time read 9:00 instead of 9:05 or 9:21. BC 11-10-23

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1												1	1			2	1	2	1	1	1		1				WT	✓	✓		✓
2												1	1			1	1	1	1	1	1		1					1	1		1
3												1	1			1	1	1	1	1	1		1					1	1		1
4												1	1			1	1	1	1	1	1		1					1	1		1
5												1	1			1	1	1	1	1	1		1					1	1		1
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 12, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 13, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50359550001	**AP-5A**	Water	11/12/23 09:20	11/13/23 11:15
50359550002	**AP-6A**	Water	11/12/23 11:10	11/13/23 11:15
50359550003	**AP-7**	Water	11/12/23 14:00	11/13/23 11:15
50359550004	**AP-8**	Water	11/12/23 15:15	11/13/23 11:15

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50359550001	**AP-5A**	EPA 9056	ADM	1	PASI-I
		EPA 6010	MTM	5	PASI-I
		EPA 6010	ELK	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 6020	MGM	2	PASI-I
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359550002	**AP-6A**	EPA 9056	ADM	1	PASI-I
		EPA 6010	MTM	5	PASI-I
		EPA 6010	ELK	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 6020	DMT, MGM	2	PASI-I
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359550003	**AP-7**	EPA 9056	ADM	1	PASI-I
		EPA 6010	MTM	5	PASI-I
		EPA 6010	ELK	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 6020	MGM	2	PASI-I
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359550004	**AP-8**	EPA 9056	ADM	1	PASI-I
		EPA 6010	MTM	5	PASI-I
		EPA 6010	ELK	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 6020	MGM	2	PASI-I
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359550001	**AP-5A**					
EPA 9056	Bromide	0.40	mg/L	0.050	11/28/23 14:41	
EPA 6010	Iron	11200	ug/L	100	11/28/23 11:21	
EPA 6010	Magnesium	48700	ug/L	1000	11/28/23 11:21	
EPA 6010	Potassium	3620	ug/L	1000	11/28/23 11:21	
EPA 6010	Silica	13600	ug/L	450	11/28/23 11:21	N2
EPA 6010	Sodium	54700	ug/L	1000	11/28/23 11:21	
EPA 6010	Boron, Dissolved	9800	ug/L	100	11/27/23 16:10	
EPA 6010	Iron, Dissolved	11800	ug/L	100	11/27/23 16:10	
EPA 6010	Magnesium, Dissolved	49700	ug/L	1000	11/27/23 16:10	
EPA 6010	Molybdenum, Dissolved	306	ug/L	10.0	11/27/23 16:10	
EPA 6010	Potassium, Dissolved	3710	ug/L	1000	11/27/23 16:10	
EPA 6020	Aluminum	25.6	ug/L	10.0	11/22/23 05:42	
EPA 6020	Manganese	1920	ug/L	20.0	11/22/23 22:58	
EPA 6020	Manganese, Dissolved	1940	ug/L	20.0	11/22/23 05:06	
SM 2320B	Alkalinity, Total as CaCO3	91.4	mg/L	10.0	11/16/23 23:39	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	91.4	mg/L	10.0	11/16/23 23:39	
SM 2540C	Total Dissolved Solids	2600	mg/L	40.0	11/17/23 10:47	
HACH 8146	Iron, Ferrous	7.6	mg/L	1.0	11/16/23 12:30	H3,N2
EPA 365.1	Phosphate as P04	0.39	mg/L	0.15	11/28/23 16:01	
SM 5310C	Total Organic Carbon	1.7	mg/L	1.0	11/22/23 11:21	
SM 5310C	Dissolved Organic Carbon	2.4	mg/L	1.0	11/22/23 01:19	
50359550002	**AP-6A**					
EPA 9056	Bromide	0.31	mg/L	0.050	11/28/23 21:43	
EPA 6010	Iron	10300	ug/L	100	11/28/23 11:31	
EPA 6010	Magnesium	76900	ug/L	1000	11/28/23 11:31	
EPA 6010	Potassium	2310	ug/L	1000	11/28/23 13:18	
EPA 6010	Silica	12600	ug/L	450	11/28/23 11:31	N2
EPA 6010	Sodium	14800	ug/L	1000	11/28/23 11:31	
EPA 6010	Boron, Dissolved	4230	ug/L	100	11/27/23 16:11	
EPA 6010	Iron, Dissolved	10600	ug/L	100	11/27/23 16:11	
EPA 6010	Magnesium, Dissolved	76900	ug/L	1000	11/27/23 16:11	
EPA 6010	Potassium, Dissolved	2090	ug/L	1000	11/27/23 16:11	
EPA 6020	Manganese	1010	ug/L	10.0	11/22/23 23:02	
EPA 6020	Manganese, Dissolved	1010	ug/L	10.0	11/22/23 05:10	
SM 2320B	Alkalinity, Total as CaCO3	336	mg/L	10.0	11/16/23 23:39	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	336	mg/L	10.0	11/16/23 23:39	
SM 2540C	Total Dissolved Solids	1470	mg/L	20.0	11/17/23 10:47	
HACH 8146	Iron, Ferrous	4.2	mg/L	1.0	11/16/23 12:30	H3,N2
EPA 365.1	Phosphate as P04	0.38	mg/L	0.15	11/28/23 16:02	
SM 5310C	Total Organic Carbon	1.4	mg/L	1.0	11/22/23 11:47	
SM 5310C	Dissolved Organic Carbon	4.2	mg/L	1.0	11/22/23 01:30	
50359550003	**AP-7**					
EPA 9056	Bromide	0.068	mg/L	0.050	11/28/23 22:39	
EPA 6010	Iron	20300	ug/L	100	11/28/23 11:33	
EPA 6010	Magnesium	66900	ug/L	1000	11/28/23 11:33	
EPA 6010	Potassium	2570	ug/L	1000	11/28/23 13:20	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359550003	**AP-7**					
EPA 6010	Silica	26100	ug/L	450	11/28/23 11:33	N2
EPA 6010	Sodium	10700	ug/L	1000	11/28/23 11:33	
EPA 6010	Boron, Dissolved	218	ug/L	100	11/27/23 16:13	
EPA 6010	Iron, Dissolved	21700	ug/L	100	11/27/23 16:13	
EPA 6010	Magnesium, Dissolved	70500	ug/L	1000	11/27/23 16:13	
EPA 6010	Potassium, Dissolved	2440	ug/L	1000	11/27/23 16:13	
EPA 6020	Aluminum	16.9	ug/L	10.0	11/22/23 23:19	
EPA 6020	Manganese	1560	ug/L	10.0	11/22/23 23:15	
EPA 6020	Manganese, Dissolved	1540	ug/L	20.0	11/22/23 05:14	
SM 2320B	Alkalinity, Total as CaCO3	498	mg/L	10.0	11/16/23 23:39	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	498	mg/L	10.0	11/16/23 23:39	
SM 2540C	Total Dissolved Solids	866	mg/L	20.0	11/17/23 11:02	
SM 4500-S2-D	Sulfide	1.5	mg/L	0.20	11/14/23 16:28	
HACH 8146	Iron, Ferrous	15.4	mg/L	2.5	11/16/23 14:34	H3,N2
EPA 365.1	Phosphate as P04	0.82	mg/L	0.15	11/28/23 16:04	
SM 5310C	Total Organic Carbon	2.4	mg/L	2.0	11/22/23 12:12	
SM 5310C	Dissolved Organic Carbon	5.2	mg/L	2.0	11/22/23 01:41	
50359550004	**AP-8**					
EPA 9056	Bromide	0.21	mg/L	0.050	11/29/23 02:19	
EPA 6010	Iron	142000	ug/L	100	11/28/23 11:34	
EPA 6010	Magnesium	44800	ug/L	1000	11/28/23 11:34	
EPA 6010	Potassium	5040	ug/L	1000	11/28/23 13:21	
EPA 6010	Silica	41800	ug/L	450	11/28/23 11:34	N2
EPA 6010	Sodium	13300	ug/L	1000	11/28/23 11:34	
EPA 6010	Boron, Dissolved	857	ug/L	100	11/27/23 16:14	
EPA 6010	Iron, Dissolved	152000	ug/L	100	11/27/23 16:14	
EPA 6010	Lithium, Dissolved	42.8	ug/L	20.0	11/27/23 16:14	
EPA 6010	Magnesium, Dissolved	43900	ug/L	1000	11/27/23 16:14	
EPA 6010	Potassium, Dissolved	4910	ug/L	1000	11/27/23 16:14	
EPA 6020	Aluminum	929	ug/L	20.0	11/22/23 23:29	
EPA 6020	Manganese	10900	ug/L	100	11/22/23 23:26	
EPA 6020	Aluminum, Dissolved	792	ug/L	10.0	11/21/23 11:24	
EPA 6020	Manganese, Dissolved	10900	ug/L	100	11/22/23 05:18	
SM 2320B	Alkalinity, Total as CaCO3	50.6	mg/L	10.0	11/16/23 23:39	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	50.6	mg/L	10.0	11/16/23 23:39	
SM 2540C	Total Dissolved Solids	1250	mg/L	20.0	11/17/23 11:02	
HACH 8146	Iron, Ferrous	143	mg/L	25.0	11/16/23 14:34	H3,N2
SM 5310C	Total Organic Carbon	4.3	mg/L	1.0	11/22/23 12:32	
SM 5310C	Dissolved Organic Carbon	6.6	mg/L	1.0	11/22/23 02:18	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

Sample: AP-5A **Lab ID: 50359550001** Collected: 11/12/23 09:20 Received: 11/13/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056								
	Pace Analytical Services - Indianapolis								
Bromide	**0.40**	mg/L	0.050	0.0090	1		11/28/23 14:41	24959-67-9	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Iron	**11200**	ug/L	100	18.1	1	11/20/23 16:13	11/28/23 11:21	7439-89-6	
Magnesium	**48700**	ug/L	1000	32.8	1	11/20/23 16:13	11/28/23 11:21	7439-95-4	
Potassium	**3620**	ug/L	1000	120	1	11/20/23 16:13	11/28/23 11:21	7440-09-7	
Silica	**13600**	ug/L	450		1	11/20/23 16:13	11/28/23 11:21	7631-86-9	N2
Sodium	**54700**	ug/L	1000	48.2	1	11/20/23 16:13	11/28/23 11:21	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Boron, Dissolved	**9800**	ug/L	100	6.2	1	11/26/23 17:41	11/27/23 16:10	7440-42-8	
Iron, Dissolved	**11800**	ug/L	100	30.0	1	11/26/23 17:41	11/27/23 16:10	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/26/23 17:41	11/27/23 16:10	7439-93-2	
Magnesium, Dissolved	**49700**	ug/L	1000	33.6	1	11/26/23 17:41	11/27/23 16:10	7439-95-4	
Molybdenum, Dissolved	**306**	ug/L	10.0	0.78	1	11/26/23 17:41	11/27/23 16:10	7439-98-7	
Potassium, Dissolved	**3710**	ug/L	1000	97.8	1	11/26/23 17:41	11/27/23 16:10	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Aluminum	**25.6**	ug/L	10.0	2.3	1	11/21/23 07:34	11/22/23 05:42	7429-90-5	
Manganese	**1920**	ug/L	20.0	3.4	20	11/21/23 07:34	11/22/23 22:58	7439-96-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/20/23 02:07	11/21/23 11:12	7429-90-5	
Manganese, Dissolved	**1940**	ug/L	20.0	3.6	20	11/20/23 02:07	11/22/23 05:06	7439-96-5	
2320B Alkalinity	Analytical Method: SM 2320B								
	Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**91.4**	mg/L	10.0	10.0	1		11/16/23 23:39		
Alkalinity,Bicarbonate (CaCO3)	**91.4**	mg/L	10.0	10.0	1		11/16/23 23:39		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/16/23 23:39		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
	Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2600**	mg/L	40.0	40.0	1		11/17/23 10:47		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D								
	Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 16:28	18496-25-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

Sample: AP-5A **Lab ID: 50359550001** Collected: 11/12/23 09:20 Received: 11/13/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**7.6**	mg/L	1.0	0.18	5		11/16/23 12:30	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/14/23 00:30	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/14/23 00:30	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.39**	mg/L	0.15	0.15	1	11/28/23 12:30	11/28/23 16:01		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.7**	mg/L	1.0	0.24	1		11/22/23 11:21	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.4**	mg/L	1.0	0.24	1		11/22/23 01:19		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

Sample: AP-6A **Lab ID: 50359550002** Collected: 11/12/23 11:10 Received: 11/13/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.31**	mg/L	0.050	0.0090	1		11/28/23 21:43	24959-67-9	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Iron	**10300**	ug/L	100	18.1	1	11/20/23 16:13	11/28/23 11:31	7439-89-6	
Magnesium	**76900**	ug/L	1000	32.8	1	11/20/23 16:13	11/28/23 11:31	7439-95-4	
Potassium	**2310**	ug/L	1000	120	1	11/20/23 16:13	11/28/23 13:18	7440-09-7	
Silica	**12600**	ug/L	450		1	11/20/23 16:13	11/28/23 11:31	7631-86-9	N2
Sodium	**14800**	ug/L	1000	48.2	1	11/20/23 16:13	11/28/23 11:31	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**4230**	ug/L	100	6.2	1	11/26/23 17:41	11/27/23 16:11	7440-42-8	
Iron, Dissolved	**10600**	ug/L	100	30.0	1	11/26/23 17:41	11/27/23 16:11	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/26/23 17:41	11/27/23 16:11	7439-93-2	
Magnesium, Dissolved	**76900**	ug/L	1000	33.6	1	11/26/23 17:41	11/27/23 16:11	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	11/26/23 17:41	11/27/23 16:11	7439-98-7	
Potassium, Dissolved	**2090**	ug/L	1000	97.8	1	11/26/23 17:41	11/27/23 16:11	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	2.3	1	11/21/23 07:34	11/22/23 23:05	7429-90-5	
Manganese	**1010**	ug/L	10.0	1.7	10	11/21/23 07:34	11/22/23 23:02	7439-96-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/20/23 02:07	11/28/23 09:28	7429-90-5	
Manganese, Dissolved	**1010**	ug/L	10.0	1.8	10	11/20/23 02:07	11/22/23 05:10	7439-96-5	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**336**	mg/L	10.0	10.0	1		11/16/23 23:39		
Alkalinity,Bicarbonate (CaCO3)	**336**	mg/L	10.0	10.0	1		11/16/23 23:39		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/16/23 23:39		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1470**	mg/L	20.0	20.0	1		11/17/23 10:47		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 16:28	18496-25-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

Sample: AP-6A **Lab ID: 50359550002** Collected: 11/12/23 11:10 Received: 11/13/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**4.2**	mg/L	1.0	0.18	5		11/16/23 12:30	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/14/23 00:31	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/14/23 00:31	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.38**	mg/L	0.15	0.15	1	11/28/23 12:30	11/28/23 16:02		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.4**	mg/L	1.0	0.24	1		11/22/23 11:47	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**4.2**	mg/L	1.0	0.24	1		11/22/23 01:30		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

Sample: AP-7 **Lab ID: 50359550003** Collected: 11/12/23 14:00 Received: 11/13/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056								
	Pace Analytical Services - Indianapolis								
Bromide	**0.068**	mg/L	0.050	0.0090	1		11/28/23 22:39	24959-67-9	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Iron	**20300**	ug/L	100	18.1	1	11/20/23 16:13	11/28/23 11:33	7439-89-6	
Magnesium	**66900**	ug/L	1000	32.8	1	11/20/23 16:13	11/28/23 11:33	7439-95-4	
Potassium	**2570**	ug/L	1000	120	1	11/20/23 16:13	11/28/23 13:20	7440-09-7	
Silica	**26100**	ug/L	450		1	11/20/23 16:13	11/28/23 11:33	7631-86-9	N2
Sodium	**10700**	ug/L	1000	48.2	1	11/20/23 16:13	11/28/23 11:33	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Boron, Dissolved	**218**	ug/L	100	6.2	1	11/26/23 17:41	11/27/23 16:13	7440-42-8	
Iron, Dissolved	**21700**	ug/L	100	30.0	1	11/26/23 17:41	11/27/23 16:13	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/26/23 17:41	11/27/23 16:13	7439-93-2	
Magnesium, Dissolved	**70500**	ug/L	1000	33.6	1	11/26/23 17:41	11/27/23 16:13	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	11/26/23 17:41	11/27/23 16:13	7439-98-7	
Potassium, Dissolved	**2440**	ug/L	1000	97.8	1	11/26/23 17:41	11/27/23 16:13	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Aluminum	**16.9**	ug/L	10.0	2.3	1	11/21/23 07:34	11/22/23 23:19	7429-90-5	
Manganese	**1560**	ug/L	10.0	1.7	10	11/21/23 07:34	11/22/23 23:15	7439-96-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/20/23 02:07	11/21/23 11:20	7429-90-5	
Manganese, Dissolved	**1540**	ug/L	20.0	3.6	20	11/20/23 02:07	11/22/23 05:14	7439-96-5	
2320B Alkalinity	Analytical Method: SM 2320B								
	Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**498**	mg/L	10.0	10.0	1		11/16/23 23:39		
Alkalinity,Bicarbonate (CaCO3)	**498**	mg/L	10.0	10.0	1		11/16/23 23:39		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/16/23 23:39		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
	Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**866**	mg/L	20.0	20.0	1		11/17/23 11:02		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D								
	Pace Analytical Services - Indianapolis								
Sulfide	**1.5**	mg/L	0.20	0.050	2		11/14/23 16:28	18496-25-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

Sample: AP-7 **Lab ID: 50359550003** Collected: 11/12/23 14:00 Received: 11/13/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**15.4**	mg/L	2.5	0.44	12.5		11/16/23 14:34	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/14/23 00:33	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/14/23 00:33	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.82**	mg/L	0.15	0.15	1	11/28/23 12:30	11/28/23 16:04		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**2.4**	mg/L	2.0	0.47	2		11/22/23 12:12	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**5.2**	mg/L	2.0	0.47	2		11/22/23 01:41		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

Sample: AP-8 **Lab ID: 50359550004** Collected: 11/12/23 15:15 Received: 11/13/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.21**	mg/L	0.050	0.0090	1		11/29/23 02:19	24959-67-9	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Iron	**142000**	ug/L	100	18.1	1	11/20/23 16:13	11/28/23 11:34	7439-89-6	
Magnesium	**44800**	ug/L	1000	32.8	1	11/20/23 16:13	11/28/23 11:34	7439-95-4	
Potassium	**5040**	ug/L	1000	120	1	11/20/23 16:13	11/28/23 13:21	7440-09-7	
Silica	**41800**	ug/L	450		1	11/20/23 16:13	11/28/23 11:34	7631-86-9	N2
Sodium	**13300**	ug/L	1000	48.2	1	11/20/23 16:13	11/28/23 11:34	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**857**	ug/L	100	6.2	1	11/26/23 17:41	11/27/23 16:14	7440-42-8	
Iron, Dissolved	**152000**	ug/L	100	30.0	1	11/26/23 17:41	11/27/23 16:14	7439-89-6	
Lithium, Dissolved	**42.8**	ug/L	20.0	6.8	1	11/26/23 17:41	11/27/23 16:14	7439-93-2	
Magnesium, Dissolved	**43900**	ug/L	1000	33.6	1	11/26/23 17:41	11/27/23 16:14	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	11/26/23 17:41	11/27/23 16:14	7439-98-7	
Potassium, Dissolved	**4910**	ug/L	1000	97.8	1	11/26/23 17:41	11/27/23 16:14	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**929**	ug/L	20.0	4.7	2	11/21/23 07:34	11/22/23 23:29	7429-90-5	
Manganese	**10900**	ug/L	100	16.8	100	11/21/23 07:34	11/22/23 23:26	7439-96-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	**792**	ug/L	10.0	2.8	1	11/20/23 02:07	11/21/23 11:24	7429-90-5	
Manganese, Dissolved	**10900**	ug/L	100	18.2	100	11/20/23 02:07	11/22/23 05:18	7439-96-5	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**50.6**	mg/L	10.0	10.0	1		11/16/23 23:39		
Alkalinity,Bicarbonate (CaCO3)	**50.6**	mg/L	10.0	10.0	1		11/16/23 23:39		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/16/23 23:39		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1250**	mg/L	20.0	20.0	1		11/17/23 11:02		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 16:28	18496-25-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

Sample: AP-8 **Lab ID: 50359550004** Collected: 11/12/23 15:15 Received: 11/13/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**143**	mg/L	25.0	4.4	125		11/16/23 14:34	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.50	0.055	5		11/14/23 01:01	14797-55-8	D3
Nitrogen, Nitrite	ND	mg/L	0.50	0.020	5		11/14/23 01:01	14797-65-0	D3
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/28/23 12:30	11/28/23 16:04		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**4.3**	mg/L	1.0	0.24	1		11/22/23 12:32	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**6.6**	mg/L	1.0	0.24	1		11/22/23 02:18		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

QC Batch: 764388
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359550001, 50359550002, 50359550003, 50359550004

METHOD BLANK: 3503759 Matrix: Water
Associated Lab Samples: 50359550001, 50359550002, 50359550003, 50359550004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	11/29/23 07:34	

LABORATORY CONTROL SAMPLE: 3503760

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.95	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503761 3503762

Parameter	Units	50359566001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	ND	1	1	0.98	0.98	94	94	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

QC Batch: 763513
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359550001, 50359550002, 50359550003, 50359550004

METHOD BLANK: 3499903 Matrix: Water
Associated Lab Samples: 50359550001, 50359550002, 50359550003, 50359550004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron	ug/L	ND	100	18.1	11/28/23 10:51	
Magnesium	ug/L	ND	1000	32.8	11/28/23 10:51	
Potassium	ug/L	ND	1000	120	11/28/23 10:51	
Silica	ug/L	ND	450		11/28/23 10:51	N2
Sodium	ug/L	ND	1000	48.2	11/28/23 10:51	

LABORATORY CONTROL SAMPLE: 3499904

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	10000	9830	98	80-120	
Magnesium	ug/L	10000	9720	97	80-120	
Potassium	ug/L	10000	8860	89	80-120	
Silica	ug/L	10700	10300	96	80-120	N2
Sodium	ug/L	10000	9180	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3499905 3499906

Parameter	Units	50359550001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	ug/L	11200	10000	10000	20300	20300	91	91	75-125	0	20	
Magnesium	ug/L	48700	10000	10000	56000	56100	73	74	75-125	0	20	P6
Potassium	ug/L	3620	10000	10000	13800	13800	102	102	75-125	0	20	
Silica	ug/L	13600	10700	10700	23200	23300	89	90	75-125	0	20	N2
Sodium	ug/L	54700	10000	10000	61900	61300	72	67	75-125	1	20	P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

QC Batch: 764740
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359550001, 50359550002, 50359550003, 50359550004

METHOD BLANK: 3505233 Matrix: Water
Associated Lab Samples: 50359550001, 50359550002, 50359550003, 50359550004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	11/27/23 16:00	
Iron, Dissolved	ug/L	ND	100	30.0	11/27/23 16:00	
Lithium, Dissolved	ug/L	ND	20.0	6.8	11/27/23 16:00	
Magnesium, Dissolved	ug/L	ND	1000	33.6	11/27/23 16:00	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	11/27/23 16:00	
Potassium, Dissolved	ug/L	ND	1000	97.8	11/27/23 16:00	

LABORATORY CONTROL SAMPLE: 3505234

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	926	93	80-120	
Iron, Dissolved	ug/L	10000	10200	102	80-120	
Lithium, Dissolved	ug/L	1000	993	99	80-120	
Magnesium, Dissolved	ug/L	10000	9590	96	80-120	
Molybdenum, Dissolved	ug/L	1000	969	97	80-120	
Potassium, Dissolved	ug/L	10000	9500	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3505235 3505236

Parameter	Units	50359566001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	ND	1000	1000	1060	1050	99	98	75-125	1	20	
Iron, Dissolved	ug/L	101	10000	10000	10600	10500	105	104	75-125	1	20	
Lithium, Dissolved	ug/L	ND	1000	1000	1040	1030	103	103	75-125	0	20	
Magnesium, Dissolved	ug/L	42500	10000	10000	51600	50900	91	85	75-125	1	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1010	1000	101	100	75-125	1	20	
Potassium, Dissolved	ug/L	ND	10000	10000	10200	10100	101	100	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

QC Batch: 763971
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359550001, 50359550002, 50359550003, 50359550004

METHOD BLANK: 3502115 Matrix: Water
Associated Lab Samples: 50359550001, 50359550002, 50359550003, 50359550004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	2.3	11/22/23 04:07	
Manganese	ug/L	ND	1.0	0.17	11/22/23 04:07	

LABORATORY CONTROL SAMPLE: 3502116

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	392	98	80-120	
Manganese	ug/L	40	40.4	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3502117 3502118

Parameter	Units	50359566001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	90.1	400	400	496	482	101	98	75-125	3	20	
Manganese	ug/L	116	40	40	157	156	102	100	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

QC Batch: 763783
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359550001, 50359550002, 50359550003, 50359550004

METHOD BLANK: 3501276 Matrix: Water
Associated Lab Samples: 50359550001, 50359550002, 50359550003, 50359550004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.8	11/21/23 09:32	
Manganese, Dissolved	ug/L	ND	1.0	0.18	11/21/23 09:32	

LABORATORY CONTROL SAMPLE: 3501277

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	399	100	80-120	
Manganese, Dissolved	ug/L	40	41.6	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3501278 3501279

Parameter	Units	50359566001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	379	380	94	95	75-125	0	20	
Manganese, Dissolved	ug/L	77.1	40	40	115	116	94	97	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

QC Batch: 763489 | Analysis Method: SM 2320B
QC Batch Method: SM 2320B | Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359550001, 50359550002, 50359550003, 50359550004

METHOD BLANK: 3499647 Matrix: Water
Associated Lab Samples: 50359550001, 50359550002, 50359550003, 50359550004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/16/23 23:39	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/16/23 23:39	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/16/23 23:39	

LABORATORY CONTROL SAMPLE: 3499648

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.7	97	90-110	

SAMPLE DUPLICATE: 3499649

Parameter	Units	50359557011 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	282	290	3	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	282	290	3	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3499650

Parameter	Units	50359550004 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50.6	48.8	4	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	50.6	48.8	4	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

QC Batch: 763565
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359550001, 50359550002

METHOD BLANK: 3500094 Matrix: Water
Associated Lab Samples: 50359550001, 50359550002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/17/23 10:40	

LABORATORY CONTROL SAMPLE: 3500095

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	294	98	80-120	

SAMPLE DUPLICATE: 3500097

Parameter	Units	50359654002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1660	1760	5	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

QC Batch: 763567
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359550003, 50359550004

METHOD BLANK: 3500099 Matrix: Water
Associated Lab Samples: 50359550003, 50359550004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/17/23 11:01	

LABORATORY CONTROL SAMPLE: 3500100

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	273	91	80-120	

SAMPLE DUPLICATE: 3500101

Parameter	Units	50359566001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	501	520	4	10	

SAMPLE DUPLICATE: 3500102

Parameter	Units	50359596002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1440	1490	4	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

QC Batch: 762917
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359550001, 50359550002, 50359550003, 50359550004

METHOD BLANK: 3496650 Matrix: Water
Associated Lab Samples: 50359550001, 50359550002, 50359550003, 50359550004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/14/23 16:28	

LABORATORY CONTROL SAMPLE: 3496651

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.54	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3496652 3496653

Parameter	Units	50359566001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.47	0.50	94	100	90-110	6	20	

MATRIX SPIKE SAMPLE: 3496654

Parameter	Units	50359596005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.47	92	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

QC Batch: 763332
QC Batch Method: HACH 8146
Analysis Method: HACH 8146
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359550001, 50359550002

METHOD BLANK: 3498756 Matrix: Water
Associated Lab Samples: 50359550001, 50359550002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/16/23 12:20	H3,N2

LABORATORY CONTROL SAMPLE: 3498757

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	0.99	99	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498758 3498759

Parameter	Units	50359425001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	0.34	1	1	1.5	1.5	114	121	90-110	5	20	H3,M3, N2

MATRIX SPIKE SAMPLE: 3498760

Parameter	Units	50359451001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1.7	5	6.6	98	90-110	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

QC Batch: 763334
QC Batch Method: HACH 8146
Analysis Method: HACH 8146
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359550003, 50359550004

METHOD BLANK: 3498763 Matrix: Water
Associated Lab Samples: 50359550003, 50359550004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/16/23 14:33	H3,N2

LABORATORY CONTROL SAMPLE: 3498764

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	0.98	98	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498765 3498766

Parameter	Units	50359566001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.1	105	104	90-110	1	20	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498767 3498768

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.0	1.1	102	105	90-110	3	20	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

QC Batch: 762688
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359550001, 50359550002, 50359550003, 50359550004

METHOD BLANK: 3495871 Matrix: Water
Associated Lab Samples: 50359550001, 50359550002, 50359550003, 50359550004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/14/23 00:26	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/14/23 00:26	

LABORATORY CONTROL SAMPLE: 3495872

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	104	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	104	90-110	

MATRIX SPIKE SAMPLE: 3495873

Parameter	Units	50359596002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	0.95	95	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	100	90-110	

MATRIX SPIKE SAMPLE: 3495874

Parameter	Units	50359566001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1.6	1	2.7	104	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.1	105	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

QC Batch: 765004
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359550001, 50359550002, 50359550003, 50359550004

METHOD BLANK: 3505959 Matrix: Water
Associated Lab Samples: 50359550001, 50359550002, 50359550003, 50359550004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	11/28/23 15:57	

LABORATORY CONTROL SAMPLE: 3505960

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3505961 3505962

Parameter	Units	50359550002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	0.38			1.8	2.0				7		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

QC Batch: 764240 | Analysis Method: SM 5310C
QC Batch Method: SM 5310C | Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359550001, 50359550002, 50359550003, 50359550004

METHOD BLANK: 3503025 Matrix: Water
Associated Lab Samples: 50359550001, 50359550002, 50359550003, 50359550004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	11/22/23 08:32	

LABORATORY CONTROL SAMPLE: 3503026

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.5	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503027 3503028

Parameter	Units	50359566001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	ND	10	10	10.1	9.7	96	93	80-120	3	20	

MATRIX SPIKE SAMPLE: 3503029

Parameter	Units	50359594001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	17.9	10	38.3	204	80-120	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

QC Batch: 764235
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359550001, 50359550002, 50359550003, 50359550004

METHOD BLANK: 3503004 Matrix: Water
Associated Lab Samples: 50359550001, 50359550002, 50359550003, 50359550004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	11/21/23 20:40	

LABORATORY CONTROL SAMPLE: 3503005

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503006 3503007

Parameter	Units	50359374003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	3.5	10	10	12.6	12.4	91	89	80-120	1	20	

MATRIX SPIKE SAMPLE: 3503008

Parameter	Units	50359425001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	4.4	10	14.0	96	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359550001	**AP-5A**	EPA 9056	764388		
50359550002	**AP-6A**	EPA 9056	764388		
50359550003	**AP-7**	EPA 9056	764388		
50359550004	**AP-8**	EPA 9056	764388		
50359550001	**AP-5A**	EPA 3010	763513	EPA 6010	765016
50359550002	**AP-6A**	EPA 3010	763513	EPA 6010	765016
50359550003	**AP-7**	EPA 3010	763513	EPA 6010	765016
50359550004	**AP-8**	EPA 3010	763513	EPA 6010	765016
50359550001	**AP-5A**	EPA 3010	764740	EPA 6010	764885
50359550002	**AP-6A**	EPA 3010	764740	EPA 6010	764885
50359550003	**AP-7**	EPA 3010	764740	EPA 6010	764885
50359550004	**AP-8**	EPA 3010	764740	EPA 6010	764885
50359550001	**AP-5A**	EPA 200.2	763971	EPA 6020	764263
50359550002	**AP-6A**	EPA 200.2	763971	EPA 6020	764263
50359550003	**AP-7**	EPA 200.2	763971	EPA 6020	764263
50359550004	**AP-8**	EPA 200.2	763971	EPA 6020	764263
50359550001	**AP-5A**	EPA 200.2	763783	EPA 6020	764101
50359550002	**AP-6A**	EPA 200.2	763783	EPA 6020	764101
50359550003	**AP-7**	EPA 200.2	763783	EPA 6020	764101
50359550004	**AP-8**	EPA 200.2	763783	EPA 6020	764101
50359550001	**AP-5A**	SM 2320B	763489		
50359550002	**AP-6A**	SM 2320B	763489		
50359550003	**AP-7**	SM 2320B	763489		
50359550004	**AP-8**	SM 2320B	763489		
50359550001	**AP-5A**	SM 2540C	763565		
50359550002	**AP-6A**	SM 2540C	763565		
50359550003	**AP-7**	SM 2540C	763567		
50359550004	**AP-8**	SM 2540C	763567		
50359550001	**AP-5A**	SM 4500-S2-D	762917		
50359550002	**AP-6A**	SM 4500-S2-D	762917		
50359550003	**AP-7**	SM 4500-S2-D	762917		
50359550004	**AP-8**	SM 4500-S2-D	762917		
50359550001	**AP-5A**	HACH 8146	763332		
50359550002	**AP-6A**	HACH 8146	763332		
50359550003	**AP-7**	HACH 8146	763334		
50359550004	**AP-8**	HACH 8146	763334		
50359550001	**AP-5A**	EPA 353.2	762688		
50359550002	**AP-6A**	EPA 353.2	762688		
50359550003	**AP-7**	EPA 353.2	762688		
50359550004	**AP-8**	EPA 353.2	762688		
50359550001	**AP-5A**	EPA 365.1	765004	EPA 365.1	765299
50359550002	**AP-6A**	EPA 365.1	765004	EPA 365.1	765299
50359550003	**AP-7**	EPA 365.1	765004	EPA 365.1	765299

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359550

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359550004	**AP-8**	EPA 365.1	765004	EPA 365.1	765299
50359550001	**AP-5A**	SM 5310C	764240		
50359550002	**AP-6A**	SM 5310C	764240		
50359550003	**AP-7**	SM 5310C	764240		
50359550004	**AP-8**	SM 5310C	764240		
50359550001	**AP-5A**	SM 5310C	764235		
50359550002	**AP-6A**	SM 5310C	764235		
50359550003	**AP-7**	SM 5310C	764235		
50359550004	**AP-8**	SM 5310C	764235		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request Doc

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be c

WO# : 50359550

50359550

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P3R4 Nov 2023	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:		Pace Profile #:	10498/52

Regulatory Agency
State / Location
IN

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO2, NO3 Wet	(Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity*, Ferrous Iron, pH	TOC by 5310C	DOC by 5310C	Sulfide	Phosphate	Residual Chlorine (Y/N)	
																		Requested Analysis Filtered (Y/N)				Y			Y					
1	AP-5A			11/12/23	0855	11/12/23	0930		9	X	X	X		X					X	X	X	X	X	X	X	X	X		QC1
2	AP-6A			11/12/23	1040	11/12/23	1110		9	X	X	X		X					X	X	X	X	X	X	X	X	X		QC2
3	AP-7			11/12/23	1335	11/12/23	1400		9	X	X	X		X					X	X	X	X	X	X	X	X	X		QC3
4	AP-8			11/12/23	1500	11/12/23	1515		9	X	X	X		X					X	X	X	X	X	X	X	X	X		QC4
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
* Metals: 6010 Fe, Mg, Na, K, sila 6020 - Al, Mn	JOB	11/13/23	9:00 AM	Jay Williams	11/13	9:00 AM	
** Dissolved FF 6010 (B, Fe, Mo, Li, Mg, K)	Jay Williams	11-13	11:15 AM		11/13/23	11:15	
Diss 6020 - Al, Mn							
Alkalinity = (Total , Bicarb & Carb)							

SAMPLE CONDITIONS	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	1.1	Y	Y	Y
	1.3	↓	↓	↓
	1.0	↓	↓	↓

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Josh O'Brian

SIGNATURE of SAMPLER: JOB

DATE Signed: 11-12-23

F-IN-Q-290-rev.23, 26Jun2023

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: IBTM 11/13/23 12:50

1. **Courier:** ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D (E) F G H

4. **Cooler Temperature(s):** 1.1/1.1 | 1.3/1.3 | 1.0/1.0 | | **(Initial/Corrected)** **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**

5. **Packing Material:** ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☑ Other plastic bags

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	X		
Short Hold Time Analysis (48 hours or less)? **Analysis:** Nitrate / Nitrite	X	X IBTM				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 14:15			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
				Present	Absent	No VOA Vials Sent
Containers Intact?:	X		Headspace in VOA Vials (>6mm): See Containter Count form for details			X
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1												1	1				1	2	1	1	1		1					SL	✓	✓		✓
2												↓	↓				↓	↓	↓	↓	↓		↓					↓	↓	↓		↓
3												↓	↓				↓	↓	↓	↓	↓		↓					↓	↓	↓		↓
4												↓	↓				↓	↓	↓	↓	↓		↓					↓	↓	↓		↓
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 12, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359561

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 13, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359561

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359561

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50359561001	**AP-5A**	Water	11/12/23 09:20	11/13/23 11:15
50359561002	**AP-6A**	Water	11/12/23 11:10	11/13/23 11:15
50359561003	**AP-7**	Water	11/12/23 14:00	11/13/23 11:15
50359561004	**AP-8**	Water	11/12/23 15:15	11/13/23 11:15

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359561

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50359561001	**AP-5A**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	6	PASI-I
		EPA 6020	MGM	5	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JJY	1	PASI-PA
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	RJP	1	PASI-I
50359561002	**AP-6A**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	6	PASI-I
		EPA 6020	MGM	5	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JJY	1	PASI-PA
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	RJP	1	PASI-I
50359561003	**AP-7**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	6	PASI-I
		EPA 6020	MGM	5	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JJY	1	PASI-PA
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	RJP	1	PASI-I
50359561004	**AP-8**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	6	PASI-I
		EPA 6020	CAW	5	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JJY	1	PASI-PA
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	RJP	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359561

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359561001	**AP-5A**					
EPA 9056	Chloride	53.0	mg/L	2.5	11/28/23 23:15	
EPA 9056	Sulfate	1770	mg/L	25.0	11/28/23 23:34	
EPA 6010	Boron	9690	ug/L	100	11/28/23 11:28	
EPA 6010	Calcium	631000	ug/L	5000	11/28/23 12:34	
EPA 6010	Molybdenum	310	ug/L	10.0	11/28/23 11:28	
EPA 6020	Barium	24.5	ug/L	1.0	11/29/23 05:48	
EPA 903.1	Radium-226	0.000 ± 0.641 (1.30) C:NA T:90%	pCi/L		12/08/23 12:10	
EPA 904.0	Radium-228	0.129 ± 0.323 (0.722) C:82% T:85%	pCi/L		12/04/23 15:27	
Total Radium Calculation	Total Radium	0.129 ± 0.964 (2.02)	pCi/L		12/08/23 14:03	
SM 2540C	Total Dissolved Solids	2520	mg/L	40.0	11/17/23 11:03	
SM 4500-H+B	pH at 25 Degrees C	6.8	Std. Units	0.10	11/29/23 14:10	H3
50359561002	**AP-6A**					
EPA 9056	Chloride	23.9	mg/L	0.25	11/28/23 23:52	
EPA 9056	Sulfate	707	mg/L	25.0	11/29/23 00:29	
EPA 6010	Boron	4270	ug/L	100	11/28/23 11:30	
EPA 6010	Calcium	313000	ug/L	2000	11/28/23 12:35	
EPA 6020	Barium	23.1	ug/L	1.0	11/29/23 05:52	
EPA 903.1	Radium-226	0.435 ± 0.705 (1.23) C:NA T:86%	pCi/L		12/08/23 12:10	
EPA 904.0	Radium-228	0.369 ± 0.344 (0.697) C:82% T:84%	pCi/L		12/04/23 15:27	
Total Radium Calculation	Total Radium	0.804 ± 1.05 (1.93)	pCi/L		12/08/23 14:03	
SM 2540C	Total Dissolved Solids	1420	mg/L	20.0	11/17/23 11:03	
SM 4500-H+B	pH at 25 Degrees C	6.9	Std. Units	0.10	11/29/23 14:11	H3
50359561003	**AP-7**					
EPA 9056	Chloride	4.7	mg/L	0.25	11/29/23 00:47	
EPA 9056	Fluoride	0.13	mg/L	0.10	11/29/23 00:47	
EPA 9056	Sulfate	328	mg/L	2.5	11/29/23 01:06	
EPA 6010	Boron	202	ug/L	100	11/28/23 11:31	
EPA 6010	Calcium	217000	ug/L	2000	11/28/23 12:37	
EPA 6020	Barium	84.8	ug/L	1.0	11/29/23 05:56	
EPA 903.1	Radium-226	0.373 ± 0.858 (1.55) C:NA T:93%	pCi/L		12/08/23 12:10	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359561

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359561003	**AP-7**					
EPA 904.0	Radium-228	1.42 ± 0.523 (0.748) C:77% T:82%	pCi/L		12/04/23 15:27	
Total Radium Calculation	Total Radium	1.79 ± 1.38 (2.30)	pCi/L		12/08/23 14:03	
SM 2540C	Total Dissolved Solids	916	mg/L	20.0	11/17/23 11:04	
SM 4500-H+B	pH at 25 Degrees C	6.7	Std. Units	0.10	11/29/23 14:13	H3
50359561004	**AP-8**					
EPA 9056	Chloride	19.0	mg/L	0.25	11/29/23 02:37	
EPA 9056	Fluoride	0.73	mg/L	0.10	11/29/23 02:37	
EPA 9056	Sulfate	763	mg/L	25.0	11/29/23 03:14	
EPA 6010	Boron	839	ug/L	100	11/28/23 11:33	
EPA 6010	Cadmium	4.0	ug/L	2.0	11/28/23 11:33	
EPA 6010	Calcium	155000	ug/L	1000	11/28/23 11:33	
EPA 6010	Lithium	43.3	ug/L	20.0	11/28/23 11:33	
EPA 6020	Arsenic	6.0	ug/L	1.0	11/23/23 01:25	
EPA 6020	Barium	20.3	ug/L	1.0	11/23/23 01:25	
EPA 6020	Cobalt	410	ug/L	3.0	11/27/23 23:58	
EPA 903.1	Radium-226	0.259 ± 0.610 (1.13) C:NA T:93%	pCi/L		12/08/23 12:10	
EPA 904.0	Radium-228	0.403 ± 0.328 (0.644) C:86% T:82%	pCi/L		12/04/23 15:27	
Total Radium Calculation	Total Radium	0.662 ± 0.938 (1.77)	pCi/L		12/08/23 14:03	
SM 2540C	Total Dissolved Solids	1240	mg/L	20.0	11/17/23 11:04	
SM 4500-H+B	pH at 25 Degrees C	6.0	Std. Units	0.10	11/29/23 14:12	H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359561

Sample: AP-5A **Lab ID: 50359561001** Collected: 11/12/23 09:20 Received: 11/13/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**53.0**	mg/L	2.5	0.67	10		11/28/23 23:15	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/28/23 22:57	16984-48-8	
Sulfate	**1770**	mg/L	25.0	19.0	100		11/28/23 23:34	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**9690**	ug/L	100	6.2	1	11/20/23 22:10	11/28/23 11:28	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/20/23 22:10	11/28/23 11:28	7440-43-9	
Calcium	**631000**	ug/L	5000	338	5	11/20/23 22:10	11/28/23 12:34	7440-70-2	
Lead	ND	ug/L	10.0	2.5	1	11/20/23 22:10	11/28/23 11:28	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/20/23 22:10	11/28/23 11:28	7439-93-2	
Molybdenum	**310**	ug/L	10.0	0.78	1	11/20/23 22:10	11/28/23 11:28	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Arsenic	ND	ug/L	1.0	0.10	1	11/21/23 15:15	11/29/23 05:48	7440-38-2	
Barium	**24.5**	ug/L	1.0	0.14	1	11/21/23 15:15	11/29/23 05:48	7440-39-3	
Cobalt	ND	ug/L	1.0	0.082	1	11/21/23 15:15	11/29/23 05:48	7440-48-4	
Selenium	ND	ug/L	1.0	0.44	1	11/21/23 15:15	11/29/23 05:48	7782-49-2	
Thallium	ND	ug/L	1.0	0.072	1	11/21/23 15:15	11/29/23 05:48	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2520**	mg/L	40.0	40.0	1		11/17/23 11:03		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.8**	Std. Units	0.10	0.10	1		11/29/23 14:10		H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359561

Sample: AP-6A **Lab ID: 50359561002** Collected: 11/12/23 11:10 Received: 11/13/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**23.9**	mg/L	0.25	0.067	1		11/28/23 23:52	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/28/23 23:52	16984-48-8	
Sulfate	**707**	mg/L	25.0	19.0	100		11/29/23 00:29	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**4270**	ug/L	100	6.2	1	11/20/23 22:10	11/28/23 11:30	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/20/23 22:10	11/28/23 11:30	7440-43-9	
Calcium	**313000**	ug/L	2000	135	2	11/20/23 22:10	11/28/23 12:35	7440-70-2	
Lead	ND	ug/L	10.0	2.5	1	11/20/23 22:10	11/28/23 11:30	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/20/23 22:10	11/28/23 11:30	7439-93-2	
Molybdenum	ND	ug/L	10.0	0.78	1	11/20/23 22:10	11/28/23 11:30	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Arsenic	ND	ug/L	1.0	0.10	1	11/21/23 15:15	11/29/23 05:52	7440-38-2	
Barium	**23.1**	ug/L	1.0	0.14	1	11/21/23 15:15	11/29/23 05:52	7440-39-3	
Cobalt	ND	ug/L	1.0	0.082	1	11/21/23 15:15	11/29/23 05:52	7440-48-4	
Selenium	ND	ug/L	1.0	0.44	1	11/21/23 15:15	11/29/23 05:52	7782-49-2	
Thallium	ND	ug/L	1.0	0.072	1	11/21/23 15:15	11/29/23 05:52	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1420**	mg/L	20.0	20.0	1		11/17/23 11:03		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.9**	Std. Units	0.10	0.10	1		11/29/23 14:11		H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359561

Sample: AP-7 **Lab ID: 50359561003** Collected: 11/12/23 14:00 Received: 11/13/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**4.7**	mg/L	0.25	0.067	1		11/29/23 00:47	16887-00-6	
Fluoride	**0.13**	mg/L	0.10	0.017	1		11/29/23 00:47	16984-48-8	
Sulfate	**328**	mg/L	2.5	1.9	10		11/29/23 01:06	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**202**	ug/L	100	6.2	1	11/20/23 22:10	11/28/23 11:31	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/20/23 22:10	11/28/23 11:31	7440-43-9	
Calcium	**217000**	ug/L	2000	135	2	11/20/23 22:10	11/28/23 12:37	7440-70-2	
Lead	ND	ug/L	10.0	2.5	1	11/20/23 22:10	11/28/23 11:31	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/20/23 22:10	11/28/23 11:31	7439-93-2	
Molybdenum	ND	ug/L	10.0	0.78	1	11/20/23 22:10	11/28/23 11:31	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Arsenic	ND	ug/L	1.0	0.10	1	11/21/23 15:15	11/29/23 05:56	7440-38-2	
Barium	**84.8**	ug/L	1.0	0.14	1	11/21/23 15:15	11/29/23 05:56	7440-39-3	
Cobalt	ND	ug/L	1.0	0.082	1	11/21/23 15:15	11/29/23 05:56	7440-48-4	
Selenium	ND	ug/L	1.0	0.44	1	11/21/23 15:15	11/29/23 05:56	7782-49-2	
Thallium	ND	ug/L	1.0	0.072	1	11/21/23 15:15	11/29/23 05:56	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**916**	mg/L	20.0	20.0	1		11/17/23 11:04		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.7**	Std. Units	0.10	0.10	1		11/29/23 14:13		H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359561

Sample: AP-8 **Lab ID: 50359561004** Collected: 11/12/23 15:15 Received: 11/13/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056								
	Pace Analytical Services - Indianapolis								
Chloride	**19.0**	mg/L	0.25	0.067	1		11/29/23 02:37	16887-00-6	
Fluoride	**0.73**	mg/L	0.10	0.017	1		11/29/23 02:37	16984-48-8	
Sulfate	**763**	mg/L	25.0	19.0	100		11/29/23 03:14	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Boron	**839**	ug/L	100	6.2	1	11/20/23 22:10	11/28/23 11:33	7440-42-8	
Cadmium	**4.0**	ug/L	2.0	0.60	1	11/20/23 22:10	11/28/23 11:33	7440-43-9	
Calcium	**155000**	ug/L	1000	67.7	1	11/20/23 22:10	11/28/23 11:33	7440-70-2	
Lead	ND	ug/L	10.0	2.5	1	11/20/23 22:10	11/28/23 11:33	7439-92-1	
Lithium	**43.3**	ug/L	20.0	6.8	1	11/20/23 22:10	11/28/23 11:33	7439-93-2	
Molybdenum	ND	ug/L	10.0	0.78	1	11/20/23 22:10	11/28/23 11:33	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Arsenic	**6.0**	ug/L	1.0	0.075	1	11/22/23 07:28	11/23/23 01:25	7440-38-2	
Barium	**20.3**	ug/L	1.0	0.077	1	11/22/23 07:28	11/23/23 01:25	7440-39-3	
Cobalt	**410**	ug/L	3.0	0.14	3	11/22/23 07:28	11/27/23 23:58	7440-48-4	
Selenium	ND	ug/L	1.0	0.20	1	11/22/23 07:28	11/23/23 01:25	7782-49-2	
Thallium	ND	ug/L	1.0	0.040	1	11/22/23 07:28	11/23/23 01:25	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
	Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1240**	mg/L	20.0	20.0	1		11/17/23 11:04		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
	Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.0**	Std. Units	0.10	0.10	1		11/29/23 14:12		H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359561

QC Batch: 764388
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359561001, 50359561002, 50359561003, 50359561004

METHOD BLANK: 3503759 Matrix: Water
Associated Lab Samples: 50359561001, 50359561002, 50359561003, 50359561004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	11/29/23 07:34	
Fluoride	mg/L	ND	0.10	0.017	11/29/23 07:34	
Sulfate	mg/L	ND	0.25	0.19	11/29/23 07:34	

LABORATORY CONTROL SAMPLE: 3503760

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.5	99	80-120	
Fluoride	mg/L	1	0.99	99	80-120	
Sulfate	mg/L	5	5.1	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503761 3503762

Parameter	Units	50359566001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	5.5	2.5	2.5	7.7	7.7	88	87	80-120	0	15	
Fluoride	mg/L	0.11	1	1	1.1	1.1	102	102	80-120	0	15	
Sulfate	mg/L	123	50	50	172	172	97	98	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359561

QC Batch: 763516
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359561001, 50359561002, 50359561003, 50359561004

METHOD BLANK: 3499913 Matrix: Water
Associated Lab Samples: 50359561001, 50359561002, 50359561003, 50359561004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	11/28/23 11:16	
Cadmium	ug/L	ND	2.0	0.60	11/28/23 11:16	
Calcium	ug/L	ND	1000	67.7	11/28/23 11:16	
Lead	ug/L	ND	10.0	2.5	11/28/23 11:16	
Lithium	ug/L	ND	20.0	6.8	11/28/23 11:16	
Molybdenum	ug/L	ND	10.0	0.78	11/28/23 11:16	

LABORATORY CONTROL SAMPLE: 3499914

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	926	93	80-120	
Cadmium	ug/L	1000	932	93	80-120	
Calcium	ug/L	10000	9970	100	80-120	
Lead	ug/L	1000	890	89	80-120	
Lithium	ug/L	1000	952	95	80-120	
Molybdenum	ug/L	1000	978	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3499915 3499916

Parameter	Units	50359557008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	2490	1000	1000	3440	3260	94	76	75-125	5	20	
Cadmium	ug/L	ND	1000	1000	955	952	96	95	75-125	0	20	
Calcium	ug/L	341000	10000	10000	343000	323000	20	-181	75-125	6	20	E,P6
Lead	ug/L	ND	1000	1000	824	831	82	83	75-125	1	20	
Lithium	ug/L	418	1000	1000	1370	1340	95	93	75-125	2	20	
Molybdenum	ug/L	ND	1000	1000	976	980	97	98	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359561

QC Batch: 764173
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359561001, 50359561002, 50359561003

METHOD BLANK: 3502818 Matrix: Water
Associated Lab Samples: 50359561001, 50359561002, 50359561003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	ug/L	ND	1.0	0.10	11/29/23 04:16	
Barium	ug/L	ND	1.0	0.14	11/29/23 04:16	
Cobalt	ug/L	ND	1.0	0.082	11/29/23 04:16	
Selenium	ug/L	ND	1.0	0.44	11/29/23 04:16	
Thallium	ug/L	ND	1.0	0.072	11/29/23 04:16	

LABORATORY CONTROL SAMPLE: 3502819

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	40	39.3	98	80-120	
Barium	ug/L	40	39.0	98	80-120	
Cobalt	ug/L	40	41.0	102	80-120	
Selenium	ug/L	40	39.7	99	80-120	
Thallium	ug/L	40	40.4	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3502820 3502821

Parameter	Units	50359557001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	ND	40	40	41.1	41.5	99	100	75-125	1	20	
Barium	ug/L	17.9	40	40	56.7	56.8	97	97	75-125	0	20	
Cobalt	ug/L	ND	40	40	37.9	38.0	93	94	75-125	0	20	
Selenium	ug/L	ND	40	40	42.1	39.4	103	97	75-125	7	20	
Thallium	ug/L	ND	40	40	38.7	38.5	96	96	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359561

QC Batch: 764329
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359561004

METHOD BLANK: 3503424 Matrix: Water
Associated Lab Samples: 50359561004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	ug/L	ND	1.0	0.075	11/23/23 01:15	
Barium	ug/L	ND	1.0	0.077	11/23/23 01:15	
Cobalt	ug/L	ND	1.0	0.046	11/23/23 01:15	
Selenium	ug/L	ND	1.0	0.20	11/23/23 01:15	
Thallium	ug/L	ND	1.0	0.040	11/23/23 01:15	

LABORATORY CONTROL SAMPLE: 3503425

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	40	38.8	97	80-120	
Barium	ug/L	40	39.4	98	80-120	
Cobalt	ug/L	40	41.0	102	80-120	
Selenium	ug/L	40	40.7	102	80-120	
Thallium	ug/L	40	41.4	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503426 3503427

Parameter	Units	50359596005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	ND	40	40	38.8	38.3	96	95	75-125	1	20	
Barium	ug/L	33.0	40	40	71.6	70.7	97	94	75-125	1	20	
Cobalt	ug/L	ND	40	40	38.2	37.9	95	94	75-125	1	20	
Selenium	ug/L	ND	40	40	39.3	39.4	98	98	75-125	0	20	
Thallium	ug/L	ND	40	40	42.3	42.3	106	106	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359561

QC Batch: 763567
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359561001, 50359561002, 50359561003, 50359561004

METHOD BLANK: 3500099 Matrix: Water
Associated Lab Samples: 50359561001, 50359561002, 50359561003, 50359561004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/17/23 11:01	

LABORATORY CONTROL SAMPLE: 3500100

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	273	91	80-120	

SAMPLE DUPLICATE: 3500101

Parameter	Units	50359566001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	501	520	4	10	

SAMPLE DUPLICATE: 3500102

Parameter	Units	50359596002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1440	1490	4	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359561

QC Batch: 765348
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359561001, 50359561002, 50359561003, 50359561004

SAMPLE DUPLICATE: 3507380

Parameter	Units	50359566001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.4	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359561

Sample: AP-5A **Lab ID: 50359561001** Collected: 11/12/23 09:20 Received: 11/13/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.000 ± 0.641 (1.30) C:NA T:90%**	pCi/L	12/08/23 12:10	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.129 ± 0.323 (0.722) C:82% T:85%**	pCi/L	12/04/23 15:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.129 ± 0.964 (2.02)**	pCi/L	12/08/23 14:03	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359561

Sample: AP-6A **Lab ID: 50359561002** Collected: 11/12/23 11:10 Received: 11/13/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.435 ± 0.705 (1.23) C:NA T:86%**	pCi/L	12/08/23 12:10	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.369 ± 0.344 (0.697) C:82% T:84%**	pCi/L	12/04/23 15:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.804 ± 1.05 (1.93)**	pCi/L	12/08/23 14:03	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359561

Sample: AP-7 **Lab ID: 50359561003** Collected: 11/12/23 14:00 Received: 11/13/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.373 ± 0.858 (1.55) C:NA T:93%**	pCi/L	12/08/23 12:10	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.42 ± 0.523 (0.748) C:77% T:82%**	pCi/L	12/04/23 15:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.79 ± 1.38 (2.30)**	pCi/L	12/08/23 14:03	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359561

Sample: AP-8 **Lab ID: 50359561004** Collected: 11/12/23 15:15 Received: 11/13/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.259 ± 0.610 (1.13) C:NA T:93%**	pCi/L	12/08/23 12:10	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.403 ± 0.328 (0.644) C:86% T:82%**	pCi/L	12/04/23 15:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.662 ± 0.938 (1.77)**	pCi/L	12/08/23 14:03	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359561

QC Batch: 630822
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359561001, 50359561002, 50359561003, 50359561004

METHOD BLANK: 3075674 Matrix: Water
Associated Lab Samples: 50359561001, 50359561002, 50359561003, 50359561004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.127 ± 0.353 (0.685) C:NA T:93%	pCi/L	12/08/23 11:58	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359561

QC Batch: 630823
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359561001, 50359561002, 50359561003, 50359561004

METHOD BLANK: 3075675 Matrix: Water
Associated Lab Samples: 50359561001, 50359561002, 50359561003, 50359561004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.692 ± 0.315 (0.509) C:89% T:91%	pCi/L	12/04/23 12:07	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359561

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg Nov 2023 P2R4
Pace Project No.: 50359561

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359561001	**AP-5A**	EPA 9056	764388		
50359561002	**AP-6A**	EPA 9056	764388		
50359561003	**AP-7**	EPA 9056	764388		
50359561004	**AP-8**	EPA 9056	764388		
50359561001	**AP-5A**	EPA 3010	763516	EPA 6010	765009
50359561002	**AP-6A**	EPA 3010	763516	EPA 6010	765009
50359561003	**AP-7**	EPA 3010	763516	EPA 6010	765009
50359561004	**AP-8**	EPA 3010	763516	EPA 6010	765009
50359561001	**AP-5A**	EPA 200.2	764173	EPA 6020	764419
50359561002	**AP-6A**	EPA 200.2	764173	EPA 6020	764419
50359561003	**AP-7**	EPA 200.2	764173	EPA 6020	764419
50359561004	**AP-8**	EPA 200.2	764329	EPA 6020	764580
50359561001	**AP-5A**	EPA 903.1	630822		
50359561002	**AP-6A**	EPA 903.1	630822		
50359561003	**AP-7**	EPA 903.1	630822		
50359561004	**AP-8**	EPA 903.1	630822		
50359561001	**AP-5A**	EPA 904.0	630823		
50359561002	**AP-6A**	EPA 904.0	630823		
50359561003	**AP-7**	EPA 904.0	630823		
50359561004	**AP-8**	EPA 904.0	630823		
50359561001	**AP-5A**	Total Radium Calculation	634870		
50359561002	**AP-6A**	Total Radium Calculation	634870		
50359561003	**AP-7**	Total Radium Calculation	634870		
50359561004	**AP-8**	Total Radium Calculation	634870		
50359561001	**AP-5A**	SM 2540C	763567		
50359561002	**AP-6A**	SM 2540C	763567		
50359561003	**AP-7**	SM 2540C	763567		
50359561004	**AP-8**	SM 2540C	763567		
50359561001	**AP-5A**	SM 4500-H+B	765348		
50359561002	**AP-6A**	SM 4500-H+B	765348		
50359561003	**AP-7**	SM 4500-H+B	765348		
50359561004	**AP-8**	SM 4500-H+B	765348		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

CHAIN-OF-CUSTODY / Analytical Request D

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields mu

WO# : 50359561

50359561

Pace Analytical
WWW.PACELABS.COM

Section A
Required Client Information:

Company:	Atlas Indianapolis
Address:	7988 Centerpoint Drive Suite 100
	Indianapolis, IN 46256
Email:	mark.breting@oneatlas.com
Phone:	(317)579-4082 Fax:
Requested Due Date:	

Section B
Required Project Information:

Report To:	Mark Breting
Copy To:	
Purchase Order #:	
Project Name:	Petersburg Nov 2023 P2R4
Project #:	

Section C
Invoice Information:

Attention:	Accounts Payable - Paula Sedam
Company Name:	Atlas Indianapolis
Address:	
Pace Quote:	
Pace Project Manager:	Will Statz
Pace Profile #:	10498/51

Regulatory Agency

State / Location
IN

Requested Analysis Filtered (Y/N)

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	Metals, Total*	TDS/pH	(Cl, F, SO4) IC	Rad-226/228 + Sum	Residual Chlorine (Y/N)	
1	AP-5A			11/12/23	0855	11/12/23	0920		5	X		X							X	X	X	X		001
2	AP-6A			11/12/23	1040	11/12/23	1110		5	X		X							X	X	X	X		002
3	AP-7			11/12/23	1350	11/12/23	1400		5	X		X							X	X	X	X		003
4	AP-8			11/12/23	1500	11/12/23	1515		5	X		X							X	X	X	X		004
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																									

ADDITIONAL COMMENTS

Metals* 6010: B, Pb, Mo, Cd, Ca, Li (6)
6020: Co, As, Se, Ba, Tl (5)
Rad 226/228 to Pace PA

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature]	11/12/23	9:00 AM	[signature]	~~9:00 AM~~ 11/13	9:00 AM 11:15
[signature]	11/13	11:15 AM	[signature]	11/13/23	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Josh O'Brian
SIGNATURE of SAMPLER: [signature]
DATE Signed: 11/12/23

SAMPLE CONDITIONS

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
1.3	Y	Y	Y
1.0	↓	↓	↓

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: IBM 11/13/23 13:15

1. **Courier:** ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D (E) F G H

4. **Cooler Temperature(s):** 1.3/1.3 | 1.0/1.0 | | |
(Initial/Corrected) **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**

5. **Packing Material:** ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☑ Other plastic bags

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X
Short Hold Time Analysis (48 hours or less)? Analysis:		X
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:	
Rush TAT Requested (4 days or less):		X
Custody Signatures Present?	X	
Containers Intact?:	X	
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X	
Extra labels on Terracore Vials? (soils only)		

	Yes	No	N/A
All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** ~~Any non-conformance~~ to pH recommendations will be noted on the container count form	X		
	Present	Absent	N/A
Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Headspace Wisconsin Sulfide?			X
	Present	Absent	No VOA Vials Sent
Headspace in VOA Vials (>6mm): See Containter Count form for details			X
Trip Blank Present?		X	
Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
Red	Yellow	Green	Black
HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix	Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
1																2		2	1									WT	✓			
2																↓		↓	↓									↓	↓			
3																↓		↓	↓									↓	↓			
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 12, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359566

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 13, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359566

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359566

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50359566001	**MW-45B**	Water	11/13/23 12:45	11/13/23 15:30
50359566002	**MW-45B MS**	Water	11/13/23 12:45	11/13/23 15:30
50359566003	**MW-45B MSD**	Water	11/13/23 12:45	11/13/23 15:30

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359566

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50359566001	**MW-45B**	EPA 9056	ADM	4	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	ELK	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JJY	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	RJP	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359566002	**MW-45B MS**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
50359566003	**MW-45B MSD**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359566

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359566001	**MW-45B**					
EPA 9056	Chloride	5.5	mg/L	0.25	11/29/23 04:09	
EPA 9056	Fluoride	0.11	mg/L	0.10	11/29/23 04:09	
EPA 9056	Sulfate	123	mg/L	2.5	11/29/23 04:28	
EPA 6010	Calcium	121000	ug/L	1000	11/28/23 21:24	
EPA 6010	Iron	272	ug/L	100	11/28/23 21:24	
EPA 6010	Magnesium	40900	ug/L	1000	11/28/23 21:24	
EPA 6010	Silica	14600	ug/L	450	11/28/23 21:24	N2
EPA 6010	Sodium	4230	ug/L	1000	11/28/23 21:24	
EPA 6010	Iron, Dissolved	101	ug/L	100	11/27/23 16:16	
EPA 6010	Magnesium, Dissolved	42500	ug/L	1000	11/27/23 16:16	
EPA 6020	Aluminum	90.1	ug/L	10.0	11/22/23 22:14	
EPA 6020	Barium	60.8	ug/L	1.0	11/22/23 06:03	
EPA 6020	Manganese	116	ug/L	1.0	11/22/23 22:14	
EPA 6020	Manganese, Dissolved	77.1	ug/L	1.0	11/21/23 11:36	
EPA 903.1	Radium-226	0.0687 ± 0.404 (0.825) C:NA T:89%	pCi/L		12/08/23 12:10	
EPA 904.0	Radium-228	0.240 ± 0.258 (0.531) C:88% T:82%	pCi/L		12/04/23 12:08	
Total Radium Calculation	Total Radium	0.309 ± 0.662 (1.36)	pCi/L		12/08/23 14:03	
SM 2320B	Alkalinity, Total as CaCO3	340	mg/L	10.0	11/17/23 02:55	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	340	mg/L	10.0	11/17/23 02:55	
SM 2540C	Total Dissolved Solids	501	mg/L	10.0	11/17/23 11:04	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	11/29/23 14:14	H3
EPA 353.2	Nitrogen, Nitrate	1.6	mg/L	0.10	11/14/23 00:50	
SM 5310C	Dissolved Organic Carbon	1.5	mg/L	1.0	11/22/23 03:03	
50359566002	**MW-45B MS**					
EPA 903.1	Radium-226	116.06 %REC ± NA (NA) C:NA T:NA	pCi/L		12/08/23 12:10	
EPA 904.0	Radium-228	109.20% REC ± NA (NA) C:NA T:NA	pCi/L		12/04/23 12:08	
50359566003	**MW-45B MSD**					
EPA 903.1	Radium-226	123.78 %REC 6.44RPD ± NA (NA) C:NA T:NA	pCi/L		12/08/23 12:10	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359566

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359566003	**MW-45B MSD**					
EPA 904.0	Radium-228	87.84% REC 21.67 RPD ± NA (NA) C:NA T:NA	pCi/L		12/04/23 15:27	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359566

Sample: MW-45B **Lab ID: 50359566001** Collected: 11/13/23 12:45 Received: 11/13/23 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	ND	mg/L	0.050	0.0090	1		11/29/23 04:09	24959-67-9	
Chloride	**5.5**	mg/L	0.25	0.067	1		11/29/23 04:09	16887-00-6	
Fluoride	**0.11**	mg/L	0.10	0.017	1		11/29/23 04:09	16984-48-8	
Sulfate	**123**	mg/L	2.5	1.9	10		11/29/23 04:28	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	ND	ug/L	100	6.2	1	11/21/23 16:10	11/28/23 21:24	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/21/23 16:10	11/28/23 21:24	7440-43-9	
Calcium	**121000**	ug/L	1000	67.7	1	11/21/23 16:10	11/28/23 21:24	7440-70-2	
Iron	**272**	ug/L	100	30.0	1	11/21/23 16:10	11/28/23 21:24	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	11/21/23 16:10	11/28/23 21:24	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/21/23 16:10	11/28/23 21:24	7439-93-2	
Magnesium	**40900**	ug/L	1000	33.6	1	11/21/23 16:10	11/28/23 21:24	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	11/21/23 16:10	11/28/23 21:24	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	11/21/23 16:10	11/28/23 21:24	7440-09-7	
Silica	**14600**	ug/L	450		1	11/21/23 16:10	11/28/23 21:24	7631-86-9	N2
Sodium	**4230**	ug/L	1000	54.8	1	11/21/23 16:10	11/28/23 21:24	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	ND	ug/L	100	6.2	1	11/26/23 17:41	11/27/23 16:16	7440-42-8	
Iron, Dissolved	**101**	ug/L	100	30.0	1	11/26/23 17:41	11/27/23 16:16	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/26/23 17:41	11/27/23 16:16	7439-93-2	
Magnesium, Dissolved	**42500**	ug/L	1000	33.6	1	11/26/23 17:41	11/27/23 16:16	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	11/26/23 17:41	11/27/23 16:16	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	97.8	1	11/26/23 17:41	11/27/23 16:16	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**90.1**	ug/L	10.0	2.3	1	11/21/23 07:34	11/22/23 22:14	7429-90-5	
Arsenic	ND	ug/L	1.0	0.075	1	11/21/23 07:34	11/22/23 22:14	7440-38-2	
Barium	**60.8**	ug/L	1.0	0.077	1	11/21/23 07:34	11/22/23 06:03	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/21/23 07:34	11/22/23 22:14	7440-48-4	
Manganese	**116**	ug/L	1.0	0.17	1	11/21/23 07:34	11/22/23 22:14	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	11/21/23 07:34	11/22/23 22:14	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/20/23 02:07	11/21/23 11:36	7429-90-5	
Manganese, Dissolved	**77.1**	ug/L	1.0	0.18	1	11/20/23 02:07	11/21/23 11:36	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359566

Sample: MW-45B **Lab ID: 50359566001** Collected: 11/13/23 12:45 Received: 11/13/23 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**340**	mg/L	10.0	10.0	1		11/17/23 02:55		
Alkalinity,Bicarbonate (CaCO3)	**340**	mg/L	10.0	10.0	1		11/17/23 02:55		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/17/23 02:55		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**501**	mg/L	10.0	10.0	1		11/17/23 11:04		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		11/29/23 14:14		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/14/23 16:28	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/16/23 14:37	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**1.6**	mg/L	0.10	0.011	1		11/14/23 00:50	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/14/23 00:50	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/28/23 12:30	11/28/23 15:49		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.24	1		11/22/23 12:58	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.5**	mg/L	1.0	0.24	1		11/22/23 03:03		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359566

QC Batch: 764388
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359566001

METHOD BLANK: 3503759 Matrix: Water
Associated Lab Samples: 50359566001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	11/29/23 07:34	
Chloride	mg/L	ND	0.25	0.067	11/29/23 07:34	
Fluoride	mg/L	ND	0.10	0.017	11/29/23 07:34	
Sulfate	mg/L	ND	0.25	0.19	11/29/23 07:34	

LABORATORY CONTROL SAMPLE: 3503760

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.95	95	80-120	
Chloride	mg/L	2.5	2.5	99	80-120	
Fluoride	mg/L	1	0.99	99	80-120	
Sulfate	mg/L	5	5.1	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503761 3503762

Parameter	Units	50359566001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	ND	1	1	0.98	0.98	94	94	80-120	0	15	
Chloride	mg/L	5.5	2.5	2.5	7.7	7.7	88	87	80-120	0	15	
Fluoride	mg/L	0.11	1	1	1.1	1.1	102	102	80-120	0	15	
Sulfate	mg/L	123	50	50	172	172	97	98	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359566

QC Batch: 764138
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359566001

METHOD BLANK: 3502696 Matrix: Water
Associated Lab Samples: 50359566001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	11/28/23 21:21	
Cadmium	ug/L	ND	2.0	0.60	11/28/23 21:21	
Calcium	ug/L	ND	1000	67.7	11/28/23 21:21	
Iron	ug/L	ND	100	30.0	11/28/23 21:21	
Lead	ug/L	ND	10.0	2.5	11/28/23 21:21	
Lithium	ug/L	ND	20.0	6.8	11/28/23 21:21	
Magnesium	ug/L	ND	1000	33.6	11/28/23 21:21	
Molybdenum	ug/L	ND	10.0	0.78	11/28/23 21:21	
Potassium	ug/L	ND	1000	97.8	11/28/23 21:21	
Silica	ug/L	ND	450		11/28/23 21:21	N2
Sodium	ug/L	ND	1000	54.8	11/28/23 21:21	

LABORATORY CONTROL SAMPLE: 3502697

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	966	97	80-120	
Cadmium	ug/L	1000	973	97	80-120	
Calcium	ug/L	10000	9910	99	80-120	
Iron	ug/L	10000	9990	100	80-120	
Lead	ug/L	1000	916	92	80-120	
Lithium	ug/L	1000	1020	102	80-120	
Magnesium	ug/L	10000	9600	96	80-120	
Molybdenum	ug/L	1000	1020	102	80-120	
Potassium	ug/L	10000	9860	99	80-120	
Silica	ug/L	10700	10500	98	80-120	N2
Sodium	ug/L	10000	9660	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3502698 3502699

Parameter	Units	50359566001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	ND	1000	1000	1070	1110	99	103	75-125	3	20	
Cadmium	ug/L	ND	1000	1000	982	1010	98	101	75-125	3	20	
Calcium	ug/L	121000	10000	10000	130000	135000	98	146	75-125	4	20	P6
Iron	ug/L	272	10000	10000	10200	10500	99	102	75-125	3	20	
Lead	ug/L	ND	1000	1000	896	922	90	92	75-125	3	20	
Lithium	ug/L	ND	1000	1000	1040	1070	103	107	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359566

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3502698 3502699

Parameter	Units	50359566001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Magnesium	ug/L	40900	10000	10000	50500	52500	97	116	75-125	4	20	
Molybdenum	ug/L	ND	1000	1000	1020	1050	102	105	75-125	3	20	
Potassium	ug/L	ND	10000	10000	10300	10600	100	103	75-125	3	20	
Silica	ug/L	14600	10700	10700	25500	26500	101	111	75-125	4	20	N2
Sodium	ug/L	4230	10000	10000	14000	14400	98	102	75-125	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3502700 3502701

Parameter	Units	50359634007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	113	1000	1000	1090	1070	98	96	75-125	2	20	
Cadmium	ug/L	ND	1000	1000	989	959	99	96	75-125	3	20	
Calcium	ug/L	69300	10000	10000	80200	78700	109	94	75-125	2	20	
Iron	ug/L	3790	10000	10000	14000	13600	102	98	75-125	3	20	
Lead	ug/L	ND	1000	1000	905	880	90	88	75-125	3	20	
Lithium	ug/L	ND	1000	1000	1030	997	102	99	75-125	3	20	
Magnesium	ug/L	39300	10000	10000	49600	48800	103	95	75-125	2	20	
Molybdenum	ug/L	33.0	1000	1000	1060	1030	103	100	75-125	3	20	
Potassium	ug/L	1680	10000	10000	11700	11300	100	96	75-125	3	20	
Silica	ug/L	14900	10700	10700	24900	25100	93	95	75-125	1	20	N2
Sodium	ug/L	43000	10000	10000	53400	52500	103	94	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359566

QC Batch: 764740
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359566001

METHOD BLANK: 3505233 Matrix: Water
Associated Lab Samples: 50359566001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	11/27/23 16:00	
Iron, Dissolved	ug/L	ND	100	30.0	11/27/23 16:00	
Lithium, Dissolved	ug/L	ND	20.0	6.8	11/27/23 16:00	
Magnesium, Dissolved	ug/L	ND	1000	33.6	11/27/23 16:00	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	11/27/23 16:00	
Potassium, Dissolved	ug/L	ND	1000	97.8	11/27/23 16:00	

LABORATORY CONTROL SAMPLE: 3505234

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	926	93	80-120	
Iron, Dissolved	ug/L	10000	10200	102	80-120	
Lithium, Dissolved	ug/L	1000	993	99	80-120	
Magnesium, Dissolved	ug/L	10000	9590	96	80-120	
Molybdenum, Dissolved	ug/L	1000	969	97	80-120	
Potassium, Dissolved	ug/L	10000	9500	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3505235 3505236

Parameter	Units	50359566001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	ND	1000	1000	1060	1050	99	98	75-125	1	20	
Iron, Dissolved	ug/L	101	10000	10000	10600	10500	105	104	75-125	1	20	
Lithium, Dissolved	ug/L	ND	1000	1000	1040	1030	103	103	75-125	0	20	
Magnesium, Dissolved	ug/L	42500	10000	10000	51600	50900	91	85	75-125	1	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1010	1000	101	100	75-125	1	20	
Potassium, Dissolved	ug/L	ND	10000	10000	10200	10100	101	100	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359566

QC Batch: 763971
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359566001

METHOD BLANK: 3502115 Matrix: Water
Associated Lab Samples: 50359566001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	2.3	11/22/23 04:07	
Arsenic	ug/L	ND	1.0	0.075	11/22/23 04:07	
Barium	ug/L	ND	1.0	0.077	11/22/23 04:07	
Cobalt	ug/L	ND	1.0	0.046	11/22/23 04:07	
Manganese	ug/L	ND	1.0	0.17	11/22/23 04:07	
Selenium	ug/L	ND	1.0	0.20	11/22/23 04:07	

LABORATORY CONTROL SAMPLE: 3502116

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	392	98	80-120	
Arsenic	ug/L	40	38.8	97	80-120	
Barium	ug/L	40	37.6	94	80-120	
Cobalt	ug/L	40	40.5	101	80-120	
Manganese	ug/L	40	40.4	101	80-120	
Selenium	ug/L	40	40.7	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3502117 3502118

Parameter	Units	50359566001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	90.1	400	400	496	482	101	98	75-125	3	20	
Arsenic	ug/L	ND	40	40	38.8	38.9	96	96	75-125	0	20	
Barium	ug/L	60.8	40	40	104	104	107	109	75-125	1	20	
Cobalt	ug/L	ND	40	40	39.1	38.9	97	96	75-125	0	20	
Manganese	ug/L	116	40	40	157	156	102	100	75-125	0	20	
Selenium	ug/L	ND	40	40	40.1	39.4	99	97	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359566

QC Batch: 763783
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50359566001

METHOD BLANK: 3501276 Matrix: Water
Associated Lab Samples: 50359566001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.8	11/21/23 09:32	
Manganese, Dissolved	ug/L	ND	1.0	0.18	11/21/23 09:32	

LABORATORY CONTROL SAMPLE: 3501277

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	399	100	80-120	
Manganese, Dissolved	ug/L	40	41.6	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3501278 3501279

Parameter	Units	50359566001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	379	380	94	95	75-125	0	20	
Manganese, Dissolved	ug/L	77.1	40	40	115	116	94	97	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359566

QC Batch: 763517
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359566001

METHOD BLANK: 3499918 Matrix: Water
Associated Lab Samples: 50359566001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/17/23 02:55	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/17/23 02:55	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/17/23 02:55	

LABORATORY CONTROL SAMPLE: 3499919

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.4	99	90-110	

SAMPLE DUPLICATE: 3499920

Parameter	Units	50359439006 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	84.2	86.0	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	84.2	86.0	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	<10.0	ND		20	

SAMPLE DUPLICATE: 3499921

Parameter	Units	50359566001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	340	345	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	340	345	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359566

QC Batch: 763567
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359566001

METHOD BLANK: 3500099 Matrix: Water
Associated Lab Samples: 50359566001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/17/23 11:01	

LABORATORY CONTROL SAMPLE: 3500100

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	273	91	80-120	

SAMPLE DUPLICATE: 3500101

Parameter	Units	50359566001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	501	520	4	10	

SAMPLE DUPLICATE: 3500102

Parameter	Units	50359596002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1440	1490	4	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359566

QC Batch: 765348
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50359566001

SAMPLE DUPLICATE: 3507380

Parameter	Units	50359566001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.4	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359566

QC Batch: 762917
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359566001

METHOD BLANK: 3496650 Matrix: Water
Associated Lab Samples: 50359566001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/14/23 16:28	

LABORATORY CONTROL SAMPLE: 3496651

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.54	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3496652 3496653

Parameter	Units	50359566001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.47	0.50	94	100	90-110	6	20	

MATRIX SPIKE SAMPLE: 3496654

Parameter	Units	50359596005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.47	92	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359566

QC Batch: 763334
QC Batch Method: HACH 8146
Analysis Method: HACH 8146
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359566001

METHOD BLANK: 3498763 Matrix: Water
Associated Lab Samples: 50359566001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/16/23 14:33	H3,N2

LABORATORY CONTROL SAMPLE: 3498764

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	0.98	98	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498765 3498766

Parameter	Units	50359566001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.1	105	104	90-110	1	20	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498767 3498768

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.0	1.1	102	105	90-110	3	20	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359566

QC Batch: 762688
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359566001

METHOD BLANK: 3495871 Matrix: Water
Associated Lab Samples: 50359566001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/14/23 00:26	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/14/23 00:26	

LABORATORY CONTROL SAMPLE: 3495872

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	104	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	104	90-110	

MATRIX SPIKE SAMPLE: 3495873

Parameter	Units	50359596002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	0.95	95	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	100	90-110	

MATRIX SPIKE SAMPLE: 3495874

Parameter	Units	50359566001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1.6	1	2.7	104	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.1	105	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359566

QC Batch: 765002
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359566001

METHOD BLANK: 3505952 Matrix: Water
Associated Lab Samples: 50359566001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	11/28/23 15:40	

LABORATORY CONTROL SAMPLE: 3505953

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3505954 3505955

Parameter	Units	50359566001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.5	1.6				5		

MATRIX SPIKE SAMPLE: 3505956

Parameter	Units	50359583002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	5.1		6.7			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359566

QC Batch: 764240
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359566001

METHOD BLANK: 3503025 Matrix: Water
Associated Lab Samples: 50359566001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	11/22/23 08:32	

LABORATORY CONTROL SAMPLE: 3503026

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.5	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503027 3503028

Parameter	Units	50359566001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	ND	10	10	10.1	9.7	96	93	80-120	3	20	

MATRIX SPIKE SAMPLE: 3503029

Parameter	Units	50359594001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	17.9	10	38.3	204	80-120	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359566

QC Batch: 764236
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359566001

METHOD BLANK: 3503010 Matrix: Water
Associated Lab Samples: 50359566001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	11/22/23 02:43	

LABORATORY CONTROL SAMPLE: 3503011

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.6	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503012 3503013

Parameter	Units	50359566001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.5	10	10	10.6	10.8	91	93	80-120	2	20	

MATRIX SPIKE SAMPLE: 3503014

Parameter	Units	50359596001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	1.9	10	11.2	93	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359566

Sample: MW-45B **Lab ID: 50359566001** Collected: 11/13/23 12:45 Received: 11/13/23 15:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0687 ± 0.404 (0.825) C:NA T:89%**	pCi/L	12/08/23 12:10	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.240 ± 0.258 (0.531) C:88% T:82%**	pCi/L	12/04/23 12:08	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.309 ± 0.662 (1.36)**	pCi/L	12/08/23 14:03	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359566

Sample: MW-45B MS **Lab ID: 50359566002** Collected: 11/13/23 12:45 Received: 11/13/23 15:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**116.06 %REC ± NA (NA) C:NA T:NA**	pCi/L	12/08/23 12:10	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**109.20% REC ± NA (NA) C:NA T:NA**	pCi/L	12/04/23 12:08	15262-20-1	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359566

Sample: MW-45B MSD **Lab ID: 50359566003** Collected: 11/13/23 12:45 Received: 11/13/23 15:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**123.78 %REC 6.44RPD ± NA (NA) C:NA T:NA**	pCi/L	12/08/23 12:10	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**87.84% REC 21.67 RPD ± NA (NA) C:NA T:NA**	pCi/L	12/04/23 15:27	15262-20-1	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359566

QC Batch: 630822
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359566001, 50359566002, 50359566003

METHOD BLANK: 3075674 Matrix: Water
Associated Lab Samples: 50359566001, 50359566002, 50359566003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.127 ± 0.353 (0.685) C:NA T:93%	pCi/L	12/08/23 11:58	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359566

QC Batch: 630823
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359566001, 50359566002, 50359566003

METHOD BLANK: 3075675
Matrix: Water
Associated Lab Samples: 50359566001, 50359566002, 50359566003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.692 ± 0.315 (0.509) C:89% T:91%	pCi/L	12/04/23 12:07	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359566

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359566

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359566001	**MW-45B**	EPA 9056	764388		
50359566001	**MW-45B**	EPA 3010	764138	EPA 6010	765193
50359566001	**MW-45B**	EPA 3010	764740	EPA 6010	764885
50359566001	**MW-45B**	EPA 200.2	763971	EPA 6020	764263
50359566001	**MW-45B**	EPA 200.2	763783	EPA 6020	764101
50359566001	**MW-45B**	EPA 903.1	630822		
50359566002	**MW-45B MS**	EPA 903.1	630822		
50359566003	**MW-45B MSD**	EPA 903.1	630822		
50359566001	**MW-45B**	EPA 904.0	630823		
50359566002	**MW-45B MS**	EPA 904.0	630823		
50359566003	**MW-45B MSD**	EPA 904.0	630823		
50359566001	**MW-45B**	Total Radium Calculation	634870		
50359566001	**MW-45B**	SM 2320B	763517		
50359566001	**MW-45B**	SM 2540C	763567		
50359566001	**MW-45B**	SM 4500-H+B	765348		
50359566001	**MW-45B**	SM 4500-S2-D	762917		
50359566001	**MW-45B**	HACH 8146	763334		
50359566001	**MW-45B**	EPA 353.2	762688		
50359566001	**MW-45B**	EPA 365.1	765002	EPA 365.1	765298
50359566001	**MW-45B**	SM 5310C	764240		
50359566001	**MW-45B**	SM 5310C	764236		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request Doc

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must b

WO# : 50359566

50359566

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam	
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis	Regulatory Agency
	Indianapolis, IN 46256			Address:		
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:		
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P4R4 Nov 2023	Pace Project Manager:	Will Statz	State / Location
Requested Due Date:		Project #:		Pace Profile #:	10498/53	IN

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analyses Test: TDS/ NO2, NO3 Wet	(Br, Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity*, Ferrous Iron, pH	TOC by 5310C	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum		Residual Chlorine (Y/N)	
	MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																	Y				Y								
1	MW-45B	WT	G	11/13	11:40	11/13	1245		11	3	3	4		1				✓	✓	✓	✓	✓	✓	✓	✓	✓				MW1
2	MS-6	WT	G	11/13	11:40	11/13	1245		4	3	3	4		1				✓	✓	✓	✓	✓	✓	✓	✓	✓				MW2
3	MSD-6	WT	G	11/13	11:40	11/13	1245		4	3	3	4		1				✓	✓	✓	✓	✓	✓	✓	✓	✓				MW3
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
* Metals: 6010 (B, Cd, Fe, Pb, Mo, Ca, Mg, Na, K, Li, sila) (11)	Mohammed Bazlamit	11/13	1530		11-13-23	15:30	0.3	y	N	y
6020 (Al, Mn, Co, As, Se, Ba) (6)							0.6			
** Dissolved FF 6010 (B, Fe, Mo, Mg, K, Li) (6) FF 6020 (Al, Mn) (2)										
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Mohammed Bazlamit					
SIGNATURE of SAMPLER:		DATE Signed: 11/13/2023				

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: BC 11-13-23 15:40

1. Courier: ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. Custody Seal on Cooler/Box Present: ☐ Yes ☑ No

(If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**

3. Thermometer: 1 2 3 4 5 6 7 8 A B C D E F G H

4. Cooler Temperature(s): 0.3/0.3 | 0.6/0.6 | | |

(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. Ice Type: ☑ Wet ☐ Blue ☐ None

7. If temp. is over 6°C or under 0°C, was the PM notified?: ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? **Analysis:** NO_3	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 16:30			Present	Absent	N/A ✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			
Custody Signatures Present?	✓		Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Containers Intact?:	✓		Headspace Wisconsin Sulfide?			✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Extra labels on Terracore Vials? (soils only)			Trip Blank Present?		✓	
			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC									OTHER								
			MeOH (only)																											Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
			SBS																											Red	Yellow	Green	Black
			DI																													
COC Line Item	WGFU	WGKU BG1U	R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
1												3	3			6	3	6	3	3	3		3					WT	✓	✓		✓
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 08, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 14, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50359612001	**MW-40A**	Water	11/13/23 11:00	11/14/23 10:00
50359612002	**MW-40I**	Water	11/13/23 12:15	11/14/23 10:00
50359612003	**Dup-9**	Water	11/13/23 08:00	11/14/23 10:00
50359612004	**MW-40B**	Water	11/13/23 13:10	11/14/23 10:00
50359612005	**MW-39A**	Water	11/13/23 16:00	11/14/23 10:00

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50359612001	**MW-40A**	EPA 9056	ADM	4	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	ELK	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	DMT	2	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JJY	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359612002	**MW-40I**	EPA 9056	ADM	4	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	ELK	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	DMT	2	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JJY	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359612003	**Dup-9**	EPA 9056	ADM	4	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	ELK	6	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	CAW	6	PASI-I
		EPA 6020	DMT	2	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JJY	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359612004	**MW-40B**	EPA 9056	ADM	4	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	ELK	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	DMT	2	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JJY	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359612005	**MW-39A**	EPA 9056	ADM	4	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	DMT	2	PASI-I
		EPA 903.1	CLM	1	PASI-PA

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JJY	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359612001	**MW-40A**					
EPA 9056	Bromide	1.2	mg/L	0.050	11/30/23 19:41	
EPA 9056	Chloride	133	mg/L	2.5	11/30/23 19:57	
EPA 9056	Sulfate	1460	mg/L	25.0	11/30/23 20:14	
EPA 6010	Boron	23800	ug/L	100	11/30/23 10:15	
EPA 6010	Calcium	646000	ug/L	5000	11/30/23 11:07	
EPA 6010	Iron	11600	ug/L	100	11/30/23 10:15	
EPA 6010	Magnesium	38200	ug/L	1000	11/30/23 10:15	
EPA 6010	Molybdenum	652	ug/L	10.0	11/30/23 10:15	
EPA 6010	Potassium	14300	ug/L	1000	11/30/23 10:15	
EPA 6010	Silica	14100	ug/L	450	11/30/23 10:15	N2
EPA 6010	Sodium	51700	ug/L	1000	11/30/23 10:15	
EPA 6010	Boron, Dissolved	23400	ug/L	100	11/27/23 16:38	
EPA 6010	Iron, Dissolved	12100	ug/L	100	11/27/23 16:38	
EPA 6010	Magnesium, Dissolved	39500	ug/L	1000	11/27/23 16:38	
EPA 6010	Molybdenum, Dissolved	624	ug/L	10.0	11/27/23 16:38	
EPA 6010	Potassium, Dissolved	13800	ug/L	1000	11/27/23 16:38	
EPA 6020	Aluminum	14.9	ug/L	10.0	11/28/23 00:08	
EPA 6020	Barium	28.5	ug/L	1.0	11/23/23 02:26	
EPA 6020	Manganese	2160	ug/L	20.0	11/28/23 00:01	
EPA 6020	Manganese, Dissolved	2160	ug/L	20.0	11/27/23 09:47	
EPA 903.1	Radium-226	0.358 ± 0.657 (1.17) C:NA T:89%	pCi/L		12/08/23 12:24	
EPA 904.0	Radium-228	0.815 ± 0.389 (0.647) C:84% T:81%	pCi/L		12/04/23 15:27	
Total Radium Calculation	Total Radium	1.17 ± 1.05 (1.82)	pCi/L		12/08/23 14:03	
SM 2320B	Alkalinity, Total as CaCO3	94.8	mg/L	10.0	11/17/23 21:10	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	94.8	mg/L	10.0	11/17/23 21:10	
SM 2540C	Total Dissolved Solids	2660	mg/L	40.0	11/17/23 12:19	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	11/30/23 11:49	H3
HACH 8146	Iron, Ferrous	6.5	mg/L	1.0	11/16/23 14:35	H3,N2
EPA 365.1	Phosphate as P04	0.21	mg/L	0.15	11/30/23 15:23	
SM 5310C	Total Organic Carbon	2.1	mg/L	1.0	11/30/23 03:07	
SM 5310C	Dissolved Organic Carbon	4.1	mg/L	1.0	11/22/23 05:34	
50359612002	**MW-40I**					
EPA 9056	Bromide	0.66	mg/L	0.050	11/30/23 20:31	
EPA 9056	Chloride	103	mg/L	2.5	11/30/23 20:49	
EPA 9056	Sulfate	1370	mg/L	25.0	11/30/23 21:08	
EPA 6010	Boron	18100	ug/L	100	11/30/23 10:16	
EPA 6010	Calcium	569000	ug/L	5000	11/30/23 11:08	
EPA 6010	Iron	10600	ug/L	100	11/30/23 10:16	
EPA 6010	Magnesium	69100	ug/L	1000	11/30/23 10:16	
EPA 6010	Molybdenum	160	ug/L	10.0	11/30/23 10:16	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359612002	**MW-40I**					
EPA 6010	Potassium	13500	ug/L	1000	11/30/23 10:16	
EPA 6010	Silica	13100	ug/L	450	11/30/23 10:16	N2
EPA 6010	Sodium	51700	ug/L	1000	11/30/23 10:16	
EPA 6010	Boron, Dissolved	17600	ug/L	100	11/27/23 16:40	
EPA 6010	Iron, Dissolved	11000	ug/L	100	11/27/23 16:40	
EPA 6010	Magnesium, Dissolved	71200	ug/L	1000	11/27/23 16:40	
EPA 6010	Molybdenum, Dissolved	155	ug/L	10.0	11/27/23 16:40	
EPA 6010	Potassium, Dissolved	12900	ug/L	1000	11/27/23 16:40	
EPA 6020	Arsenic	1.0	ug/L	1.0	11/23/23 02:29	
EPA 6020	Barium	24.8	ug/L	1.0	11/23/23 02:29	
EPA 6020	Cobalt	1.1	ug/L	1.0	11/23/23 02:29	
EPA 6020	Manganese	2020	ug/L	20.0	11/28/23 00:04	
EPA 6020	Manganese, Dissolved	2060	ug/L	20.0	11/27/23 09:50	
EPA 903.1	Radium-226	0.200 ± 0.963 (1.82) C:NA T:90%	pCi/L		12/08/23 12:24	
EPA 904.0	Radium-228	0.763 ± 0.395 (0.692) C:86% T:84%	pCi/L		12/04/23 15:27	
Total Radium Calculation	Total Radium	0.963 ± 1.36 (2.51)	pCi/L		12/08/23 14:03	
SM 2320B	Alkalinity, Total as CaCO3	154	mg/L	10.0	11/17/23 21:10	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	154	mg/L	10.0	11/17/23 21:10	
SM 2540C	Total Dissolved Solids	2400	mg/L	40.0	11/17/23 12:19	
SM 4500-H+B	pH at 25 Degrees C	7.0	Std. Units	0.10	11/30/23 11:49	H3
HACH 8146	Iron, Ferrous	7.8	mg/L	1.0	11/16/23 14:36	H3,N2
EPA 365.1	Phosphate as P04	0.26	mg/L	0.15	11/30/23 09:13	
SM 5310C	Total Organic Carbon	1.5	mg/L	1.0	11/30/23 03:26	
SM 5310C	Dissolved Organic Carbon	2.1	mg/L	1.0	11/22/23 05:46	
50359612003	**Dup-9**					
EPA 9056	Bromide	0.68	mg/L	0.050	11/30/23 21:27	
EPA 9056	Chloride	105	mg/L	2.5	11/30/23 21:47	
EPA 9056	Sulfate	1390	mg/L	25.0	11/30/23 22:06	
EPA 6010	Boron	17800	ug/L	100	11/30/23 10:17	
EPA 6010	Calcium	567000	ug/L	5000	11/30/23 11:09	
EPA 6010	Iron	10500	ug/L	100	11/30/23 10:17	
EPA 6010	Magnesium	68400	ug/L	1000	11/30/23 10:17	
EPA 6010	Molybdenum	159	ug/L	10.0	11/30/23 10:17	
EPA 6010	Potassium	13300	ug/L	1000	11/30/23 10:17	
EPA 6010	Silica	12900	ug/L	450	11/30/23 10:17	N2
EPA 6010	Sodium	51300	ug/L	1000	11/30/23 10:17	
EPA 6010	Boron, Dissolved	17300	ug/L	100	11/27/23 16:41	
EPA 6010	Iron, Dissolved	10900	ug/L	100	11/27/23 16:41	
EPA 6010	Magnesium, Dissolved	70600	ug/L	1000	11/27/23 16:41	
EPA 6010	Molybdenum, Dissolved	151	ug/L	10.0	11/27/23 16:41	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359612003	**Dup-9**					
EPA 6010	Potassium, Dissolved	12800	ug/L	1000	11/27/23 16:41	
EPA 6020	Arsenic	1.1	ug/L	1.0	11/28/23 00:28	
EPA 6020	Barium	25.2	ug/L	1.0	11/23/23 02:39	
EPA 6020	Cobalt	1.2	ug/L	1.0	11/28/23 09:57	
EPA 6020	Manganese	2020	ug/L	20.0	11/28/23 10:04	
EPA 6020	Manganese, Dissolved	2020	ug/L	20.0	11/27/23 09:53	
EPA 903.1	Radium-226	-0.170 ± 0.744 (1.54) C:NA T:93%	pCi/L		12/08/23 12:24	
EPA 904.0	Radium-228	1.16 ± 0.461 (0.694) C:77% T:86%	pCi/L		12/04/23 15:27	
Total Radium Calculation	Total Radium	1.16 ± 1.21 (2.23)	pCi/L		12/08/23 14:03	
SM 2320B	Alkalinity, Total as CaCO3	158	mg/L	10.0	11/18/23 00:50	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	158	mg/L	10.0	11/18/23 00:50	
SM 2540C	Total Dissolved Solids	2300	mg/L	40.0	11/17/23 12:20	
SM 4500-H+B	pH at 25 Degrees C	7.0	Std. Units	0.10	11/30/23 11:51	H3
HACH 8146	Iron, Ferrous	6.9	mg/L	1.0	11/16/23 14:35	H3,N2
EPA 365.1	Phosphate as P04	0.24	mg/L	0.15	11/30/23 09:14	
SM 5310C	Total Organic Carbon	1.6	mg/L	1.0	11/30/23 04:31	
SM 5310C	Dissolved Organic Carbon	2.4	mg/L	1.0	11/22/23 05:56	
50359612004	**MW-40B**					
EPA 9056	Bromide	0.12	mg/L	0.050	11/30/23 23:04	
EPA 9056	Chloride	10.8	mg/L	0.25	11/30/23 23:04	
EPA 9056	Fluoride	0.12	mg/L	0.10	11/30/23 23:04	
EPA 9056	Sulfate	68.7	mg/L	2.5	12/01/23 18:20	
EPA 6010	Boron	1260	ug/L	100	11/30/23 10:19	
EPA 6010	Calcium	110000	ug/L	1000	11/30/23 10:19	
EPA 6010	Magnesium	27200	ug/L	1000	11/30/23 10:19	
EPA 6010	Silica	12500	ug/L	450	11/30/23 10:19	N2
EPA 6010	Sodium	14100	ug/L	1000	11/30/23 10:19	
EPA 6010	Boron, Dissolved	1190	ug/L	100	11/27/23 16:42	
EPA 6010	Magnesium, Dissolved	27000	ug/L	1000	11/27/23 16:42	
EPA 6020	Barium	31.8	ug/L	1.0	11/23/23 02:43	
EPA 6020	Manganese	53.0	ug/L	1.0	11/28/23 09:53	
EPA 6020	Selenium	1.9	ug/L	1.0	11/28/23 00:25	
EPA 6020	Manganese, Dissolved	51.6	ug/L	1.0	11/22/23 08:30	
EPA 903.1	Radium-226	-0.281 ± 0.488 (1.23) C:NA T:88%	pCi/L		12/08/23 12:24	
EPA 904.0	Radium-228	0.328 ± 0.369 (0.766) C:79% T:80%	pCi/L		12/04/23 15:27	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359612004	**MW-40B**					
Total Radium Calculation	Total Radium	0.328 ± 0.857 (2.00)	pCi/L		12/08/23 14:03	
SM 2320B	Alkalinity, Total as CaCO3	274	mg/L	10.0	11/18/23 00:50	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	274	mg/L	10.0	11/18/23 00:50	
SM 2540C	Total Dissolved Solids	410	mg/L	10.0	11/17/23 12:20	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	11/30/23 11:51	H3
EPA 353.2	Nitrogen, Nitrate	7.2	mg/L	0.50	11/15/23 04:01	
SM 5310C	Dissolved Organic Carbon	1.9	mg/L	1.0	11/22/23 06:07	
50359612005	**MW-39A**					
EPA 9056	Bromide	0.73	mg/L	0.050	11/30/23 23:42	
EPA 9056	Chloride	117	mg/L	25.0	12/01/23 00:01	
EPA 9056	Sulfate	1500	mg/L	25.0	12/01/23 00:01	
EPA 6010	Boron	23500	ug/L	100	11/30/23 10:20	
EPA 6010	Calcium	629000	ug/L	5000	11/30/23 11:11	
EPA 6010	Iron	10400	ug/L	100	11/30/23 10:20	
EPA 6010	Magnesium	53000	ug/L	1000	11/30/23 10:20	
EPA 6010	Molybdenum	363	ug/L	10.0	11/30/23 10:20	
EPA 6010	Potassium	11500	ug/L	1000	11/30/23 10:20	
EPA 6010	Silica	14200	ug/L	450	11/30/23 10:20	N2
EPA 6010	Sodium	53200	ug/L	1000	11/30/23 10:20	
EPA 6010	Boron, Dissolved	23100	ug/L	100	11/29/23 01:55	
EPA 6010	Iron, Dissolved	10400	ug/L	100	11/29/23 01:55	
EPA 6010	Magnesium, Dissolved	53000	ug/L	1000	11/29/23 01:55	
EPA 6010	Molybdenum, Dissolved	355	ug/L	10.0	11/29/23 01:55	
EPA 6010	Potassium, Dissolved	11600	ug/L	1000	11/29/23 01:55	
EPA 6020	Aluminum	12.8	ug/L	10.0	11/28/23 10:07	
EPA 6020	Barium	26.6	ug/L	1.0	11/23/23 02:46	
EPA 6020	Manganese	2070	ug/L	20.0	11/28/23 10:16	
EPA 6020	Manganese, Dissolved	2210	ug/L	20.0	11/27/23 09:57	
EPA 903.1	Radium-226	0.699 ± 0.669 (1.02) C:NA T:94%	pCi/L		12/08/23 12:24	
EPA 904.0	Radium-228	1.18 ± 0.468 (0.706) C:86% T:79%	pCi/L		12/04/23 15:27	
Total Radium Calculation	Total Radium	1.88 ± 1.14 (1.73)	pCi/L		12/08/23 14:03	
SM 2320B	Alkalinity, Total as CaCO3	134	mg/L	10.0	11/18/23 00:50	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	134	mg/L	10.0	11/18/23 00:50	
SM 2540C	Total Dissolved Solids	2580	mg/L	40.0	11/17/23 12:20	
SM 4500-H+B	pH at 25 Degrees C	7.0	Std. Units	0.10	11/30/23 11:52	H3
HACH 8146	Iron, Ferrous	8.4	mg/L	1.0	11/16/23 14:39	H3,N2
EPA 365.1	Phosphate as P04	0.32	mg/L	0.15	11/30/23 09:16	
SM 5310C	Total Organic Carbon	1.8	mg/L	1.0	11/30/23 05:17	
SM 5310C	Dissolved Organic Carbon	4.0	mg/L	1.0	11/22/23 06:18	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

Sample: MW-40A **Lab ID: 50359612001** Collected: 11/13/23 11:00 Received: 11/14/23 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**1.2**	mg/L	0.050	0.0090	1		11/30/23 19:41	24959-67-9	
Chloride	**133**	mg/L	2.5	0.67	10		11/30/23 19:57	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/30/23 19:41	16984-48-8	
Sulfate	**1460**	mg/L	25.0	19.0	100		11/30/23 20:14	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**23800**	ug/L	100	6.2	1	11/25/23 21:48	11/30/23 10:15	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/25/23 21:48	11/30/23 10:15	7440-43-9	
Calcium	**646000**	ug/L	5000	338	5	11/25/23 21:48	11/30/23 11:07	7440-70-2	
Iron	**11600**	ug/L	100	30.0	1	11/25/23 21:48	11/30/23 10:15	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	11/25/23 21:48	11/30/23 10:15	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/25/23 21:48	11/30/23 10:15	7439-93-2	
Magnesium	**38200**	ug/L	1000	33.6	1	11/25/23 21:48	11/30/23 10:15	7439-95-4	
Molybdenum	**652**	ug/L	10.0	0.78	1	11/25/23 21:48	11/30/23 10:15	7439-98-7	
Potassium	**14300**	ug/L	1000	97.8	1	11/25/23 21:48	11/30/23 10:15	7440-09-7	
Silica	**14100**	ug/L	450		1	11/25/23 21:48	11/30/23 10:15	7631-86-9	N2
Sodium	**51700**	ug/L	1000	54.8	1	11/25/23 21:48	11/30/23 10:15	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**23400**	ug/L	100	6.2	1	11/26/23 17:41	11/27/23 16:38	7440-42-8	
Iron, Dissolved	**12100**	ug/L	100	30.0	1	11/26/23 17:41	11/27/23 16:38	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/26/23 17:41	11/27/23 16:38	7439-93-2	
Magnesium, Dissolved	**39500**	ug/L	1000	33.6	1	11/26/23 17:41	11/27/23 16:38	7439-95-4	
Molybdenum, Dissolved	**624**	ug/L	10.0	0.78	1	11/26/23 17:41	11/27/23 16:38	7439-98-7	
Potassium, Dissolved	**13800**	ug/L	1000	97.8	1	11/26/23 17:41	11/27/23 16:38	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**14.9**	ug/L	10.0	2.3	1	11/22/23 07:28	11/28/23 00:08	7429-90-5	
Arsenic	ND	ug/L	1.0	0.075	1	11/22/23 07:28	11/23/23 02:26	7440-38-2	
Barium	**28.5**	ug/L	1.0	0.077	1	11/22/23 07:28	11/23/23 02:26	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/22/23 07:28	11/23/23 02:26	7440-48-4	
Manganese	**2160**	ug/L	20.0	3.4	20	11/22/23 07:28	11/28/23 00:01	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	11/22/23 07:28	11/23/23 02:26	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.0	1	11/21/23 15:15	11/22/23 08:19	7429-90-5	
Manganese, Dissolved	**2160**	ug/L	20.0	3.2	20	11/21/23 15:15	11/27/23 09:47	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

Sample: MW-40A **Lab ID: 50359612001** Collected: 11/13/23 11:00 Received: 11/14/23 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**94.8**	mg/L	10.0	10.0	1		11/17/23 21:10		
Alkalinity,Bicarbonate (CaCO3)	**94.8**	mg/L	10.0	10.0	1		11/17/23 21:10		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/17/23 21:10		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2660**	mg/L	40.0	40.0	1		11/17/23 12:19		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		11/30/23 11:49		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/16/23 11:05	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**6.5**	mg/L	1.0	0.18	5		11/16/23 14:35	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/15/23 02:32	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/15/23 02:32	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.21**	mg/L	0.15	0.15	1	11/29/23 14:30	11/30/23 15:23		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**2.1**	mg/L	1.0	0.24	1		11/30/23 03:07	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**4.1**	mg/L	1.0	0.24	1		11/22/23 05:34		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

Sample: MW-40I **Lab ID: 50359612002** Collected: 11/13/23 12:15 Received: 11/14/23 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.66**	mg/L	0.050	0.0090	1		11/30/23 20:31	24959-67-9	
Chloride	**103**	mg/L	2.5	0.67	10		11/30/23 20:49	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/30/23 20:31	16984-48-8	
Sulfate	**1370**	mg/L	25.0	19.0	100		11/30/23 21:08	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**18100**	ug/L	100	6.2	1	11/25/23 21:48	11/30/23 10:16	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/25/23 21:48	11/30/23 10:16	7440-43-9	
Calcium	**569000**	ug/L	5000	338	5	11/25/23 21:48	11/30/23 11:08	7440-70-2	
Iron	**10600**	ug/L	100	30.0	1	11/25/23 21:48	11/30/23 10:16	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	11/25/23 21:48	11/30/23 10:16	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/25/23 21:48	11/30/23 10:16	7439-93-2	
Magnesium	**69100**	ug/L	1000	33.6	1	11/25/23 21:48	11/30/23 10:16	7439-95-4	
Molybdenum	**160**	ug/L	10.0	0.78	1	11/25/23 21:48	11/30/23 10:16	7439-98-7	
Potassium	**13500**	ug/L	1000	97.8	1	11/25/23 21:48	11/30/23 10:16	7440-09-7	
Silica	**13100**	ug/L	450		1	11/25/23 21:48	11/30/23 10:16	7631-86-9	N2
Sodium	**51700**	ug/L	1000	54.8	1	11/25/23 21:48	11/30/23 10:16	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**17600**	ug/L	100	6.2	1	11/26/23 17:41	11/27/23 16:40	7440-42-8	
Iron, Dissolved	**11000**	ug/L	100	30.0	1	11/26/23 17:41	11/27/23 16:40	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/26/23 17:41	11/27/23 16:40	7439-93-2	
Magnesium, Dissolved	**71200**	ug/L	1000	33.6	1	11/26/23 17:41	11/27/23 16:40	7439-95-4	
Molybdenum, Dissolved	**155**	ug/L	10.0	0.78	1	11/26/23 17:41	11/27/23 16:40	7439-98-7	
Potassium, Dissolved	**12900**	ug/L	1000	97.8	1	11/26/23 17:41	11/27/23 16:40	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	2.3	1	11/22/23 07:28	11/28/23 00:11	7429-90-5	
Arsenic	**1.0**	ug/L	1.0	0.075	1	11/22/23 07:28	11/23/23 02:29	7440-38-2	
Barium	**24.8**	ug/L	1.0	0.077	1	11/22/23 07:28	11/23/23 02:29	7440-39-3	
Cobalt	**1.1**	ug/L	1.0	0.046	1	11/22/23 07:28	11/23/23 02:29	7440-48-4	
Manganese	**2020**	ug/L	20.0	3.4	20	11/22/23 07:28	11/28/23 00:04	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	11/22/23 07:28	11/23/23 02:29	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.0	1	11/21/23 15:15	11/22/23 08:23	7429-90-5	
Manganese, Dissolved	**2060**	ug/L	20.0	3.2	20	11/21/23 15:15	11/27/23 09:50	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

Sample: MW-40I **Lab ID: 50359612002** Collected: 11/13/23 12:15 Received: 11/14/23 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**154**	mg/L	10.0	10.0	1		11/17/23 21:10		
Alkalinity,Bicarbonate (CaCO3)	**154**	mg/L	10.0	10.0	1		11/17/23 21:10		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/17/23 21:10		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2400**	mg/L	40.0	40.0	1		11/17/23 12:19		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.0**	Std. Units	0.10	0.10	1		11/30/23 11:49		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/16/23 11:05	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**7.8**	mg/L	1.0	0.18	5		11/16/23 14:36	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/15/23 02:47	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/15/23 02:47	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.26**	mg/L	0.15	0.15	1	11/29/23 14:30	11/30/23 09:13		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.5**	mg/L	1.0	0.24	1		11/30/23 03:26	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.1**	mg/L	1.0	0.24	1		11/22/23 05:46		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

Sample: Dup-9 **Lab ID: 50359612003** Collected: 11/13/23 08:00 Received: 11/14/23 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.68**	mg/L	0.050	0.0090	1		11/30/23 21:27	24959-67-9	
Chloride	**105**	mg/L	2.5	0.67	10		11/30/23 21:47	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/30/23 21:27	16984-48-8	
Sulfate	**1390**	mg/L	25.0	19.0	100		11/30/23 22:06	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**17800**	ug/L	100	6.2	1	11/25/23 21:48	11/30/23 10:17	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/25/23 21:48	11/30/23 10:17	7440-43-9	
Calcium	**567000**	ug/L	5000	338	5	11/25/23 21:48	11/30/23 11:09	7440-70-2	
Iron	**10500**	ug/L	100	30.0	1	11/25/23 21:48	11/30/23 10:17	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	11/25/23 21:48	11/30/23 10:17	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/25/23 21:48	11/30/23 10:17	7439-93-2	
Magnesium	**68400**	ug/L	1000	33.6	1	11/25/23 21:48	11/30/23 10:17	7439-95-4	
Molybdenum	**159**	ug/L	10.0	0.78	1	11/25/23 21:48	11/30/23 10:17	7439-98-7	
Potassium	**13300**	ug/L	1000	97.8	1	11/25/23 21:48	11/30/23 10:17	7440-09-7	
Silica	**12900**	ug/L	450		1	11/25/23 21:48	11/30/23 10:17	7631-86-9	N2
Sodium	**51300**	ug/L	1000	54.8	1	11/25/23 21:48	11/30/23 10:17	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**17300**	ug/L	100	6.2	1	11/26/23 17:41	11/27/23 16:41	7440-42-8	
Iron, Dissolved	**10900**	ug/L	100	30.0	1	11/26/23 17:41	11/27/23 16:41	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/26/23 17:41	11/27/23 16:41	7439-93-2	
Magnesium, Dissolved	**70600**	ug/L	1000	33.6	1	11/26/23 17:41	11/27/23 16:41	7439-95-4	
Molybdenum, Dissolved	**151**	ug/L	10.0	0.78	1	11/26/23 17:41	11/27/23 16:41	7439-98-7	
Potassium, Dissolved	**12800**	ug/L	1000	97.8	1	11/26/23 17:41	11/27/23 16:41	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	2.3	1	11/22/23 07:28	11/28/23 09:57	7429-90-5	
Arsenic	**1.1**	ug/L	1.0	0.075	1	11/22/23 07:28	11/28/23 00:28	7440-38-2	
Barium	**25.2**	ug/L	1.0	0.077	1	11/22/23 07:28	11/23/23 02:39	7440-39-3	
Cobalt	**1.2**	ug/L	1.0	0.046	1	11/22/23 07:28	11/28/23 09:57	7440-48-4	
Manganese	**2020**	ug/L	20.0	3.4	20	11/22/23 07:28	11/28/23 10:04	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	11/22/23 07:28	11/28/23 00:28	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.0	1	11/21/23 15:15	11/22/23 08:26	7429-90-5	
Manganese, Dissolved	**2020**	ug/L	20.0	3.2	20	11/21/23 15:15	11/27/23 09:53	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

Sample: Dup-9 **Lab ID: 50359612003** Collected: 11/13/23 08:00 Received: 11/14/23 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**158**	mg/L	10.0	10.0	1		11/18/23 00:50		
Alkalinity,Bicarbonate (CaCO3)	**158**	mg/L	10.0	10.0	1		11/18/23 00:50		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/18/23 00:50		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2300**	mg/L	40.0	40.0	1		11/17/23 12:20		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.0**	Std. Units	0.10	0.10	1		11/30/23 11:51		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/16/23 11:05	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**6.9**	mg/L	1.0	0.18	5		11/16/23 14:35	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/15/23 02:17	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/15/23 02:17	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.24**	mg/L	0.15	0.15	1	11/29/23 14:30	11/30/23 09:14		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.6**	mg/L	1.0	0.24	1		11/30/23 04:31	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.4**	mg/L	1.0	0.24	1		11/22/23 05:56		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

Sample: MW-40B **Lab ID: 50359612004** Collected: 11/13/23 13:10 Received: 11/14/23 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.12**	mg/L	0.050	0.0090	1		11/30/23 23:04	24959-67-9	
Chloride	**10.8**	mg/L	0.25	0.067	1		11/30/23 23:04	16887-00-6	
Fluoride	**0.12**	mg/L	0.10	0.017	1		11/30/23 23:04	16984-48-8	
Sulfate	**68.7**	mg/L	2.5	1.9	10		12/01/23 18:20	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**1260**	ug/L	100	6.2	1	11/25/23 21:48	11/30/23 10:19	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/25/23 21:48	11/30/23 10:19	7440-43-9	
Calcium	**110000**	ug/L	1000	67.7	1	11/25/23 21:48	11/30/23 10:19	7440-70-2	
Iron	ND	ug/L	100	30.0	1	11/25/23 21:48	11/30/23 10:19	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	11/25/23 21:48	11/30/23 10:19	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/25/23 21:48	11/30/23 10:19	7439-93-2	
Magnesium	**27200**	ug/L	1000	33.6	1	11/25/23 21:48	11/30/23 10:19	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	11/25/23 21:48	11/30/23 10:19	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	11/25/23 21:48	11/30/23 10:19	7440-09-7	
Silica	**12500**	ug/L	450		1	11/25/23 21:48	11/30/23 10:19	7631-86-9	N2
Sodium	**14100**	ug/L	1000	54.8	1	11/25/23 21:48	11/30/23 10:19	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1190**	ug/L	100	6.2	1	11/26/23 17:41	11/27/23 16:42	7440-42-8	
Iron, Dissolved	ND	ug/L	100	30.0	1	11/26/23 17:41	11/27/23 16:42	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/26/23 17:41	11/27/23 16:42	7439-93-2	
Magnesium, Dissolved	**27000**	ug/L	1000	33.6	1	11/26/23 17:41	11/27/23 16:42	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	11/26/23 17:41	11/27/23 16:42	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	97.8	1	11/26/23 17:41	11/27/23 16:42	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	2.3	1	11/22/23 07:28	11/28/23 09:53	7429-90-5	
Arsenic	ND	ug/L	1.0	0.075	1	11/22/23 07:28	11/28/23 00:25	7440-38-2	
Barium	**31.8**	ug/L	1.0	0.077	1	11/22/23 07:28	11/23/23 02:43	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/22/23 07:28	11/28/23 09:53	7440-48-4	
Manganese	**53.0**	ug/L	1.0	0.17	1	11/22/23 07:28	11/28/23 09:53	7439-96-5	
Selenium	**1.9**	ug/L	1.0	0.20	1	11/22/23 07:28	11/28/23 00:25	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.0	1	11/21/23 15:15	11/22/23 08:30	7429-90-5	
Manganese, Dissolved	**51.6**	ug/L	1.0	0.16	1	11/21/23 15:15	11/22/23 08:30	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

Sample: MW-40B **Lab ID: 50359612004** Collected: 11/13/23 13:10 Received: 11/14/23 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**274**	mg/L	10.0	10.0	1		11/18/23 00:50		
Alkalinity,Bicarbonate (CaCO3)	**274**	mg/L	10.0	10.0	1		11/18/23 00:50		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/18/23 00:50		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**410**	mg/L	10.0	10.0	1		11/17/23 12:20		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		11/30/23 11:51		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/16/23 11:05	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/16/23 14:37	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**7.2**	mg/L	0.50	0.055	5		11/15/23 04:01	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.50	0.020	5		11/15/23 04:01	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/29/23 14:30	11/30/23 09:14		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.24	1		11/30/23 04:57	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.9**	mg/L	1.0	0.24	1		11/22/23 06:07		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

Sample: MW-39A **Lab ID: 50359612005** Collected: 11/13/23 16:00 Received: 11/14/23 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.73**	mg/L	0.050	0.0090	1		11/30/23 23:42	24959-67-9	
Chloride	**117**	mg/L	25.0	6.7	100		12/01/23 00:01	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		11/30/23 23:42	16984-48-8	
Sulfate	**1500**	mg/L	25.0	19.0	100		12/01/23 00:01	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**23500**	ug/L	100	6.2	1	11/25/23 21:48	11/30/23 10:20	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/25/23 21:48	11/30/23 10:20	7440-43-9	
Calcium	**629000**	ug/L	5000	338	5	11/25/23 21:48	11/30/23 11:11	7440-70-2	
Iron	**10400**	ug/L	100	30.0	1	11/25/23 21:48	11/30/23 10:20	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	11/25/23 21:48	11/30/23 10:20	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/25/23 21:48	11/30/23 10:20	7439-93-2	
Magnesium	**53000**	ug/L	1000	33.6	1	11/25/23 21:48	11/30/23 10:20	7439-95-4	
Molybdenum	**363**	ug/L	10.0	0.78	1	11/25/23 21:48	11/30/23 10:20	7439-98-7	
Potassium	**11500**	ug/L	1000	97.8	1	11/25/23 21:48	11/30/23 10:20	7440-09-7	
Silica	**14200**	ug/L	450		1	11/25/23 21:48	11/30/23 10:20	7631-86-9	N2
Sodium	**53200**	ug/L	1000	54.8	1	11/25/23 21:48	11/30/23 10:20	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**23100**	ug/L	100	6.2	1	11/28/23 16:22	11/29/23 01:55	7440-42-8	
Iron, Dissolved	**10400**	ug/L	100	30.0	1	11/28/23 16:22	11/29/23 01:55	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/28/23 16:22	11/29/23 01:55	7439-93-2	
Magnesium, Dissolved	**53000**	ug/L	1000	33.6	1	11/28/23 16:22	11/29/23 01:55	7439-95-4	
Molybdenum, Dissolved	**355**	ug/L	10.0	0.78	1	11/28/23 16:22	11/29/23 01:55	7439-98-7	
Potassium, Dissolved	**11600**	ug/L	1000	97.8	1	11/28/23 16:22	11/29/23 01:55	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**12.8**	ug/L	10.0	2.3	1	11/22/23 07:28	11/28/23 10:07	7429-90-5	
Arsenic	ND	ug/L	1.0	0.075	1	11/22/23 07:28	11/28/23 00:38	7440-38-2	
Barium	**26.6**	ug/L	1.0	0.077	1	11/22/23 07:28	11/23/23 02:46	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/22/23 07:28	11/28/23 10:07	7440-48-4	
Manganese	**2070**	ug/L	20.0	3.4	20	11/22/23 07:28	11/28/23 10:16	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	11/22/23 07:28	11/28/23 00:38	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.0	1	11/21/23 15:15	11/22/23 05:12	7429-90-5	
Manganese, Dissolved	**2210**	ug/L	20.0	3.2	20	11/21/23 15:15	11/27/23 09:57	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

Sample: MW-39A **Lab ID: 50359612005** Collected: 11/13/23 16:00 Received: 11/14/23 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**134**	mg/L	10.0	10.0	1		11/18/23 00:50		
Alkalinity,Bicarbonate (CaCO3)	**134**	mg/L	10.0	10.0	1		11/18/23 00:50		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/18/23 00:50		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2580**	mg/L	40.0	40.0	1		11/17/23 12:20		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.0**	Std. Units	0.10	0.10	1		11/30/23 11:52		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/16/23 11:05	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**8.4**	mg/L	1.0	0.18	5		11/16/23 14:39	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/15/23 04:07	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/15/23 04:07	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.32**	mg/L	0.15	0.15	1	11/29/23 14:30	11/30/23 09:16		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.8**	mg/L	1.0	0.24	1		11/30/23 05:17	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**4.0**	mg/L	1.0	0.24	1		11/22/23 06:18		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

QC Batch: 764394
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359612001, 50359612002, 50359612003, 50359612004, 50359612005

METHOD BLANK: 3503811 Matrix: Water
Associated Lab Samples: 50359612001, 50359612002, 50359612003, 50359612004, 50359612005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	11/30/23 08:35	
Chloride	mg/L	ND	0.25	0.067	11/30/23 08:35	
Fluoride	mg/L	ND	0.10	0.017	11/30/23 08:35	
Sulfate	mg/L	ND	0.25	0.19	11/30/23 08:35	

LABORATORY CONTROL SAMPLE: 3503812

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.96	96	80-120	
Chloride	mg/L	2.5	2.4	94	80-120	
Fluoride	mg/L	1	0.98	98	80-120	
Sulfate	mg/L	5	4.7	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503813 3503814

Parameter	Units	50359602001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	0.33	1	1	1.3	1.3	92	92	80-120	0	15	
Chloride	mg/L	60.1	25	25	78.0	78.0	72	72	80-120	0	15	M0
Fluoride	mg/L	0.19	1	1	1.2	1.2	96	97	80-120	1	15	
Sulfate	mg/L	ND	5	5	4.4	4.4	86	86	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

QC Batch: 764451
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359612001, 50359612002, 50359612003, 50359612004, 50359612005

METHOD BLANK: 3503982 Matrix: Water
Associated Lab Samples: 50359612001, 50359612002, 50359612003, 50359612004, 50359612005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	11/30/23 10:13	
Cadmium	ug/L	ND	2.0	0.60	11/30/23 10:13	
Calcium	ug/L	ND	1000	67.7	11/30/23 10:13	
Iron	ug/L	ND	100	30.0	11/30/23 10:13	
Lead	ug/L	ND	10.0	2.5	11/30/23 10:13	
Lithium	ug/L	ND	20.0	6.8	11/30/23 10:13	
Magnesium	ug/L	ND	1000	33.6	11/30/23 10:13	
Molybdenum	ug/L	ND	10.0	0.78	11/30/23 10:13	
Potassium	ug/L	ND	1000	97.8	11/30/23 10:13	
Silica	ug/L	ND	450		11/30/23 10:13	N2
Sodium	ug/L	ND	1000	54.8	11/30/23 10:13	

LABORATORY CONTROL SAMPLE: 3503983

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	986	99	80-120	
Cadmium	ug/L	1000	1010	101	80-120	
Calcium	ug/L	10000	10300	103	80-120	
Iron	ug/L	10000	10200	102	80-120	
Lead	ug/L	1000	957	96	80-120	
Lithium	ug/L	1000	1070	107	80-120	
Magnesium	ug/L	10000	9900	99	80-120	
Molybdenum	ug/L	1000	1030	103	80-120	
Potassium	ug/L	10000	10100	101	80-120	
Silica	ug/L	10700	10800	101	80-120	N2
Sodium	ug/L	10000	10100	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503984 3503985

Parameter	Units	50360081013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L				1330	1260				5	20	
Cadmium	ug/L				1050	995				6	20	
Calcium	ug/L				174000	166000				4	20	P6
Iron	ug/L				10300	9730				5	20	
Lead	ug/L				947	899				5	20	
Lithium	ug/L				1110	1050				6	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		3503984			3503985							
Parameter	Units	50360081013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Magnesium	ug/L				52900	50600				5	20	
Molybdenum	ug/L				1080	1020				6	20	
Potassium	ug/L				14400	13700				5	20	
Silica	ug/L				22000	20900				5	20	N2
Sodium	ug/L				72600	69000				5	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

QC Batch: 764740
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359612001, 50359612002, 50359612003, 50359612004

METHOD BLANK: 3505233 Matrix: Water
Associated Lab Samples: 50359612001, 50359612002, 50359612003, 50359612004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	11/27/23 16:00	
Iron, Dissolved	ug/L	ND	100	30.0	11/27/23 16:00	
Lithium, Dissolved	ug/L	ND	20.0	6.8	11/27/23 16:00	
Magnesium, Dissolved	ug/L	ND	1000	33.6	11/27/23 16:00	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	11/27/23 16:00	
Potassium, Dissolved	ug/L	ND	1000	97.8	11/27/23 16:00	

LABORATORY CONTROL SAMPLE: 3505234

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	926	93	80-120	
Iron, Dissolved	ug/L	10000	10200	102	80-120	
Lithium, Dissolved	ug/L	1000	993	99	80-120	
Magnesium, Dissolved	ug/L	10000	9590	96	80-120	
Molybdenum, Dissolved	ug/L	1000	969	97	80-120	
Potassium, Dissolved	ug/L	10000	9500	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3505235 3505236

Parameter	Units	50359566001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	ND	1000	1000	1060	1050	99	98	75-125	1	20	
Iron, Dissolved	ug/L	101	10000	10000	10600	10500	105	104	75-125	1	20	
Lithium, Dissolved	ug/L	ND	1000	1000	1040	1030	103	103	75-125	0	20	
Magnesium, Dissolved	ug/L	42500	10000	10000	51600	50900	91	85	75-125	1	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1010	1000	101	100	75-125	1	20	
Potassium, Dissolved	ug/L	ND	10000	10000	10200	10100	101	100	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

QC Batch: 764932
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359612005

METHOD BLANK: 3505778 Matrix: Water
Associated Lab Samples: 50359612005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	11/29/23 01:29	
Iron, Dissolved	ug/L	ND	100	30.0	11/29/23 01:29	
Lithium, Dissolved	ug/L	ND	20.0	6.8	11/29/23 01:29	
Magnesium, Dissolved	ug/L	ND	1000	33.6	11/29/23 01:29	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	11/29/23 01:29	
Potassium, Dissolved	ug/L	ND	1000	97.8	11/29/23 01:29	

LABORATORY CONTROL SAMPLE: 3505779

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	942	94	80-120	
Iron, Dissolved	ug/L	10000	9810	98	80-120	
Lithium, Dissolved	ug/L	1000	986	99	80-120	
Magnesium, Dissolved	ug/L	10000	9490	95	80-120	
Molybdenum, Dissolved	ug/L	1000	975	97	80-120	
Potassium, Dissolved	ug/L	10000	9850	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3505780 3505781

Parameter	Units	50359434001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	<0.30 mg/L	1000	1000	1080	1040	96	92	75-125	4	20	
Iron, Dissolved	ug/L	1040	10000	10000	10800	10400	97	94	75-125	3	20	
Lithium, Dissolved	ug/L	<0.010 mg/L	1000	1000	978	941	97	93	75-125	4	20	
Magnesium, Dissolved	ug/L	17.4 mg/L	10000	10000	26200	25300	88	79	75-125	4	20	
Molybdenum, Dissolved	ug/L	<0.050 mg/L	1000	1000	979	942	98	94	75-125	4	20	
Potassium, Dissolved	ug/L	4.2 mg/L	10000	10000	14000	13400	98	92	75-125	4	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

QC Batch: 764329
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359612001, 50359612002, 50359612003, 50359612004, 50359612005

METHOD BLANK: 3503424 Matrix: Water
Associated Lab Samples: 50359612001, 50359612002, 50359612003, 50359612004, 50359612005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	2.3	11/23/23 01:15	
Arsenic	ug/L	ND	1.0	0.075	11/23/23 01:15	
Barium	ug/L	ND	1.0	0.077	11/23/23 01:15	
Cobalt	ug/L	ND	1.0	0.046	11/23/23 01:15	
Manganese	ug/L	ND	1.0	0.17	11/23/23 01:15	
Selenium	ug/L	ND	1.0	0.20	11/23/23 01:15	

LABORATORY CONTROL SAMPLE: 3503425

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	402	101	80-120	
Arsenic	ug/L	40	38.8	97	80-120	
Barium	ug/L	40	39.4	98	80-120	
Cobalt	ug/L	40	41.0	102	80-120	
Manganese	ug/L	40	40.8	102	80-120	
Selenium	ug/L	40	40.7	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503426 3503427

Parameter	Units	50359596005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	ND	400	400	398	404	98	99	75-125	1	20	CC
Arsenic	ug/L	ND	40	40	38.8	38.3	96	95	75-125	1	20	
Barium	ug/L	33.0	40	40	71.6	70.7	97	94	75-125	1	20	
Cobalt	ug/L	ND	40	40	38.2	37.9	95	94	75-125	1	20	
Manganese	ug/L	573	40	40	611	602	93	72	75-125	1	20	E,P6
Selenium	ug/L	ND	40	40	39.3	39.4	98	98	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

QC Batch: 764179
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359612001, 50359612002, 50359612003, 50359612004, 50359612005

METHOD BLANK: 3502829 Matrix: Water
Associated Lab Samples: 50359612001, 50359612002, 50359612003, 50359612004, 50359612005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.0	11/22/23 00:53	
Manganese, Dissolved	ug/L	ND	1.0	0.16	11/22/23 00:53	

LABORATORY CONTROL SAMPLE: 3502830

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	391	98	80-120	
Manganese, Dissolved	ug/L	40	40.9	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3502831 3502832

Parameter	Units	50359612005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	367	365	91	91	75-125	1	20	
Manganese, Dissolved	ug/L	2210	40	40	2220	2220	33	20	75-125	0	20	P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

QC Batch: 763718
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359612001, 50359612002

METHOD BLANK: 3500887 Matrix: Water
Associated Lab Samples: 50359612001, 50359612002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/17/23 21:10	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/17/23 21:10	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/17/23 21:10	

LABORATORY CONTROL SAMPLE: 3500888

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.5	101	90-110	

SAMPLE DUPLICATE: 3500889

Parameter	Units	50359289001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	179	187	4	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	179	187	4	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3500890

Parameter	Units	50359608001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	862	883	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	862	883	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

QC Batch: 763734
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359612003, 50359612004, 50359612005

METHOD BLANK: 3501015 Matrix: Water
Associated Lab Samples: 50359612003, 50359612004, 50359612005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/18/23 00:50	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/18/23 00:50	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/18/23 00:50	

LABORATORY CONTROL SAMPLE: 3501016

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.4	103	90-110	

SAMPLE DUPLICATE: 3501017

Parameter	Units	50359612003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	158	161	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	158	161	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3501018

Parameter	Units	50359671006 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	6020	6170	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	6020	6170	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

QC Batch: 763572 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359612001, 50359612002, 50359612003, 50359612004, 50359612005

METHOD BLANK: 3500122 Matrix: Water
Associated Lab Samples: 50359612001, 50359612002, 50359612003, 50359612004, 50359612005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/17/23 12:17	

LABORATORY CONTROL SAMPLE: 3500123

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	278	93	80-120	

SAMPLE DUPLICATE: 3500124

Parameter	Units	50359610004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	54	49	10	10	

SAMPLE DUPLICATE: 3500125

Parameter	Units	50359613005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	672	658	2	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

QC Batch: 765557
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359612001, 50359612002, 50359612003, 50359612004, 50359612005

SAMPLE DUPLICATE: 3508186

Parameter	Units	50359596001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.0	7.1	0	2	H3

SAMPLE DUPLICATE: 3508187

Parameter	Units	50359670001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.2	7.3	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

QC Batch: 763322 | Analysis Method: SM 4500-S2-D
QC Batch Method: SM 4500-S2-D | Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359612001, 50359612002, 50359612003, 50359612004, 50359612005

METHOD BLANK: 3498699 Matrix: Water
Associated Lab Samples: 50359612001, 50359612002, 50359612003, 50359612004, 50359612005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/16/23 11:05	

LABORATORY CONTROL SAMPLE: 3498700

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	103	90-110	

MATRIX SPIKE SAMPLE: 3498701

Parameter	Units	50359612004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.54	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498702 3498703

Parameter	Units	50359671006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	0.26J	10	10	5.0	4.7	47	44	90-110	7	20	M3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

QC Batch: 763334
QC Batch Method: HACH 8146
Analysis Method: HACH 8146
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359612001, 50359612002, 50359612003, 50359612004, 50359612005

METHOD BLANK: 3498763 Matrix: Water
Associated Lab Samples: 50359612001, 50359612002, 50359612003, 50359612004, 50359612005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/16/23 14:33	H3,N2

LABORATORY CONTROL SAMPLE: 3498764

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	0.98	98	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498765 3498766

Parameter	Units	50359566001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.1	105	104	90-110	1	20	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498767 3498768

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.0	1.1	102	105	90-110	3	20	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

QC Batch: 762979
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359612001, 50359612002, 50359612003, 50359612004

METHOD BLANK: 3497086 Matrix: Water
Associated Lab Samples: 50359612001, 50359612002, 50359612003, 50359612004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/15/23 02:10	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/15/23 02:10	

LABORATORY CONTROL SAMPLE: 3497087

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.1	108	90-110	
Nitrogen, Nitrite	mg/L	1	1.1	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3497088 3497089

Parameter	Units	50359608002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.1	1.1	108	108	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.1	1.1	106	106	90-110	0	20	

MATRIX SPIKE SAMPLE: 3497090

Parameter	Units	50359608003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.1	114	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.1	105	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

QC Batch: 762980
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359612005

METHOD BLANK: 3497091 Matrix: Water
Associated Lab Samples: 50359612005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/15/23 03:04	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/15/23 03:04	

LABORATORY CONTROL SAMPLE: 3497092

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.1	108	90-110	
Nitrogen, Nitrite	mg/L	1	1.1	105	90-110	

MATRIX SPIKE SAMPLE: 3497093

Parameter	Units	50359670001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.1	112	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	104	90-110	

MATRIX SPIKE SAMPLE: 3497094

Parameter	Units	50359670006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.1	107	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.1	104	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

QC Batch: 765297
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359612001

METHOD BLANK: 3507153 Matrix: Water
Associated Lab Samples: 50359612001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	11/30/23 15:06	

LABORATORY CONTROL SAMPLE: 3507154

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3507155 3507156

Parameter	Units	50359596002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	0.81			2.3	2.3				0		

MATRIX SPIKE SAMPLE: 3507157

Parameter	Units	50359605001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	<0.15		1.6			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

QC Batch: 765300
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359612002, 50359612003, 50359612004, 50359612005

METHOD BLANK: 3507158 Matrix: Water
Associated Lab Samples: 50359612002, 50359612003, 50359612004, 50359612005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	11/30/23 09:12	

LABORATORY CONTROL SAMPLE: 3507159

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3507160 3507161

Parameter	Units	50359638001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	0.91			2.6	2.5				4		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

QC Batch: 765267
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359612001, 50359612002, 50359612003, 50359612004, 50359612005

METHOD BLANK: 3507061 Matrix: Water
Associated Lab Samples: 50359612001, 50359612002, 50359612003, 50359612004, 50359612005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	11/29/23 20:06	

LABORATORY CONTROL SAMPLE: 3507062

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.6	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3507063 3507064

Parameter	Units	50359597001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	3.4	10	10	13.6	13.6	101	102	80-120	1	20	

MATRIX SPIKE SAMPLE: 3507065

Parameter	Units	50359597003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	4.3	10	14.7	103	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

QC Batch: 764236
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359612001, 50359612002, 50359612003, 50359612004, 50359612005

METHOD BLANK: 3503010 Matrix: Water
Associated Lab Samples: 50359612001, 50359612002, 50359612003, 50359612004, 50359612005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	11/22/23 02:43	

LABORATORY CONTROL SAMPLE: 3503011

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.6	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503012 3503013

Parameter	Units	50359566001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.5	10	10	10.6	10.8	91	93	80-120	2	20	

MATRIX SPIKE SAMPLE: 3503014

Parameter	Units	50359596001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	1.9	10	11.2	93	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

Sample: MW-40A **Lab ID: 50359612001** Collected: 11/13/23 11:00 Received: 11/14/23 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.358 ± 0.657 (1.17) C:NA T:89%**	pCi/L	12/08/23 12:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.815 ± 0.389 (0.647) C:84% T:81%**	pCi/L	12/04/23 15:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.17 ± 1.05 (1.82)**	pCi/L	12/08/23 14:03	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

Sample: MW-40I **Lab ID: 50359612002** Collected: 11/13/23 12:15 Received: 11/14/23 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.200 ± 0.963 (1.82) C:NA T:90%**	pCi/L	12/08/23 12:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.763 ± 0.395 (0.692) C:86% T:84%**	pCi/L	12/04/23 15:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.963 ± 1.36 (2.51)**	pCi/L	12/08/23 14:03	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

Sample: Dup-9 **Lab ID: 50359612003** Collected: 11/13/23 08:00 Received: 11/14/23 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.170 ± 0.744 (1.54) C:NA T:93%**	pCi/L	12/08/23 12:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.16 ± 0.461 (0.694) C:77% T:86%**	pCi/L	12/04/23 15:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.16 ± 1.21 (2.23)**	pCi/L	12/08/23 14:03	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

Sample: MW-40B **Lab ID: 50359612004** Collected: 11/13/23 13:10 Received: 11/14/23 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.281 ± 0.488 (1.23) C:NA T:88%**	pCi/L	12/08/23 12:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.328 ± 0.369 (0.766) C:79% T:80%**	pCi/L	12/04/23 15:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.328 ± 0.857 (2.00)**	pCi/L	12/08/23 14:03	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

Sample: MW-39A **Lab ID: 50359612005** Collected: 11/13/23 16:00 Received: 11/14/23 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.699 ± 0.669 (1.02) C:NA T:94%**	pCi/L	12/08/23 12:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.18 ± 0.468 (0.706) C:86% T:79%**	pCi/L	12/04/23 15:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.88 ± 1.14 (1.73)**	pCi/L	12/08/23 14:03	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

QC Batch: 630822
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359612001, 50359612002, 50359612003, 50359612004, 50359612005

METHOD BLANK: 3075674 Matrix: Water
Associated Lab Samples: 50359612001, 50359612002, 50359612003, 50359612004, 50359612005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.127 ± 0.353 (0.685) C:NA T:93%	pCi/L	12/08/23 11:58	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

QC Batch: 630823
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359612001, 50359612002, 50359612003, 50359612004, 50359612005

METHOD BLANK: 3075675 Matrix: Water
Associated Lab Samples: 50359612001, 50359612002, 50359612003, 50359612004, 50359612005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.692 ± 0.315 (0.509) C:89% T:91%	pCi/L	12/04/23 12:07	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

CC	The continuing calibration for this compound is outside of method control limits. The result is estimated.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359612001	**MW-40A**	EPA 9056	764394		
50359612002	**MW-40I**	EPA 9056	764394		
50359612003	**Dup-9**	EPA 9056	764394		
50359612004	**MW-40B**	EPA 9056	764394		
50359612005	**MW-39A**	EPA 9056	764394		
50359612001	**MW-40A**	EPA 3010	764451	EPA 6010	765291
50359612002	**MW-40I**	EPA 3010	764451	EPA 6010	765291
50359612003	**Dup-9**	EPA 3010	764451	EPA 6010	765291
50359612004	**MW-40B**	EPA 3010	764451	EPA 6010	765291
50359612005	**MW-39A**	EPA 3010	764451	EPA 6010	765291
50359612001	**MW-40A**	EPA 3010	764740	EPA 6010	764885
50359612002	**MW-40I**	EPA 3010	764740	EPA 6010	764885
50359612003	**Dup-9**	EPA 3010	764740	EPA 6010	764885
50359612004	**MW-40B**	EPA 3010	764740	EPA 6010	764885
50359612005	**MW-39A**	EPA 3010	764932	EPA 6010	765210
50359612001	**MW-40A**	EPA 200.2	764329	EPA 6020	764580
50359612002	**MW-40I**	EPA 200.2	764329	EPA 6020	764580
50359612003	**Dup-9**	EPA 200.2	764329	EPA 6020	764580
50359612004	**MW-40B**	EPA 200.2	764329	EPA 6020	764580
50359612005	**MW-39A**	EPA 200.2	764329	EPA 6020	764580
50359612001	**MW-40A**	EPA 200.2	764179	EPA 6020	764417
50359612002	**MW-40I**	EPA 200.2	764179	EPA 6020	764417
50359612003	**Dup-9**	EPA 200.2	764179	EPA 6020	764417
50359612004	**MW-40B**	EPA 200.2	764179	EPA 6020	764417
50359612005	**MW-39A**	EPA 200.2	764179	EPA 6020	764417
50359612001	**MW-40A**	EPA 903.1	630822		
50359612002	**MW-40I**	EPA 903.1	630822		
50359612003	**Dup-9**	EPA 903.1	630822		
50359612004	**MW-40B**	EPA 903.1	630822		
50359612005	**MW-39A**	EPA 903.1	630822		
50359612001	**MW-40A**	EPA 904.0	630823		
50359612002	**MW-40I**	EPA 904.0	630823		
50359612003	**Dup-9**	EPA 904.0	630823		
50359612004	**MW-40B**	EPA 904.0	630823		
50359612005	**MW-39A**	EPA 904.0	630823		
50359612001	**MW-40A**	Total Radium Calculation	634870		
50359612002	**MW-40I**	Total Radium Calculation	634870		
50359612003	**Dup-9**	Total Radium Calculation	634870		
50359612004	**MW-40B**	Total Radium Calculation	634870		
50359612005	**MW-39A**	Total Radium Calculation	634870		
50359612001	**MW-40A**	SM 2320B	763718		
50359612002	**MW-40I**	SM 2320B	763718		
50359612003	**Dup-9**	SM 2320B	763734		
50359612004	**MW-40B**	SM 2320B	763734		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359612

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359612005	**MW-39A**	SM 2320B	763734		
50359612001	**MW-40A**	SM 2540C	763572		
50359612002	**MW-40I**	SM 2540C	763572		
50359612003	**Dup-9**	SM 2540C	763572		
50359612004	**MW-40B**	SM 2540C	763572		
50359612005	**MW-39A**	SM 2540C	763572		
50359612001	**MW-40A**	SM 4500-H+B	765557		
50359612002	**MW-40I**	SM 4500-H+B	765557		
50359612003	**Dup-9**	SM 4500-H+B	765557		
50359612004	**MW-40B**	SM 4500-H+B	765557		
50359612005	**MW-39A**	SM 4500-H+B	765557		
50359612001	**MW-40A**	SM 4500-S2-D	763322		
50359612002	**MW-40I**	SM 4500-S2-D	763322		
50359612003	**Dup-9**	SM 4500-S2-D	763322		
50359612004	**MW-40B**	SM 4500-S2-D	763322		
50359612005	**MW-39A**	SM 4500-S2-D	763322		
50359612001	**MW-40A**	HACH 8146	763334		
50359612002	**MW-40I**	HACH 8146	763334		
50359612003	**Dup-9**	HACH 8146	763334		
50359612004	**MW-40B**	HACH 8146	763334		
50359612005	**MW-39A**	HACH 8146	763334		
50359612001	**MW-40A**	EPA 353.2	762979		
50359612002	**MW-40I**	EPA 353.2	762979		
50359612003	**Dup-9**	EPA 353.2	762979		
50359612004	**MW-40B**	EPA 353.2	762979		
50359612005	**MW-39A**	EPA 353.2	762980		
50359612001	**MW-40A**	EPA 365.1	765297	EPA 365.1	765531
50359612002	**MW-40I**	EPA 365.1	765300	EPA 365.1	765532
50359612003	**Dup-9**	EPA 365.1	765300	EPA 365.1	765532
50359612004	**MW-40B**	EPA 365.1	765300	EPA 365.1	765532
50359612005	**MW-39A**	EPA 365.1	765300	EPA 365.1	765532
50359612001	**MW-40A**	SM 5310C	765267		
50359612002	**MW-40I**	SM 5310C	765267		
50359612003	**Dup-9**	SM 5310C	765267		
50359612004	**MW-40B**	SM 5310C	765267		
50359612005	**MW-39A**	SM 5310C	765267		
50359612001	**MW-40A**	SM 5310C	764236		
50359612002	**MW-40I**	SM 5310C	764236		
50359612003	**Dup-9**	SM 5310C	764236		
50359612004	**MW-40B**	SM 5310C	764236		
50359612005	**MW-39A**	SM 5310C	764236		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

50359617

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A – Required Client Information:		Section B – Required Project Information:		Section C – Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P4R4 Nov 2023	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:		Pace Profile #:	10498/53

Regulatory Agency: | State / Location: IN

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO2, NO3 Wet	(Br, Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity*, Ferrous Iron, pH	TOC by 5310C	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum			Residual Chlorine (Y/N)	
																			Y				Y							
1	MW-40A			11/13/23	1025	11/13/23	1100		11	X	X	X		X					X	X	X	X	X	X	X	X	X			001
2	MW-40I			11/13/23	1200	11/13/23	1215		11	X	X	X		X					X	X	X	X	X	X	X	X	X			002
3	DUP-9			11/13/23		11/13/23			11	X	X	X		X					X	X	X	X	X	X	X	X	X			003
4	MW-40B			11/13/23	1300	11/13/23	1310		11	X	X	X		X					X	X	X	X	X	X	X	X	X			004
5	MW-39A			11/13/23	1540	11/13/23	1600		11	X	X	X		X					X	X	X	X	X	X	X	X	X			005
6																														
7																														
8																														
9																														
10																														
11																														
12																														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Metals: 6010 (B, Cd, Fe, Pb, Mo, Ca, Mg, Na, K, Li, sila) (11)	Josh O'Brien	11/14/23	7:45 AM	Joy Williams	11-14	7:45 AM	see scan			
20 (Al, Mn, Co, As, Se, Ba) (6)	Joy Williams	11-14-23	10:00 AM		11/14/23	1000		Y	Y	Y
Dissolved FF 6010 (B, Fe, Mo, Mg, K, Li) (6) FF 6020 (Al, Mn) (2)										
ad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Josh O'Brien

SIGNATURE of SAMPLER: Josh O'Brien DATE Signed: 11-13-23

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 11/14/23 1100 LR

1. **Courier:** ☐ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No

(If yes)Seals Intact: ☒ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D (E) F G H

4. **Cooler Temperature(s):** 1.1/1.1 | 1.8/1.8 | 1.3/1.3 | (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☒ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	X		
Short Hold Time Analysis (48 hours or less)? Analysis: NO3	X					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
Containers Intact?:	X		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent X
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1												1	1			2	1	2	1	1	1		1				W	✓	✓		✓
2																															
3																															
4																															
5												4	4			4	4	4	4	4	4		4				4	4	4		4
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 12, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 15, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50359710001	**AP-10B**	Water	11/14/23 11:40	11/15/23 10:25
50359710002	**AP-10I**	Water	11/14/23 14:20	11/15/23 10:25
50359710003	**AP-10B MS**	Water	11/14/23 11:40	11/15/23 10:25
50359710004	**AP-10B MSD**	Water	11/14/23 11:40	11/15/23 10:25

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50359710001	**AP-10B**	EPA 9056	ADM	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359710002	**AP-10I**	EPA 9056	ADM	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359710003	**AP-10B MS**	EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
50359710004	**AP-10B MSD**	EPA 903.1	MAR1	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	JJS1	1	PASI-PA

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359710001	**AP-10B**					
EPA 9056	Bromide	0.067	mg/L	0.050	12/01/23 11:19	
EPA 9056	Chloride	5.6	mg/L	0.25	12/01/23 11:19	
EPA 9056	Fluoride	0.12	mg/L	0.10	12/01/23 11:19	
EPA 9056	Sulfate	44.2	mg/L	2.5	12/01/23 11:38	
EPA 6010	Boron	788	ug/L	100	11/30/23 11:14	
EPA 6010	Calcium	104000	ug/L	1000	11/30/23 11:14	
EPA 6010	Iron	145	ug/L	100	11/30/23 11:14	
EPA 6010	Magnesium	27200	ug/L	1000	11/30/23 11:14	
EPA 6010	Potassium	1050	ug/L	1000	11/30/23 11:14	
EPA 6010	Silica	11200	ug/L	450	11/30/23 11:14	N2
EPA 6010	Sodium	17700	ug/L	1000	11/30/23 11:14	
EPA 6010	Boron, Dissolved	778	ug/L	100	11/29/23 11:41	
EPA 6010	Magnesium, Dissolved	26500	ug/L	1000	11/29/23 11:41	
EPA 6010	Potassium, Dissolved	1080	ug/L	1000	11/29/23 11:41	
EPA 6020	Aluminum	29.8	ug/L	10.0	11/28/23 23:01	
EPA 6020	Barium	77.3	ug/L	1.0	11/28/23 23:01	
EPA 6020	Manganese	3.7	ug/L	1.0	11/28/23 23:01	
EPA 6020	Selenium	1.7	ug/L	1.0	11/28/23 23:01	
EPA 903.1	Radium-226	0.122 ± 0.338 (0.655) C:NA T:93%	pCi/L		12/09/23 14:11	
EPA 904.0	Radium-228	0.849 ± 0.429 (0.748) C:88% T:78%	pCi/L		12/05/23 15:28	
Total Radium Calculation	Total Radium	0.971 ± 0.767 (1.40)	pCi/L		12/11/23 16:18	
SM 2320B	Alkalinity, Total as CaCO3	332	mg/L	10.0	11/18/23 03:46	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	332	mg/L	10.0	11/18/23 03:46	
SM 2540C	Total Dissolved Solids	410	mg/L	10.0	11/20/23 12:41	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	11/30/23 15:53	H3
EPA 353.2	Nitrogen, Nitrate	4.4	mg/L	0.10	11/16/23 02:47	
50359710002	**AP-10I**					
EPA 9056	Bromide	2.5	mg/L	0.050	12/01/23 11:56	
EPA 9056	Chloride	103	mg/L	2.5	12/01/23 12:14	
EPA 9056	Fluoride	0.14	mg/L	0.10	12/01/23 11:56	
EPA 9056	Sulfate	769	mg/L	25.0	12/01/23 12:33	
EPA 6010	Boron	12100	ug/L	100	11/30/23 11:24	
EPA 6010	Calcium	342000	ug/L	2000	11/30/23 12:18	
EPA 6010	Iron	5670	ug/L	100	11/30/23 11:24	
EPA 6010	Lithium	20.5	ug/L	20.0	11/30/23 11:24	
EPA 6010	Magnesium	47500	ug/L	1000	11/30/23 11:24	
EPA 6010	Molybdenum	113	ug/L	10.0	11/30/23 11:24	
EPA 6010	Potassium	9540	ug/L	1000	11/30/23 11:24	
EPA 6010	Silica	13500	ug/L	450	11/30/23 11:24	N2
EPA 6010	Sodium	53400	ug/L	1000	11/30/23 11:24	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359710002	**AP-10I**					
EPA 6010	Boron, Dissolved	11700	ug/L	100	11/29/23 11:51	
EPA 6010	Iron, Dissolved	5210	ug/L	100	11/29/23 11:51	
EPA 6010	Lithium, Dissolved	21.2	ug/L	20.0	11/29/23 11:51	
EPA 6010	Magnesium, Dissolved	45300	ug/L	1000	11/29/23 11:51	
EPA 6010	Molybdenum, Dissolved	110	ug/L	10.0	11/29/23 11:51	
EPA 6010	Potassium, Dissolved	9350	ug/L	1000	11/29/23 11:51	
EPA 6020	Aluminum	48.9	ug/L	10.0	11/28/23 23:25	
EPA 6020	Barium	76.7	ug/L	1.0	11/28/23 23:25	
EPA 6020	Manganese	2800	ug/L	20.0	11/29/23 20:14	
EPA 6020	Manganese, Dissolved	2860	ug/L	20.0	11/28/23 10:26	
EPA 903.1	Radium-226	0.626 ± 0.844 (1.42) C:NA T:83%	pCi/L		12/09/23 14:11	
EPA 904.0	Radium-228	1.05 ± 0.433 (0.662) C:83% T:84%	pCi/L		12/05/23 15:28	
Total Radium Calculation	Total Radium	1.68 ± 1.28 (2.08)	pCi/L		12/11/23 16:18	
SM 2320B	Alkalinity, Total as CaCO3	261	mg/L	10.0	11/18/23 03:46	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	261	mg/L	10.0	11/18/23 03:46	
SM 2540C	Total Dissolved Solids	1500	mg/L	20.0	11/20/23 12:41	
SM 4500-H+B	pH at 25 Degrees C	7.0	Std. Units	0.10	11/30/23 15:54	H3
HACH 8146	Iron, Ferrous	1.8	mg/L	0.20	11/16/23 15:31	H3,N2
EPA 365.1	Phosphate as P04	0.42	mg/L	0.15	12/01/23 07:22	
SM 5310C	Total Organic Carbon	1.5	mg/L	1.0	11/30/23 16:39	
SM 5310C	Dissolved Organic Carbon	3.6	mg/L	1.0	12/01/23 01:36	
50359710003	**AP-10B MS**					
EPA 903.1	Radium-226	112.78 %REC ± NA (NA) C:NA T:NA	pCi/L		12/09/23 14:11	
EPA 904.0	Radium-228	68.80% REC ± NA (NA) C:NA T:NA	pCi/L		12/05/23 15:28	
50359710004	**AP-10B MSD**					
EPA 903.1	Radium-226	83.64 %REC 29.68RPD ± NA (NA) C:NA T:NA	pCi/L		12/09/23 14:11	
EPA 904.0	Radium-228	74.73% REC 8.26 RPD ± NA (NA) C:NA T:NA	pCi/L		12/05/23 15:29	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

Sample: AP-10B **Lab ID: 50359710001** Collected: 11/14/23 11:40 Received: 11/15/23 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.067**	mg/L	0.050	0.0090	1		12/01/23 11:19	24959-67-9	
Chloride	**5.6**	mg/L	0.25	0.067	1		12/01/23 11:19	16887-00-6	
Fluoride	**0.12**	mg/L	0.10	0.017	1		12/01/23 11:19	16984-48-8	
Sulfate	**44.2**	mg/L	2.5	1.9	10		12/01/23 11:38	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**788**	ug/L	100	11.4	1	11/22/23 15:51	11/30/23 11:14	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/22/23 15:51	11/30/23 11:14	7440-43-9	
Calcium	**104000**	ug/L	1000	56.7	1	11/22/23 15:51	11/30/23 11:14	7440-70-2	
Iron	**145**	ug/L	100	18.1	1	11/22/23 15:51	11/30/23 11:14	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/22/23 15:51	11/30/23 11:14	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/22/23 15:51	11/30/23 11:14	7439-93-2	
Magnesium	**27200**	ug/L	1000	32.8	1	11/22/23 15:51	11/30/23 11:14	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	11/22/23 15:51	11/30/23 11:14	7439-98-7	
Potassium	**1050**	ug/L	1000	120	1	11/22/23 15:51	11/30/23 11:14	7440-09-7	
Silica	**11200**	ug/L	450		1	11/22/23 15:51	11/30/23 11:14	7631-86-9	N2
Sodium	**17700**	ug/L	1000	48.2	1	11/22/23 15:51	11/30/23 11:14	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**778**	ug/L	100	11.4	1	11/28/23 16:28	11/29/23 11:41	7440-42-8	
Iron, Dissolved	ND	ug/L	100	18.1	1	11/28/23 16:28	11/29/23 11:41	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	11/28/23 16:28	11/29/23 11:41	7439-93-2	
Magnesium, Dissolved	**26500**	ug/L	1000	32.8	1	11/28/23 16:28	11/29/23 11:41	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	11/28/23 16:28	11/29/23 11:41	7439-98-7	
Potassium, Dissolved	**1080**	ug/L	1000	120	1	11/28/23 16:28	11/29/23 11:41	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**29.8**	ug/L	10.0	2.3	1	11/25/23 10:31	11/28/23 23:01	7429-90-5	
Arsenic	ND	ug/L	1.0	0.075	1	11/25/23 10:31	11/28/23 23:01	7440-38-2	
Barium	**77.3**	ug/L	1.0	0.077	1	11/25/23 10:31	11/28/23 23:01	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/25/23 10:31	11/28/23 23:01	7440-48-4	
Manganese	**3.7**	ug/L	1.0	0.17	1	11/25/23 10:31	11/28/23 23:01	7439-96-5	
Selenium	**1.7**	ug/L	1.0	0.20	1	11/25/23 10:31	11/28/23 23:01	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	11/22/23 07:28	11/27/23 23:34	7429-90-5	
Manganese, Dissolved	ND	ug/L	1.0	0.17	1	11/22/23 07:28	11/27/23 23:34	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

Sample: AP-10B **Lab ID: 50359710001** Collected: 11/14/23 11:40 Received: 11/15/23 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**332**	mg/L	10.0	10.0	1		11/18/23 03:46		
Alkalinity,Bicarbonate (CaCO3)	**332**	mg/L	10.0	10.0	1		11/18/23 03:46		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/18/23 03:46		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**410**	mg/L	10.0	10.0	1		11/20/23 12:41		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		11/30/23 15:53		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/16/23 12:47	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/16/23 14:41	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**4.4**	mg/L	0.10	0.011	1		11/16/23 02:47	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/16/23 02:47	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/30/23 09:30	12/01/23 07:20		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.24	1		11/30/23 14:49	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.24	1		11/30/23 23:51		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

Sample: AP-10I **Lab ID: 50359710002** Collected: 11/14/23 14:20 Received: 11/15/23 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**2.5**	mg/L	0.050	0.0090	1		12/01/23 11:56	24959-67-9	
Chloride	**103**	mg/L	2.5	0.67	10		12/01/23 12:14	16887-00-6	
Fluoride	**0.14**	mg/L	0.10	0.017	1		12/01/23 11:56	16984-48-8	
Sulfate	**769**	mg/L	25.0	19.0	100		12/01/23 12:33	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**12100**	ug/L	100	11.4	1	11/22/23 15:51	11/30/23 11:24	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/22/23 15:51	11/30/23 11:24	7440-43-9	
Calcium	**342000**	ug/L	2000	113	2	11/22/23 15:51	11/30/23 12:18	7440-70-2	
Iron	**5670**	ug/L	100	18.1	1	11/22/23 15:51	11/30/23 11:24	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/22/23 15:51	11/30/23 11:24	7439-92-1	
Lithium	**20.5**	ug/L	20.0	5.1	1	11/22/23 15:51	11/30/23 11:24	7439-93-2	
Magnesium	**47500**	ug/L	1000	32.8	1	11/22/23 15:51	11/30/23 11:24	7439-95-4	
Molybdenum	**113**	ug/L	10.0	1.1	1	11/22/23 15:51	11/30/23 11:24	7439-98-7	
Potassium	**9540**	ug/L	1000	120	1	11/22/23 15:51	11/30/23 11:24	7440-09-7	
Silica	**13500**	ug/L	450		1	11/22/23 15:51	11/30/23 11:24	7631-86-9	N2
Sodium	**53400**	ug/L	1000	48.2	1	11/22/23 15:51	11/30/23 11:24	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**11700**	ug/L	100	11.4	1	11/28/23 16:28	11/29/23 11:51	7440-42-8	
Iron, Dissolved	**5210**	ug/L	100	18.1	1	11/28/23 16:28	11/29/23 11:51	7439-89-6	
Lithium, Dissolved	**21.2**	ug/L	20.0	5.1	1	11/28/23 16:28	11/29/23 11:51	7439-93-2	
Magnesium, Dissolved	**45300**	ug/L	1000	32.8	1	11/28/23 16:28	11/29/23 11:51	7439-95-4	
Molybdenum, Dissolved	**110**	ug/L	10.0	1.1	1	11/28/23 16:28	11/29/23 11:51	7439-98-7	
Potassium, Dissolved	**9350**	ug/L	1000	120	1	11/28/23 16:28	11/29/23 11:51	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**48.9**	ug/L	10.0	2.3	1	11/25/23 10:31	11/28/23 23:25	7429-90-5	
Arsenic	ND	ug/L	1.0	0.075	1	11/25/23 10:31	11/28/23 23:25	7440-38-2	
Barium	**76.7**	ug/L	1.0	0.077	1	11/25/23 10:31	11/28/23 23:25	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/25/23 10:31	11/28/23 23:25	7440-48-4	
Manganese	**2800**	ug/L	20.0	3.4	20	11/25/23 10:31	11/29/23 20:14	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	11/25/23 10:31	11/28/23 23:25	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	11/22/23 07:28	11/28/23 17:38	7429-90-5	
Manganese, Dissolved	**2860**	ug/L	20.0	3.4	20	11/22/23 07:28	11/28/23 10:26	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

Sample: AP-10I **Lab ID: 50359710002** Collected: 11/14/23 14:20 Received: 11/15/23 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**261**	mg/L	10.0	10.0	1		11/18/23 03:46		
Alkalinity,Bicarbonate (CaCO3)	**261**	mg/L	10.0	10.0	1		11/18/23 03:46		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/18/23 03:46		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1500**	mg/L	20.0	20.0	1		11/20/23 12:41		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.0**	Std. Units	0.10	0.10	1		11/30/23 15:54		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/16/23 12:47	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**1.8**	mg/L	0.20	0.035	1		11/16/23 15:31	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/16/23 04:33	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/16/23 04:33	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.42**	mg/L	0.15	0.15	1	11/30/23 09:30	12/01/23 07:22		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.5**	mg/L	1.0	0.24	1		11/30/23 16:39	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.6**	mg/L	1.0	0.24	1		12/01/23 01:36		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

QC Batch: 764396
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359710001, 50359710002

METHOD BLANK: 3503819 Matrix: Water
Associated Lab Samples: 50359710001, 50359710002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	12/01/23 22:21	
Chloride	mg/L	ND	0.25	0.067	12/01/23 22:21	
Fluoride	mg/L	ND	0.10	0.017	12/01/23 22:21	
Sulfate	mg/L	ND	0.25	0.19	12/01/23 22:21	

LABORATORY CONTROL SAMPLE: 3503820

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.95	95	80-120	
Chloride	mg/L	2.5	2.4	94	80-120	
Fluoride	mg/L	1	0.98	98	80-120	
Sulfate	mg/L	5	4.8	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503821 3503822

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	0.067	1	1	1.0	1.0	94	95	80-120	0	15	
Chloride	mg/L	5.6	2.5	2.5	7.8	7.7	87	87	80-120	0	15	
Fluoride	mg/L	0.12	1	1	1.1	1.2	102	103	80-120	1	15	
Sulfate	mg/L	44.2	50	50	92.4	91.5	96	95	80-120	1	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

QC Batch: 764428
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359710001, 50359710002

METHOD BLANK: 3503886 Matrix: Water
Associated Lab Samples: 50359710001, 50359710002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	11.4	11/30/23 10:46	
Cadmium	ug/L	ND	2.0	0.74	11/30/23 10:46	
Calcium	ug/L	ND	1000	56.7	11/30/23 10:46	
Iron	ug/L	ND	100	18.1	11/30/23 10:46	
Lead	ug/L	ND	10.0	4.0	11/30/23 10:46	
Lithium	ug/L	ND	20.0	5.1	11/30/23 10:46	
Magnesium	ug/L	ND	1000	32.8	11/30/23 10:46	
Molybdenum	ug/L	ND	10.0	1.1	11/30/23 10:46	
Potassium	ug/L	ND	1000	120	11/30/23 10:46	
Silica	ug/L	ND	450		11/30/23 10:46	N2
Sodium	ug/L	ND	1000	48.2	11/30/23 10:46	

LABORATORY CONTROL SAMPLE: 3503887

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	953	95	80-120	
Cadmium	ug/L	1000	948	95	80-120	
Calcium	ug/L	10000	9940	99	80-120	
Iron	ug/L	10000	10000	100	80-120	
Lead	ug/L	1000	903	90	80-120	
Lithium	ug/L	1000	1010	101	80-120	
Magnesium	ug/L	10000	9710	97	80-120	
Molybdenum	ug/L	1000	1010	101	80-120	
Potassium	ug/L	10000	9600	96	80-120	
Silica	ug/L	10700	10200	95	80-120	N2
Sodium	ug/L	10000	9510	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503888 3503889

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	788	1000	1000	1730	1770	94	98	75-125	2	20	
Cadmium	ug/L	ND	1000	1000	925	951	93	95	75-125	3	20	
Calcium	ug/L	104000	10000	10000	109000	111000	50	69	75-125	2	20	P6
Iron	ug/L	145	10000	10000	9820	10100	97	99	75-125	3	20	
Lead	ug/L	ND	1000	1000	862	884	86	88	75-125	3	20	
Lithium	ug/L	ND	1000	1000	990	1020	99	102	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503888 3503889

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Magnesium	ug/L	27200	10000	10000	35500	36000	82	88	75-125	2	20	
Molybdenum	ug/L	ND	1000	1000	986	1010	99	101	75-125	3	20	
Potassium	ug/L	1050	10000	10000	10400	10700	93	96	75-125	3	20	
Silica	ug/L	11200	10700	10700	20900	21300	91	95	75-125	2	20	N2
Sodium	ug/L	17700	10000	10000	26300	27000	86	93	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

QC Batch: 764934
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359710001, 50359710002

METHOD BLANK: 3505786 Matrix: Water
Associated Lab Samples: 50359710001, 50359710002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	11.4	11/29/23 11:24	
Iron, Dissolved	ug/L	ND	100	18.1	11/29/23 11:24	
Lithium, Dissolved	ug/L	ND	20.0	5.1	11/29/23 11:24	
Magnesium, Dissolved	ug/L	ND	1000	32.8	11/29/23 11:24	
Molybdenum, Dissolved	ug/L	ND	10.0	1.1	11/29/23 11:24	
Potassium, Dissolved	ug/L	ND	1000	120	11/29/23 11:24	

LABORATORY CONTROL SAMPLE: 3505787

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	923	92	80-120	
Iron, Dissolved	ug/L	10000	9610	96	80-120	
Lithium, Dissolved	ug/L	1000	969	97	80-120	
Magnesium, Dissolved	ug/L	10000	9360	94	80-120	
Molybdenum, Dissolved	ug/L	1000	972	97	80-120	
Potassium, Dissolved	ug/L	10000	9570	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3505788 3505789

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	778	1000	1000	1780	1760	100	98	75-125	1	20	
Iron, Dissolved	ug/L	ND	10000	10000	9810	9770	98	98	75-125	0	20	
Lithium, Dissolved	ug/L	ND	1000	1000	994	992	99	99	75-125	0	20	
Magnesium, Dissolved	ug/L	26500	10000	10000	35900	35700	94	92	75-125	1	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1020	1020	102	102	75-125	1	20	
Potassium, Dissolved	ug/L	1080	10000	10000	10900	10900	98	98	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

QC Batch: 764636
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359710001, 50359710002

METHOD BLANK: 3504844 Matrix: Water
Associated Lab Samples: 50359710001, 50359710002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	2.3	11/28/23 20:46	
Arsenic	ug/L	ND	1.0	0.075	11/28/23 20:46	
Barium	ug/L	ND	1.0	0.077	11/28/23 20:46	
Cobalt	ug/L	ND	1.0	0.046	11/28/23 20:46	
Manganese	ug/L	ND	1.0	0.17	11/28/23 20:46	
Selenium	ug/L	ND	1.0	0.20	11/28/23 20:46	

LABORATORY CONTROL SAMPLE: 3504845

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	403	101	80-120	
Arsenic	ug/L	40	39.6	99	80-120	
Barium	ug/L	40	40.5	101	80-120	
Cobalt	ug/L	40	42.6	106	80-120	
Manganese	ug/L	40	42.5	106	80-120	
Selenium	ug/L	40	40.6	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3504846 3504847

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	29.8	400	400	436	437	101	102	75-125	0	20	
Arsenic	ug/L	ND	40	40	40.2	39.8	100	99	75-125	1	20	
Barium	ug/L	77.3	40	40	120	119	107	105	75-125	1	20	
Cobalt	ug/L	ND	40	40	40.6	40.9	101	102	75-125	1	20	
Manganese	ug/L	3.7	40	40	44.3	44.7	102	102	75-125	1	20	
Selenium	ug/L	1.7	40	40	41.2	41.6	99	100	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

QC Batch: 764330
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359710001, 50359710002

METHOD BLANK: 3503429 Matrix: Water
Associated Lab Samples: 50359710001, 50359710002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.3	11/27/23 22:57	
Manganese, Dissolved	ug/L	ND	1.0	0.17	11/27/23 22:57	

LABORATORY CONTROL SAMPLE: 3503430

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	400	100	80-120	
Manganese, Dissolved	ug/L	40	40.7	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503431 3503432

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	394	397	98	99	75-125	1	20	
Manganese, Dissolved	ug/L	ND	40	40	40.4	40.8	100	101	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

QC Batch: 763745
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359710001, 50359710002

METHOD BLANK: 3501092 Matrix: Water
Associated Lab Samples: 50359710001, 50359710002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/18/23 03:46	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/18/23 03:46	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/18/23 03:46	

LABORATORY CONTROL SAMPLE: 3501093

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.8	104	90-110	

SAMPLE DUPLICATE: 3501094

Parameter	Units	50359710001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	332	340	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	332	340	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3501095

Parameter	Units	50359760005 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	360	367	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	360	367	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

QC Batch: 763926
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359710001, 50359710002

METHOD BLANK: 3501949 Matrix: Water
Associated Lab Samples: 50359710001, 50359710002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/20/23 12:40	

LABORATORY CONTROL SAMPLE: 3501950

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	281	94	80-120	

SAMPLE DUPLICATE: 3501951

Parameter	Units	50359710001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	410	403	2	10	

SAMPLE DUPLICATE: 3501952

Parameter	Units	50359713005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2610	2590	1	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

QC Batch: 765649
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359710001, 50359710002

SAMPLE DUPLICATE: 3508607

Parameter	Units	50359671006 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.0	8.0	1	2	H3

SAMPLE DUPLICATE: 3508608

Parameter	Units	50359710001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.3	0	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

QC Batch: 763324
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359710001, 50359710002

METHOD BLANK: 3498707 Matrix: Water
Associated Lab Samples: 50359710001, 50359710002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/16/23 12:47	

LABORATORY CONTROL SAMPLE: 3498708

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498709 3498710

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.52	0.53	103	105	90-110	2	20	

MATRIX SPIKE SAMPLE: 3498711

Parameter	Units	50359712004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.32	61	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

QC Batch: 763334
QC Batch Method: HACH 8146
Analysis Method: HACH 8146
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359710001

METHOD BLANK: 3498763 Matrix: Water
Associated Lab Samples: 50359710001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/16/23 14:33	H3,N2

LABORATORY CONTROL SAMPLE: 3498764

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	0.98	98	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498765 3498766

Parameter	Units	50359566001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.1	105	104	90-110	1	20	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498767 3498768

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.0	1.1	102	105	90-110	3	20	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

QC Batch: 763335
QC Batch Method: HACH 8146
Analysis Method: HACH 8146
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50359710002

METHOD BLANK: 3498769 Matrix: Water
Associated Lab Samples: 50359710002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/16/23 15:28	H3,N2

LABORATORY CONTROL SAMPLE: 3498770

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	0.99	99	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498771 3498772

Parameter	Units	50359760001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	1.6	5	5	6.5	6.5	99	99	90-110	0	20	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498773 3498774

Parameter	Units	50359760005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	1.9	5	5	6.9	6.9	99	99	90-110	0	20	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

QC Batch: 763232
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359710001

METHOD BLANK: 3498304 Matrix: Water
Associated Lab Samples: 50359710001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/16/23 02:02	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/16/23 02:02	

LABORATORY CONTROL SAMPLE: 3498305

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	103	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	104	90-110	

MATRIX SPIKE SAMPLE: 3498306

Parameter	Units	50359702002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.0	103	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	104	90-110	

MATRIX SPIKE SAMPLE: 3498307

Parameter	Units	50359710001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	4.4	5	9.6	106	90-110	
Nitrogen, Nitrite	mg/L	ND	5	5.2	104	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

QC Batch: 763235
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359710002

METHOD BLANK: 3498317 Matrix: Water
Associated Lab Samples: 50359710002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/16/23 02:56	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/16/23 02:56	

LABORATORY CONTROL SAMPLE: 3498318

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	102	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	104	90-110	

MATRIX SPIKE SAMPLE: 3498319

Parameter	Units	50359713001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	4.7	5	10.1	108	90-110	
Nitrogen, Nitrite	mg/L	ND	5	5.2	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498320 3498321

Parameter	Units	50359701002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	0.57	1	1	1.6	1.6	107	108	90-110	0	20	
Nitrogen, Nitrite	mg/L	0.045J	1	1	1.1	1.1	106	106	90-110	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

QC Batch: 765488
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359710001, 50359710002

METHOD BLANK: 3507961 Matrix: Water
Associated Lab Samples: 50359710001, 50359710002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	12/01/23 07:06	

LABORATORY CONTROL SAMPLE: 3507962

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3507963 3507964

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.6	1.6				3		

MATRIX SPIKE SAMPLE: 3507965

Parameter	Units	50359693006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	ND		1.5			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

QC Batch: 765277
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359710001, 50359710002

METHOD BLANK: 3507089 Matrix: Water
Associated Lab Samples: 50359710001, 50359710002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	11/30/23 10:57	

LABORATORY CONTROL SAMPLE: 3507090

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.7	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3507091 3507092

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	ND	10	10	9.8	10.3	93	98	80-120	5	20	

MATRIX SPIKE SAMPLE: 3507093

Parameter	Units	50359710002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.5	10	11.2	97	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

QC Batch: 765508
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359710001, 50359710002

METHOD BLANK: 3508050 Matrix: Water
Associated Lab Samples: 50359710001, 50359710002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	11/30/23 22:39	

LABORATORY CONTROL SAMPLE: 3508051

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.6	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3508052 3508053

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	10	10	10.3	9.8	96	91	80-120	5	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3508054 3508055

Parameter	Units	50359760001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	3.2	10	10	12.8	12.8	96	96	80-120	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

Sample: AP-10B **Lab ID: 50359710001** Collected: 11/14/23 11:40 Received: 11/15/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.122 ± 0.338 (0.655) C:NA T:93%**	pCi/L	12/09/23 14:11	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.849 ± 0.429 (0.748) C:88% T:78%**	pCi/L	12/05/23 15:28	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.971 ± 0.767 (1.40)**	pCi/L	12/11/23 16:18	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

Sample: AP-10I **Lab ID: 50359710002** Collected: 11/14/23 14:20 Received: 11/15/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.626 ± 0.844 (1.42) C:NA T:83%**	pCi/L	12/09/23 14:11	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.05 ± 0.433 (0.662) C:83% T:84%**	pCi/L	12/05/23 15:28	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.68 ± 1.28 (2.08)**	pCi/L	12/11/23 16:18	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

Sample: AP-10B MS **Lab ID: 50359710003** Collected: 11/14/23 11:40 Received: 11/15/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**112.78 %REC ± NA (NA) C:NA T:NA**	pCi/L	12/09/23 14:11	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**68.80% REC ± NA (NA) C:NA T:NA**	pCi/L	12/05/23 15:28	15262-20-1	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

Sample: AP-10B MSD **Lab ID: 50359710004** Collected: 11/14/23 11:40 Received: 11/15/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**83.64 %REC 29.68RPD ± NA (NA) C:NA T:NA**	pCi/L	12/09/23 14:11	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**74.73% REC 8.26 RPD ± NA (NA) C:NA T:NA**	pCi/L	12/05/23 15:29	15262-20-1	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

QC Batch: 631045
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359710001, 50359710002, 50359710003, 50359710004

METHOD BLANK: 3076793 Matrix: Water
Associated Lab Samples: 50359710001, 50359710002, 50359710003, 50359710004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.150 ± 0.294 (0.537) C:NA T:108%	pCi/L	12/09/23 13:46	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

QC Batch: 631047
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359710001, 50359710002, 50359710003, 50359710004

METHOD BLANK: 3076796 Matrix: Water
Associated Lab Samples: 50359710001, 50359710002, 50359710003, 50359710004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.321 ± 0.314 (0.640) C:76% T:84%	pCi/L	12/05/23 12:05	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359710

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359710001	**AP-10B**	EPA 9056	764396		
50359710002	**AP-10I**	EPA 9056	764396		
50359710001	**AP-10B**	EPA 3010	764428	EPA 6010	765553
50359710002	**AP-10I**	EPA 3010	764428	EPA 6010	765553
50359710001	**AP-10B**	EPA 3010	764934	EPA 6010	765308
50359710002	**AP-10I**	EPA 3010	764934	EPA 6010	765308
50359710001	**AP-10B**	EPA 200.2	764636	EPA 6020	764771
50359710002	**AP-10I**	EPA 200.2	764636	EPA 6020	764771
50359710001	**AP-10B**	EPA 200.2	764330	EPA 6020	764576
50359710002	**AP-10I**	EPA 200.2	764330	EPA 6020	764576
50359710001	**AP-10B**	EPA 903.1	631045		
50359710002	**AP-10I**	EPA 903.1	631045		
50359710003	**AP-10B MS**	EPA 903.1	631045		
50359710004	**AP-10B MSD**	EPA 903.1	631045		
50359710001	**AP-10B**	EPA 904.0	631047		
50359710002	**AP-10I**	EPA 904.0	631047		
50359710003	**AP-10B MS**	EPA 904.0	631047		
50359710004	**AP-10B MSD**	EPA 904.0	631047		
50359710001	**AP-10B**	Total Radium Calculation	635231		
50359710002	**AP-10I**	Total Radium Calculation	635231		
50359710001	**AP-10B**	SM 2320B	763745		
50359710002	**AP-10I**	SM 2320B	763745		
50359710001	**AP-10B**	SM 2540C	763926		
50359710002	**AP-10I**	SM 2540C	763926		
50359710001	**AP-10B**	SM 4500-H+B	765649		
50359710002	**AP-10I**	SM 4500-H+B	765649		
50359710001	**AP-10B**	SM 4500-S2-D	763324		
50359710002	**AP-10I**	SM 4500-S2-D	763324		
50359710001	**AP-10B**	HACH 8146	763334		
50359710002	**AP-10I**	HACH 8146	763335		
50359710001	**AP-10B**	EPA 353.2	763232		
50359710002	**AP-10I**	EPA 353.2	763235		
50359710001	**AP-10B**	EPA 365.1	765488	EPA 365.1	765742
50359710002	**AP-10I**	EPA 365.1	765488	EPA 365.1	765742
50359710001	**AP-10B**	SM 5310C	765277		
50359710002	**AP-10I**	SM 5310C	765277		
50359710001	**AP-10B**	SM 5310C	765508		
50359710002	**AP-10I**	SM 5310C	765508		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical®
WWW.PACELABS.COM

CHAIN-O[illegible]ent

The Chain-of-C[illegible]mpleted accurately.

WO# : 50359710

50359710

Page : Of

Section A
Required Client Information:

Company:	Atlas Indianapolis
Address:	7988 Centerpoint Drive Suite 100
	Indianapolis, IN 46256
Email:	mark.breting@oneatlas.com
Phone:	(317)579-4082 Fax:
Requested Due Date:	

Section B
Required Project Information:

Report To:	Mark Breting
Copy To:	
Purchase Order #:	
Project Name:	Petersburg P4R3 Nov 2023
Project #:	

	Accounts Payable - Paula Sedam
Company Name:	Atlas Indianapolis
Address:	
Pace Quote:	
Pace Project Manager:	Will Statz
Pace Profile #:	10498/53

Regulatory Agency
State / Location
IN

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test (Y/N)	TDS/ NO2, NO3 Wet	(Br, Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered** (Y)	Alkalinity*, Ferrous Iron, pH	TOC by 5310C	DOC by 5310C (Y)	Sulfide	Phosphate	Rad-226/228 + Sum			Residual Chlorine (Y/N)	
1	AP-10B	WT	G			11-14	1140		14	✓	✓	✓		✓					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				001
2	AP-10 I	WT	G			11-14	1420		14	✓	✓	✓		✓					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				002
3	MS 5	WT	G			11-14	1140		11	✓	✓	✓		✓					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				003
4	MSD 5	WT	G			11-14	11:40		11	✓	✓	✓		✓					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				004
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
* Metals: 6010 (B, Cd, Fe, Pb, Mo, Ca, Mg, Na, K, Li, sila) (11)	Hayley Torres	11-14-23	15:00	Jay Williams	11-14	7.45 AM				
6020 (Al, Mn, Co, As, Se, Ba) (6)	Jay Williams	11-15/23	10.25 AM	[signature] / PACE	11/15/23	1025	2.6	Y	Y	Y
** Dissolved FF 6010 (B, Fe, Mo, Mg, K, Li) (6) FF 6020 (Al, Mn) (2)										
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Mohammed Bazlouit

SIGNATURE of SAMPLER: [signature]

DATE Signed: 11-14-23

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: TW 11/15/23 1240

1. **Courier:** ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D (E) F G H

4. **Cooler Temperature(s):** 2.6/2.6 | 2.2/2.2 | | |

(Initial/Corrected) **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**

5. **Packing Material:** ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		/	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	/		
Short Hold Time Analysis (48 hours or less)? **Analysis:** NO3/NO2	/					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A
Rush TAT Requested (4 days or less):		/	Residual Chlorine Check (Total/Amenable/Free Cyanide)			/
Custody Signatures Present?	/		Headspace Wisconsin Sulfide?			/
Containers Intact?:	/		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent /
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	/		Trip Blank Present?		/	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			/

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC									OTHER						Preservation			
			MeOH (only) SBS DI																											Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
																													Red	Yellow	Green	Black
COC Line Item	WGFU	WGKU BG1U	R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
1												3	3			6	3	6	3	3	3		3					WT	✓	✓		✓
2												1	1			2	1	2	1	1	1		~~2~~ 1					WT	✓	✓		✓
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 08, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 15, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50359712001	**MW-45I**	Water	11/14/23 10:40	11/15/23 10:25
50359712002	**MW-45A**	Water	11/14/23 14:00	11/15/23 10:25
50359712003	**MW-42A**	Water	11/14/23 12:35	11/15/23 10:25
50359712004	**MW-43B**	Water	11/14/23 11:00	11/15/23 10:25

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50359712001	**MW-45I**	EPA 9056	ADM	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359712002	**MW-45A**	EPA 9056	ADM	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359712003	**MW-42A**	EPA 9056	ADM	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	JPK	6	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	CAW	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359712004	**MW-43B**	EPA 9056	ADM	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359712001	**MW-45I**					
EPA 9056	Bromide	0.084	mg/L	0.050	12/02/23 04:25	
EPA 9056	Chloride	7.0	mg/L	0.25	12/02/23 04:25	
EPA 9056	Fluoride	0.19	mg/L	0.10	12/02/23 04:25	
EPA 9056	Sulfate	380	mg/L	2.5	12/02/23 04:43	
EPA 6010	Boron	363	ug/L	100	11/29/23 10:47	
EPA 6010	Calcium	188000	ug/L	1000	11/29/23 10:47	
EPA 6010	Iron	7150	ug/L	100	11/29/23 10:47	
EPA 6010	Magnesium	54600	ug/L	1000	11/29/23 10:47	
EPA 6010	Silica	19700	ug/L	450	11/29/23 10:47	N2
EPA 6010	Sodium	7100	ug/L	1000	11/29/23 10:47	
EPA 6010	Boron, Dissolved	385	ug/L	100	11/28/23 23:09	
EPA 6010	Iron, Dissolved	7040	ug/L	100	11/28/23 23:09	
EPA 6010	Magnesium, Dissolved	58400	ug/L	1000	11/28/23 23:09	
EPA 6020	Aluminum	159	ug/L	10.0	11/28/23 23:28	
EPA 6020	Arsenic	2.8	ug/L	1.0	11/28/23 23:28	
EPA 6020	Barium	76.2	ug/L	1.0	11/28/23 23:28	
EPA 6020	Cobalt	1.2	ug/L	1.0	11/28/23 23:28	
EPA 6020	Manganese	751	ug/L	10.0	11/29/23 20:17	
EPA 6020	Manganese, Dissolved	762	ug/L	5.0	11/28/23 10:29	
EPA 903.1	Radium-226	0.303 ± 0.665 (1.20) C:NA T:86%	pCi/L		12/09/23 13:58	
EPA 904.0	Radium-228	0.309 ± 0.332 (0.689) C:78% T:78%	pCi/L		12/05/23 12:07	
Total Radium Calculation	Total Radium	0.612 ± 0.997 (1.89)	pCi/L		12/11/23 16:18	
SM 2320B	Alkalinity, Total as CaCO3	315	mg/L	10.0	11/18/23 03:46	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	315	mg/L	10.0	11/18/23 03:46	
SM 2540C	Total Dissolved Solids	848	mg/L	10.0	11/20/23 12:41	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	11/30/23 15:55	H3
HACH 8146	Iron, Ferrous	1.5	mg/L	0.20	11/16/23 14:40	H3,N2
EPA 365.1	Phosphate as P04	0.69	mg/L	0.15	12/01/23 07:23	
SM 5310C	Dissolved Organic Carbon	1.4	mg/L	1.0	12/01/23 02:02	
50359712002	**MW-45A**					
EPA 9056	Bromide	0.074	mg/L	0.050	12/02/23 05:38	
EPA 9056	Chloride	7.0	mg/L	0.25	12/02/23 05:38	
EPA 9056	Fluoride	0.55	mg/L	0.10	12/02/23 05:38	
EPA 9056	Sulfate	387	mg/L	2.5	12/02/23 05:57	
EPA 6010	Boron	659	ug/L	100	11/29/23 10:48	
EPA 6010	Calcium	183000	ug/L	1000	11/29/23 10:48	
EPA 6010	Iron	9470	ug/L	100	11/29/23 10:48	
EPA 6010	Lithium	21.0	ug/L	20.0	11/29/23 10:48	
EPA 6010	Magnesium	56300	ug/L	1000	11/29/23 10:48	
EPA 6010	Potassium	1310	ug/L	1000	11/29/23 10:48	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359712002	**MW-45A**					
EPA 6010	Silica	23500	ug/L	450	11/29/23 10:48	N2
EPA 6010	Sodium	8350	ug/L	1000	11/29/23 10:48	
EPA 6010	Boron, Dissolved	713	ug/L	100	11/28/23 23:10	
EPA 6010	Iron, Dissolved	8490	ug/L	100	11/28/23 23:10	
EPA 6010	Lithium, Dissolved	21.1	ug/L	20.0	11/28/23 23:10	
EPA 6010	Magnesium, Dissolved	61100	ug/L	1000	11/28/23 23:10	
EPA 6010	Potassium, Dissolved	1190	ug/L	1000	11/28/23 23:10	
EPA 6020	Aluminum	417	ug/L	10.0	11/28/23 23:31	
EPA 6020	Arsenic	1.4	ug/L	1.0	11/28/23 23:31	
EPA 6020	Barium	45.8	ug/L	1.0	11/28/23 23:31	
EPA 6020	Manganese	437	ug/L	5.0	11/29/23 20:28	
EPA 6020	Manganese, Dissolved	421	ug/L	4.0	11/28/23 10:33	
EPA 903.1	Radium-226	0.0813 ± 0.797 (1.53) C:NA T:90%	pCi/L		12/09/23 13:58	
EPA 904.0	Radium-228	0.229 ± 0.392 (0.854) C:79% T:83%	pCi/L		12/05/23 15:27	
Total Radium Calculation	Total Radium	0.310 ± 1.19 (2.38)	pCi/L		12/11/23 16:18	
SM 2320B	Alkalinity, Total as CaCO3	317	mg/L	10.0	11/18/23 03:46	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	317	mg/L	10.0	11/18/23 03:46	
SM 2540C	Total Dissolved Solids	901	mg/L	10.0	11/20/23 12:42	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	11/30/23 15:58	H3
HACH 8146	Iron, Ferrous	1.7	mg/L	0.20	11/16/23 15:30	H3,N2
EPA 365.1	Phosphate as P04	0.43	mg/L	0.15	12/01/23 07:25	
SM 5310C	Total Organic Carbon	1.0	mg/L	1.0	11/30/23 17:50	
SM 5310C	Dissolved Organic Carbon	1.1	mg/L	1.0	12/01/23 02:27	
50359712003	**MW-42A**					
EPA 9056	Bromide	0.70	mg/L	0.050	12/02/23 06:52	
EPA 9056	Chloride	109	mg/L	2.5	12/02/23 07:10	
EPA 9056	Fluoride	0.11	mg/L	0.10	12/02/23 06:52	
EPA 9056	Sulfate	1710	mg/L	25.0	12/02/23 07:29	
EPA 6010	Boron	21300	ug/L	100	11/29/23 10:53	
EPA 6010	Calcium	625000	ug/L	5000	11/29/23 12:08	
EPA 6010	Iron	9260	ug/L	100	11/29/23 10:53	
EPA 6010	Magnesium	16600	ug/L	1000	11/29/23 10:53	
EPA 6010	Molybdenum	2350	ug/L	10.0	11/29/23 10:53	
EPA 6010	Potassium	30600	ug/L	1000	11/29/23 10:53	
EPA 6010	Silica	12800	ug/L	450	11/29/23 10:53	N2
EPA 6010	Sodium	37900	ug/L	1000	11/29/23 10:53	
EPA 6010	Boron, Dissolved	23000	ug/L	100	11/28/23 23:11	
EPA 6010	Iron, Dissolved	10100	ug/L	100	11/28/23 23:11	
EPA 6010	Magnesium, Dissolved	18000	ug/L	1000	11/28/23 23:11	
EPA 6010	Molybdenum, Dissolved	2480	ug/L	10.0	11/28/23 23:11	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359712003	**MW-42A**					
EPA 6010	Potassium, Dissolved	32900	ug/L	1000	11/28/23 23:11	
EPA 6020	Barium	33.6	ug/L	1.0	11/28/23 23:42	
EPA 6020	Manganese	2110	ug/L	20.0	11/29/23 20:31	
EPA 6020	Manganese, Dissolved	2260	ug/L	20.0	11/28/23 10:36	
EPA 903.1	Radium-226	0.231 ± 0.585 (1.09) C:NA T:90%	pCi/L		12/09/23 13:58	
EPA 904.0	Radium-228	1.58 ± 0.544 (0.757) C:80% T:83%	pCi/L		12/05/23 15:27	
Total Radium Calculation	Total Radium	1.81 ± 1.13 (1.85)	pCi/L		12/11/23 16:18	
SM 2320B	Alkalinity, Total as CaCO3	71.6	mg/L	10.0	11/18/23 03:46	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	71.6	mg/L	10.0	11/18/23 03:46	
SM 2540C	Total Dissolved Solids	2550	mg/L	20.0	11/20/23 12:42	
SM 4500-H+B	pH at 25 Degrees C	6.9	Std. Units	0.10	11/30/23 15:59	H3
HACH 8146	Iron, Ferrous	2.4	mg/L	1.0	11/16/23 15:29	H3,N2
EPA 365.1	Phosphate as P04	0.26	mg/L	0.15	12/01/23 07:26	
SM 5310C	Total Organic Carbon	1.4	mg/L	1.0	11/30/23 18:09	
SM 5310C	Dissolved Organic Carbon	1.7	mg/L	1.0	12/01/23 02:47	
50359712004	**MW-43B**					
EPA 9056	Bromide	0.37	mg/L	0.050	12/02/23 06:15	
EPA 9056	Chloride	47.2	mg/L	2.5	12/02/23 06:33	
EPA 9056	Sulfate	347	mg/L	2.5	12/02/23 06:33	
EPA 6010	Boron	1030	ug/L	100	11/29/23 10:55	
EPA 6010	Calcium	236000	ug/L	2000	11/29/23 12:09	
EPA 6010	Iron	214	ug/L	100	11/29/23 10:55	
EPA 6010	Magnesium	50700	ug/L	1000	11/29/23 10:55	
EPA 6010	Potassium	2020	ug/L	1000	11/29/23 10:55	
EPA 6010	Silica	15000	ug/L	450	11/29/23 10:55	N2
EPA 6010	Sodium	25400	ug/L	1000	11/29/23 10:55	
EPA 6010	Boron, Dissolved	1080	ug/L	100	11/28/23 23:13	
EPA 6010	Iron, Dissolved	174	ug/L	100	11/28/23 23:13	
EPA 6010	Magnesium, Dissolved	51900	ug/L	1000	11/28/23 23:13	
EPA 6010	Potassium, Dissolved	1970	ug/L	1000	11/28/23 23:13	
EPA 6020	Aluminum	20.0	ug/L	10.0	11/28/23 23:45	
EPA 6020	Barium	94.3	ug/L	1.0	11/28/23 23:45	
EPA 6020	Cobalt	3.4	ug/L	1.0	11/28/23 23:45	
EPA 6020	Manganese	1840	ug/L	20.0	11/29/23 20:34	
EPA 6020	Manganese, Dissolved	1920	ug/L	20.0	11/28/23 10:46	
EPA 903.1	Radium-226	1.20 ± 0.731 (0.861) C:NA T:95%	pCi/L		12/09/23 14:11	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359712004	**MW-43B**					
EPA 904.0	Radium-228	0.828 ± 0.422 (0.732) C:88% T:76%	pCi/L		12/05/23 15:27	
Total Radium Calculation	Total Radium	2.03 ± 1.15 (1.59)	pCi/L		12/11/23 16:18	
SM 2320B	Alkalinity, Total as CaCO3	465	mg/L	10.0	11/18/23 03:46	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	465	mg/L	10.0	11/18/23 03:46	
SM 2540C	Total Dissolved Solids	1010	mg/L	10.0	11/20/23 12:42	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	11/30/23 16:52	H3
SM 5310C	Total Organic Carbon	1.5	mg/L	1.0	11/30/23 18:35	
SM 5310C	Dissolved Organic Carbon	1.8	mg/L	1.0	12/01/23 03:13	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

Sample: MW-45I **Lab ID: 50359712001** Collected: 11/14/23 10:40 Received: 11/15/23 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.084**	mg/L	0.050	0.0090	1		12/02/23 04:25	24959-67-9	
Chloride	**7.0**	mg/L	0.25	0.067	1		12/02/23 04:25	16887-00-6	
Fluoride	**0.19**	mg/L	0.10	0.017	1		12/02/23 04:25	16984-48-8	
Sulfate	**380**	mg/L	2.5	1.9	10		12/02/23 04:43	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**363**	ug/L	100	11.4	1	11/22/23 21:40	11/29/23 10:47	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/22/23 21:40	11/29/23 10:47	7440-43-9	
Calcium	**188000**	ug/L	1000	56.7	1	11/22/23 21:40	11/29/23 10:47	7440-70-2	
Iron	**7150**	ug/L	100	18.1	1	11/22/23 21:40	11/29/23 10:47	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/22/23 21:40	11/29/23 10:47	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/22/23 21:40	11/29/23 10:47	7439-93-2	
Magnesium	**54600**	ug/L	1000	32.8	1	11/22/23 21:40	11/29/23 10:47	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	11/22/23 21:40	11/29/23 10:47	7439-98-7	
Potassium	ND	ug/L	1000	120	1	11/22/23 21:40	11/29/23 10:47	7440-09-7	
Silica	**19700**	ug/L	450		1	11/22/23 21:40	11/29/23 10:47	7631-86-9	N2
Sodium	**7100**	ug/L	1000	48.2	1	11/22/23 21:40	11/29/23 10:47	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**385**	ug/L	100	6.2	1	11/28/23 16:22	11/28/23 23:09	7440-42-8	
Iron, Dissolved	**7040**	ug/L	100	30.0	1	11/28/23 16:22	11/28/23 23:09	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/28/23 16:22	11/28/23 23:09	7439-93-2	
Magnesium, Dissolved	**58400**	ug/L	1000	33.6	1	11/28/23 16:22	11/28/23 23:09	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	11/28/23 16:22	11/28/23 23:09	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	97.8	1	11/28/23 16:22	11/28/23 23:09	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**159**	ug/L	10.0	2.3	1	11/25/23 10:31	11/28/23 23:28	7429-90-5	
Arsenic	**2.8**	ug/L	1.0	0.075	1	11/25/23 10:31	11/28/23 23:28	7440-38-2	
Barium	**76.2**	ug/L	1.0	0.077	1	11/25/23 10:31	11/28/23 23:28	7440-39-3	
Cobalt	**1.2**	ug/L	1.0	0.046	1	11/25/23 10:31	11/28/23 23:28	7440-48-4	
Manganese	**751**	ug/L	10.0	1.7	10	11/25/23 10:31	11/29/23 20:17	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	11/25/23 10:31	11/28/23 23:28	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	11/22/23 07:28	11/28/23 15:37	7429-90-5	
Manganese, Dissolved	**762**	ug/L	5.0	0.84	5	11/22/23 07:28	11/28/23 10:29	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

Sample: MW-45I **Lab ID: 50359712001** Collected: 11/14/23 10:40 Received: 11/15/23 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**315**	mg/L	10.0	10.0	1		11/18/23 03:46		
Alkalinity,Bicarbonate (CaCO3)	**315**	mg/L	10.0	10.0	1		11/18/23 03:46		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/18/23 03:46		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**848**	mg/L	10.0	10.0	1		11/20/23 12:41		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		11/30/23 15:55		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/16/23 12:47	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**1.5**	mg/L	0.20	0.035	1		11/16/23 14:40	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/16/23 02:32	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/16/23 02:32	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.69**	mg/L	0.15	0.15	1	11/30/23 09:30	12/01/23 07:23		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.24	1		11/30/23 17:24	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.4**	mg/L	1.0	0.24	1		12/01/23 02:02		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

Sample: MW-45A **Lab ID: 50359712002** Collected: 11/14/23 14:00 Received: 11/15/23 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.074**	mg/L	0.050	0.0090	1		12/02/23 05:38	24959-67-9	
Chloride	**7.0**	mg/L	0.25	0.067	1		12/02/23 05:38	16887-00-6	
Fluoride	**0.55**	mg/L	0.10	0.017	1		12/02/23 05:38	16984-48-8	
Sulfate	**387**	mg/L	2.5	1.9	10		12/02/23 05:57	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**659**	ug/L	100	11.4	1	11/22/23 21:40	11/29/23 10:48	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/22/23 21:40	11/29/23 10:48	7440-43-9	
Calcium	**183000**	ug/L	1000	56.7	1	11/22/23 21:40	11/29/23 10:48	7440-70-2	
Iron	**9470**	ug/L	100	18.1	1	11/22/23 21:40	11/29/23 10:48	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/22/23 21:40	11/29/23 10:48	7439-92-1	
Lithium	**21.0**	ug/L	20.0	5.1	1	11/22/23 21:40	11/29/23 10:48	7439-93-2	
Magnesium	**56300**	ug/L	1000	32.8	1	11/22/23 21:40	11/29/23 10:48	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	11/22/23 21:40	11/29/23 10:48	7439-98-7	
Potassium	**1310**	ug/L	1000	120	1	11/22/23 21:40	11/29/23 10:48	7440-09-7	
Silica	**23500**	ug/L	450		1	11/22/23 21:40	11/29/23 10:48	7631-86-9	N2
Sodium	**8350**	ug/L	1000	48.2	1	11/22/23 21:40	11/29/23 10:48	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**713**	ug/L	100	6.2	1	11/28/23 16:22	11/28/23 23:10	7440-42-8	
Iron, Dissolved	**8490**	ug/L	100	30.0	1	11/28/23 16:22	11/28/23 23:10	7439-89-6	
Lithium, Dissolved	**21.1**	ug/L	20.0	6.8	1	11/28/23 16:22	11/28/23 23:10	7439-93-2	
Magnesium, Dissolved	**61100**	ug/L	1000	33.6	1	11/28/23 16:22	11/28/23 23:10	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	11/28/23 16:22	11/28/23 23:10	7439-98-7	
Potassium, Dissolved	**1190**	ug/L	1000	97.8	1	11/28/23 16:22	11/28/23 23:10	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**417**	ug/L	10.0	2.3	1	11/25/23 10:31	11/28/23 23:31	7429-90-5	
Arsenic	**1.4**	ug/L	1.0	0.075	1	11/25/23 10:31	11/28/23 23:31	7440-38-2	
Barium	**45.8**	ug/L	1.0	0.077	1	11/25/23 10:31	11/28/23 23:31	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/25/23 10:31	11/28/23 23:31	7440-48-4	
Manganese	**437**	ug/L	5.0	0.84	5	11/25/23 10:31	11/29/23 20:28	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	11/25/23 10:31	11/28/23 23:31	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	11/22/23 07:28	11/28/23 15:42	7429-90-5	
Manganese, Dissolved	**421**	ug/L	4.0	0.67	4	11/22/23 07:28	11/28/23 10:33	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

Sample: MW-45A **Lab ID: 50359712002** Collected: 11/14/23 14:00 Received: 11/15/23 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**317**	mg/L	10.0	10.0	1		11/18/23 03:46		
Alkalinity,Bicarbonate (CaCO3)	**317**	mg/L	10.0	10.0	1		11/18/23 03:46		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/18/23 03:46		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**901**	mg/L	10.0	10.0	1		11/20/23 12:42		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		11/30/23 15:58		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/16/23 12:47	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**1.7**	mg/L	0.20	0.035	1		11/16/23 15:30	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/16/23 03:20	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/16/23 03:20	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.43**	mg/L	0.15	0.15	1	11/30/23 09:30	12/01/23 07:25		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.0**	mg/L	1.0	0.24	1		11/30/23 17:50	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.1**	mg/L	1.0	0.24	1		12/01/23 02:27		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

Sample: MW-42A **Lab ID: 50359712003** Collected: 11/14/23 12:35 Received: 11/15/23 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.70**	mg/L	0.050	0.0090	1		12/02/23 06:52	24959-67-9	
Chloride	**109**	mg/L	2.5	0.67	10		12/02/23 07:10	16887-00-6	
Fluoride	**0.11**	mg/L	0.10	0.017	1		12/02/23 06:52	16984-48-8	
Sulfate	**1710**	mg/L	25.0	19.0	100		12/02/23 07:29	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**21300**	ug/L	100	11.4	1	11/22/23 21:40	11/29/23 10:53	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/22/23 21:40	11/29/23 10:53	7440-43-9	
Calcium	**625000**	ug/L	5000	284	5	11/22/23 21:40	11/29/23 12:08	7440-70-2	
Iron	**9260**	ug/L	100	18.1	1	11/22/23 21:40	11/29/23 10:53	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/22/23 21:40	11/29/23 10:53	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/22/23 21:40	11/29/23 10:53	7439-93-2	
Magnesium	**16600**	ug/L	1000	32.8	1	11/22/23 21:40	11/29/23 10:53	7439-95-4	
Molybdenum	**2350**	ug/L	10.0	1.1	1	11/22/23 21:40	11/29/23 10:53	7439-98-7	
Potassium	**30600**	ug/L	1000	120	1	11/22/23 21:40	11/29/23 10:53	7440-09-7	
Silica	**12800**	ug/L	450		1	11/22/23 21:40	11/29/23 10:53	7631-86-9	N2
Sodium	**37900**	ug/L	1000	48.2	1	11/22/23 21:40	11/29/23 10:53	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**23000**	ug/L	100	6.2	1	11/28/23 16:22	11/28/23 23:11	7440-42-8	
Iron, Dissolved	**10100**	ug/L	100	30.0	1	11/28/23 16:22	11/28/23 23:11	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/28/23 16:22	11/28/23 23:11	7439-93-2	
Magnesium, Dissolved	**18000**	ug/L	1000	33.6	1	11/28/23 16:22	11/28/23 23:11	7439-95-4	
Molybdenum, Dissolved	**2480**	ug/L	10.0	0.78	1	11/28/23 16:22	11/28/23 23:11	7439-98-7	
Potassium, Dissolved	**32900**	ug/L	1000	97.8	1	11/28/23 16:22	11/28/23 23:11	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	2.3	1	11/25/23 10:31	11/28/23 23:42	7429-90-5	
Arsenic	ND	ug/L	1.0	0.075	1	11/25/23 10:31	11/28/23 23:42	7440-38-2	
Barium	**33.6**	ug/L	1.0	0.077	1	11/25/23 10:31	11/28/23 23:42	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/25/23 10:31	11/28/23 23:42	7440-48-4	
Manganese	**2110**	ug/L	20.0	3.4	20	11/25/23 10:31	11/29/23 20:31	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	11/25/23 10:31	11/28/23 23:42	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	20.0	4.7	2	11/22/23 07:28	11/29/23 12:18	7429-90-5	D3
Manganese, Dissolved	**2260**	ug/L	20.0	3.4	20	11/22/23 07:28	11/28/23 10:36	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

Sample: MW-42A **Lab ID: 50359712003** Collected: 11/14/23 12:35 Received: 11/15/23 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**71.6**	mg/L	10.0	10.0	1		11/18/23 03:46		
Alkalinity,Bicarbonate (CaCO3)	**71.6**	mg/L	10.0	10.0	1		11/18/23 03:46		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/18/23 03:46		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2550**	mg/L	20.0	20.0	1		11/20/23 12:42		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.9**	Std. Units	0.10	0.10	1		11/30/23 15:59		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/16/23 12:47	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**2.4**	mg/L	1.0	0.18	5		11/16/23 15:29	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/16/23 04:48	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/16/23 04:48	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.26**	mg/L	0.15	0.15	1	11/30/23 09:30	12/01/23 07:26		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.4**	mg/L	1.0	0.24	1		11/30/23 18:09	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.7**	mg/L	1.0	0.24	1		12/01/23 02:47		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

Sample: MW-43B **Lab ID: 50359712004** Collected: 11/14/23 11:00 Received: 11/15/23 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.37**	mg/L	0.050	0.0090	1		12/02/23 06:15	24959-67-9	
Chloride	**47.2**	mg/L	2.5	0.67	10		12/02/23 06:33	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		12/02/23 06:15	16984-48-8	
Sulfate	**347**	mg/L	2.5	1.9	10		12/02/23 06:33	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**1030**	ug/L	100	11.4	1	11/22/23 21:40	11/29/23 10:55	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/22/23 21:40	11/29/23 10:55	7440-43-9	
Calcium	**236000**	ug/L	2000	113	2	11/22/23 21:40	11/29/23 12:09	7440-70-2	
Iron	**214**	ug/L	100	18.1	1	11/22/23 21:40	11/29/23 10:55	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/22/23 21:40	11/29/23 10:55	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/22/23 21:40	11/29/23 10:55	7439-93-2	
Magnesium	**50700**	ug/L	1000	32.8	1	11/22/23 21:40	11/29/23 10:55	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	11/22/23 21:40	11/29/23 10:55	7439-98-7	
Potassium	**2020**	ug/L	1000	120	1	11/22/23 21:40	11/29/23 10:55	7440-09-7	
Silica	**15000**	ug/L	450		1	11/22/23 21:40	11/29/23 10:55	7631-86-9	N2
Sodium	**25400**	ug/L	1000	48.2	1	11/22/23 21:40	11/29/23 10:55	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1080**	ug/L	100	6.2	1	11/28/23 16:22	11/28/23 23:13	7440-42-8	
Iron, Dissolved	**174**	ug/L	100	30.0	1	11/28/23 16:22	11/28/23 23:13	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/28/23 16:22	11/28/23 23:13	7439-93-2	
Magnesium, Dissolved	**51900**	ug/L	1000	33.6	1	11/28/23 16:22	11/28/23 23:13	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	11/28/23 16:22	11/28/23 23:13	7439-98-7	
Potassium, Dissolved	**1970**	ug/L	1000	97.8	1	11/28/23 16:22	11/28/23 23:13	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**20.0**	ug/L	10.0	2.3	1	11/25/23 10:31	11/28/23 23:45	7429-90-5	
Arsenic	ND	ug/L	1.0	0.075	1	11/25/23 10:31	11/28/23 23:45	7440-38-2	
Barium	**94.3**	ug/L	1.0	0.077	1	11/25/23 10:31	11/28/23 23:45	7440-39-3	
Cobalt	**3.4**	ug/L	1.0	0.046	1	11/25/23 10:31	11/28/23 23:45	7440-48-4	
Manganese	**1840**	ug/L	20.0	3.4	20	11/25/23 10:31	11/29/23 20:34	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	11/25/23 10:31	11/28/23 23:45	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	11/22/23 07:28	11/28/23 16:56	7429-90-5	
Manganese, Dissolved	**1920**	ug/L	20.0	3.4	20	11/22/23 07:28	11/28/23 10:46	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

Sample: MW-43B **Lab ID: 50359712004** Collected: 11/14/23 11:00 Received: 11/15/23 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**465**	mg/L	10.0	10.0	1		11/18/23 03:46		
Alkalinity,Bicarbonate (CaCO3)	**465**	mg/L	10.0	10.0	1		11/18/23 03:46		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/18/23 03:46		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1010**	mg/L	10.0	10.0	1		11/20/23 12:42		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		11/30/23 16:52		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/16/23 12:47	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/16/23 14:41	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/16/23 02:39	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/16/23 02:39	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/30/23 09:30	12/01/23 07:27		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.5**	mg/L	1.0	0.24	1		11/30/23 18:35	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.8**	mg/L	1.0	0.24	1		12/01/23 03:13		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

QC Batch: 764395
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359712001, 50359712002, 50359712003, 50359712004

METHOD BLANK: 3503815 Matrix: Water
Associated Lab Samples: 50359712001, 50359712002, 50359712003, 50359712004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	12/01/23 10:02	
Chloride	mg/L	ND	0.25	0.067	12/01/23 10:02	
Fluoride	mg/L	ND	0.10	0.017	12/01/23 10:02	
Sulfate	mg/L	ND	0.25	0.19	12/01/23 10:02	

LABORATORY CONTROL SAMPLE: 3503816

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.97	97	80-120	
Chloride	mg/L	2.5	2.5	99	80-120	
Fluoride	mg/L	1	0.96	96	80-120	
Sulfate	mg/L	5	4.7	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503817 3503818

Parameter	Units	50359672003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	0.12	1	1	1.1	1.0	95	93	80-120	3	15	
Chloride	mg/L	30.2	25	25	53.7	53.7	94	94	80-120	0	15	
Fluoride	mg/L	0.62	1	1	1.6	1.6	99	99	80-120	1	15	
Sulfate	mg/L	24.6	5	5	28.6	28.5	80	77	80-120	0	15	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

QC Batch: 764429
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359712001, 50359712002, 50359712003, 50359712004

METHOD BLANK: 3503890 Matrix: Water
Associated Lab Samples: 50359712001, 50359712002, 50359712003, 50359712004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	11.4	11/29/23 10:45	
Cadmium	ug/L	ND	2.0	0.74	11/29/23 10:45	
Calcium	ug/L	ND	1000	56.7	11/29/23 10:45	
Iron	ug/L	ND	100	18.1	11/29/23 10:45	
Lead	ug/L	ND	10.0	4.0	11/29/23 10:45	
Lithium	ug/L	ND	20.0	5.1	11/29/23 10:45	
Magnesium	ug/L	ND	1000	32.8	11/29/23 10:45	
Molybdenum	ug/L	ND	10.0	1.1	11/29/23 10:45	
Potassium	ug/L	ND	1000	120	11/29/23 10:45	
Silica	ug/L	ND	450		11/29/23 10:45	N2
Sodium	ug/L	ND	1000	48.2	11/29/23 10:45	

LABORATORY CONTROL SAMPLE: 3503891

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	928	93	80-120	
Cadmium	ug/L	1000	919	92	80-120	
Calcium	ug/L	10000	9790	98	80-120	
Iron	ug/L	10000	9620	96	80-120	
Lead	ug/L	1000	880	88	80-120	
Lithium	ug/L	1000	976	98	80-120	
Magnesium	ug/L	10000	9380	94	80-120	
Molybdenum	ug/L	1000	975	98	80-120	
Potassium	ug/L	10000	9830	98	80-120	
Silica	ug/L	10700	10200	95	80-120	N2
Sodium	ug/L	10000	9580	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503892 3503893

Parameter	Units	50359670001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	4440	1000	1000	5350	5310	91	87	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	913	912	91	91	75-125	0	20	
Calcium	ug/L	148000	10000	10000	156000	154000	80	67	75-125	1	20	P6
Iron	ug/L	3230	10000	10000	12500	12400	93	92	75-125	1	20	
Lead	ug/L	ND	1000	1000	827	826	83	83	75-125	0	20	
Lithium	ug/L	58.4	1000	1000	976	984	92	93	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503892 3503893

Parameter	Units	50359670001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Magnesium	ug/L	43400	10000	10000	52100	51600	87	82	75-125	1	20	
Molybdenum	ug/L	164	1000	1000	1140	1140	98	97	75-125	0	20	
Potassium	ug/L	8680	10000	10000	17600	17800	89	91	75-125	1	20	
Silica	ug/L	12100	10700	10700	22300	22200	96	94	75-125	1	20	N2
Sodium	ug/L	115000	10000	10000	122000	124000	66	85	75-125	2	20	P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

QC Batch: 764933
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359712001, 50359712002, 50359712003, 50359712004

METHOD BLANK: 3505782 Matrix: Water
Associated Lab Samples: 50359712001, 50359712002, 50359712003, 50359712004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	11/28/23 22:36	
Iron, Dissolved	ug/L	ND	100	30.0	11/28/23 22:36	
Lithium, Dissolved	ug/L	ND	20.0	6.8	11/28/23 22:36	
Magnesium, Dissolved	ug/L	ND	1000	33.6	11/28/23 22:36	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	11/28/23 22:36	
Potassium, Dissolved	ug/L	ND	1000	97.8	11/28/23 22:36	

LABORATORY CONTROL SAMPLE: 3505783

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	972	97	80-120	
Iron, Dissolved	ug/L	10000	10200	102	80-120	
Lithium, Dissolved	ug/L	1000	1020	102	80-120	
Magnesium, Dissolved	ug/L	10000	9830	98	80-120	
Molybdenum, Dissolved	ug/L	1000	1020	102	80-120	
Potassium, Dissolved	ug/L	10000	9950	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3505784 3505785

Parameter	Units	50359634007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	ND	1000	1000	1040	1060	95	96	75-125	1	20	
Iron, Dissolved	ug/L	2.5 mg/L	10000	10000	12100	12200	96	97	75-125	1	20	
Lithium, Dissolved	ug/L	ND	1000	1000	967	977	96	97	75-125	1	20	
Magnesium, Dissolved	ug/L	37.3 mg/L	10000	10000	46600	47300	94	101	75-125	2	20	
Molybdenum, Dissolved	ug/L	0.032 mg/L	1000	1000	1010	1010	98	98	75-125	0	20	
Potassium, Dissolved	ug/L	1.4 mg/L	10000	10000	11000	11100	96	97	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

QC Batch: 764636
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359712001, 50359712002, 50359712003, 50359712004

METHOD BLANK: 3504844 Matrix: Water
Associated Lab Samples: 50359712001, 50359712002, 50359712003, 50359712004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	2.3	11/28/23 20:46	
Arsenic	ug/L	ND	1.0	0.075	11/28/23 20:46	
Barium	ug/L	ND	1.0	0.077	11/28/23 20:46	
Cobalt	ug/L	ND	1.0	0.046	11/28/23 20:46	
Manganese	ug/L	ND	1.0	0.17	11/28/23 20:46	
Selenium	ug/L	ND	1.0	0.20	11/28/23 20:46	

LABORATORY CONTROL SAMPLE: 3504845

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	403	101	80-120	
Arsenic	ug/L	40	39.6	99	80-120	
Barium	ug/L	40	40.5	101	80-120	
Cobalt	ug/L	40	42.6	106	80-120	
Manganese	ug/L	40	42.5	106	80-120	
Selenium	ug/L	40	40.6	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3504846 3504847

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	29.8	400	400	436	437	101	102	75-125	0	20	
Arsenic	ug/L	ND	40	40	40.2	39.8	100	99	75-125	1	20	
Barium	ug/L	77.3	40	40	120	119	107	105	75-125	1	20	
Cobalt	ug/L	ND	40	40	40.6	40.9	101	102	75-125	1	20	
Manganese	ug/L	3.7	40	40	44.3	44.7	102	102	75-125	1	20	
Selenium	ug/L	1.7	40	40	41.2	41.6	99	100	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

QC Batch: 764330
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359712001, 50359712002, 50359712003, 50359712004

METHOD BLANK: 3503429 Matrix: Water
Associated Lab Samples: 50359712001, 50359712002, 50359712003, 50359712004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.3	11/27/23 22:57	
Manganese, Dissolved	ug/L	ND	1.0	0.17	11/27/23 22:57	

LABORATORY CONTROL SAMPLE: 3503430

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	400	100	80-120	
Manganese, Dissolved	ug/L	40	40.7	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503431 3503432

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	394	397	98	99	75-125	1	20	
Manganese, Dissolved	ug/L	ND	40	40	40.4	40.8	100	101	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

QC Batch: 763745 | Analysis Method: SM 2320B
QC Batch Method: SM 2320B | Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359712001, 50359712002, 50359712003, 50359712004

METHOD BLANK: 3501092 Matrix: Water
Associated Lab Samples: 50359712001, 50359712002, 50359712003, 50359712004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/18/23 03:46	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/18/23 03:46	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/18/23 03:46	

LABORATORY CONTROL SAMPLE: 3501093

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.8	104	90-110	

SAMPLE DUPLICATE: 3501094

Parameter	Units	50359710001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	332	340	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	332	340	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3501095

Parameter	Units	50359760005 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	360	367	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	360	367	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

QC Batch: 763926
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359712001, 50359712002, 50359712003, 50359712004

METHOD BLANK: 3501949 Matrix: Water
Associated Lab Samples: 50359712001, 50359712002, 50359712003, 50359712004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/20/23 12:40	

LABORATORY CONTROL SAMPLE: 3501950

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	281	94	80-120	

SAMPLE DUPLICATE: 3501951

Parameter	Units	50359710001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	410	403	2	10	

SAMPLE DUPLICATE: 3501952

Parameter	Units	50359713005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2610	2590	1	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

QC Batch: 765649
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359712001, 50359712002, 50359712003

SAMPLE DUPLICATE: 3508607

Parameter	Units	50359671006 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.0	8.0	1	2	H3

SAMPLE DUPLICATE: 3508608

Parameter	Units	50359710001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.3	0	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

QC Batch: 765658
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50359712004

SAMPLE DUPLICATE: 3508633

Parameter	Units	50359712004 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.2	1	2	H3

SAMPLE DUPLICATE: 3508634

Parameter	Units	50359817010 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	5.6	5.7	2	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

QC Batch: 763324
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359712001, 50359712002, 50359712003, 50359712004

METHOD BLANK: 3498707 Matrix: Water
Associated Lab Samples: 50359712001, 50359712002, 50359712003, 50359712004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/16/23 12:47	

LABORATORY CONTROL SAMPLE: 3498708

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498709 3498710

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.52	0.53	103	105	90-110	2	20	

MATRIX SPIKE SAMPLE: 3498711

Parameter	Units	50359712004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.32	61	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

QC Batch: 763334
QC Batch Method: HACH 8146
Analysis Method: HACH 8146
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359712001, 50359712004

METHOD BLANK: 3498763 Matrix: Water
Associated Lab Samples: 50359712001, 50359712004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/16/23 14:33	H3,N2

LABORATORY CONTROL SAMPLE: 3498764

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	0.98	98	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498765 3498766

Parameter	Units	50359566001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.1	105	104	90-110	1	20	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498767 3498768

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.0	1.1	102	105	90-110	3	20	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

QC Batch: 763335
QC Batch Method: HACH 8146
Analysis Method: HACH 8146
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359712002, 50359712003

METHOD BLANK: 3498769 Matrix: Water
Associated Lab Samples: 50359712002, 50359712003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/16/23 15:28	H3,N2

LABORATORY CONTROL SAMPLE: 3498770

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	0.99	99	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498771 3498772

Parameter	Units	50359760001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	1.6	5	5	6.5	6.5	99	99	90-110	0	20	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498773 3498774

Parameter	Units	50359760005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	1.9	5	5	6.9	6.9	99	99	90-110	0	20	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

QC Batch: 763232
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359712001, 50359712004

METHOD BLANK: 3498304 Matrix: Water
Associated Lab Samples: 50359712001, 50359712004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/16/23 02:02	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/16/23 02:02	

LABORATORY CONTROL SAMPLE: 3498305

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	103	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	104	90-110	

MATRIX SPIKE SAMPLE: 3498306

Parameter	Units	50359702002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.0	103	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	104	90-110	

MATRIX SPIKE SAMPLE: 3498307

Parameter	Units	50359710001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	4.4	5	9.6	106	90-110	
Nitrogen, Nitrite	mg/L	ND	5	5.2	104	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

QC Batch: 763235
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359712002, 50359712003

METHOD BLANK: 3498317 Matrix: Water
Associated Lab Samples: 50359712002, 50359712003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/16/23 02:56	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/16/23 02:56	

LABORATORY CONTROL SAMPLE: 3498318

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	102	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	104	90-110	

MATRIX SPIKE SAMPLE: 3498319

Parameter	Units	50359713001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	4.7	5	10.1	108	90-110	
Nitrogen, Nitrite	mg/L	ND	5	5.2	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498320 3498321

Parameter	Units	50359701002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	0.57	1	1	1.6	1.6	107	108	90-110	0	20	
Nitrogen, Nitrite	mg/L	0.045J	1	1	1.1	1.1	106	106	90-110	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

QC Batch: 765488
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359712001

METHOD BLANK: 3507961 Matrix: Water
Associated Lab Samples: 50359712001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	12/01/23 07:06	

LABORATORY CONTROL SAMPLE: 3507962

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3507963 3507964

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.6	1.6				3		

MATRIX SPIKE SAMPLE: 3507965

Parameter	Units	50359693006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	ND		1.5			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

QC Batch: 765489
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359712002, 50359712003, 50359712004

METHOD BLANK: 3507966 Matrix: Water
Associated Lab Samples: 50359712002, 50359712003, 50359712004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	12/01/23 07:24	

LABORATORY CONTROL SAMPLE: 3507967

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3507968 3507969

Parameter	Units	50359713002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	0.32			1.8	1.8				1		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

QC Batch: 765277
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359712001, 50359712002, 50359712003, 50359712004

METHOD BLANK: 3507089 Matrix: Water
Associated Lab Samples: 50359712001, 50359712002, 50359712003, 50359712004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	11/30/23 10:57	

LABORATORY CONTROL SAMPLE: 3507090

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.7	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3507091 3507092

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	ND	10	10	9.8	10.3	93	98	80-120	5	20	

MATRIX SPIKE SAMPLE: 3507093

Parameter	Units	50359710002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.5	10	11.2	97	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

QC Batch: 765508
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359712001, 50359712002, 50359712003, 50359712004

METHOD BLANK: 3508050 Matrix: Water
Associated Lab Samples: 50359712001, 50359712002, 50359712003, 50359712004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	11/30/23 22:39	

LABORATORY CONTROL SAMPLE: 3508051

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.6	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3508052 3508053

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	10	10	10.3	9.8	96	91	80-120	5	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3508054 3508055

Parameter	Units	50359760001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	3.2	10	10	12.8	12.8	96	96	80-120	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

Sample: MW-45I **Lab ID: 50359712001** Collected: 11/14/23 10:40 Received: 11/15/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.303 ± 0.665 (1.20) C:NA T:86%**	pCi/L	12/09/23 13:58	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.309 ± 0.332 (0.689) C:78% T:78%**	pCi/L	12/05/23 12:07	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.612 ± 0.997 (1.89)**	pCi/L	12/11/23 16:18	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

Sample: MW-45A **Lab ID: 50359712002** Collected: 11/14/23 14:00 Received: 11/15/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0813 ± 0.797 (1.53) C:NA T:90%**	pCi/L	12/09/23 13:58	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.229 ± 0.392 (0.854) C:79% T:83%**	pCi/L	12/05/23 15:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.310 ± 1.19 (2.38)**	pCi/L	12/11/23 16:18	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

Sample: MW-42A **Lab ID: 50359712003** Collected: 11/14/23 12:35 Received: 11/15/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.231 ± 0.585 (1.09) C:NA T:90%**	pCi/L	12/09/23 13:58	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.58 ± 0.544 (0.757) C:80% T:83%**	pCi/L	12/05/23 15:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.81 ± 1.13 (1.85)**	pCi/L	12/11/23 16:18	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

Sample: MW-43B **Lab ID: 50359712004** Collected: 11/14/23 11:00 Received: 11/15/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.20 ± 0.731 (0.861) C:NA T:95%**	pCi/L	12/09/23 14:11	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.828 ± 0.422 (0.732) C:88% T:76%**	pCi/L	12/05/23 15:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.03 ± 1.15 (1.59)**	pCi/L	12/11/23 16:18	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

QC Batch: 631045
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359712001, 50359712002, 50359712003, 50359712004

METHOD BLANK: 3076793 Matrix: Water
Associated Lab Samples: 50359712001, 50359712002, 50359712003, 50359712004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.150 ± 0.294 (0.537) C:NA T:108%	pCi/L	12/09/23 13:46	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

QC Batch: 631047
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359712001, 50359712002, 50359712003, 50359712004

METHOD BLANK: 3076796 Matrix: Water
Associated Lab Samples: 50359712001, 50359712002, 50359712003, 50359712004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.321 ± 0.314 (0.640) C:76% T:84%	pCi/L	12/05/23 12:05	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359712001	**MW-45I**	EPA 9056	764395		
50359712002	**MW-45A**	EPA 9056	764395		
50359712003	**MW-42A**	EPA 9056	764395		
50359712004	**MW-43B**	EPA 9056	764395		
50359712001	**MW-45I**	EPA 3010	764429	EPA 6010	765289
50359712002	**MW-45A**	EPA 3010	764429	EPA 6010	765289
50359712003	**MW-42A**	EPA 3010	764429	EPA 6010	765289
50359712004	**MW-43B**	EPA 3010	764429	EPA 6010	765289
50359712001	**MW-45I**	EPA 3010	764933	EPA 6010	765198
50359712002	**MW-45A**	EPA 3010	764933	EPA 6010	765198
50359712003	**MW-42A**	EPA 3010	764933	EPA 6010	765198
50359712004	**MW-43B**	EPA 3010	764933	EPA 6010	765198
50359712001	**MW-45I**	EPA 200.2	764636	EPA 6020	764771
50359712002	**MW-45A**	EPA 200.2	764636	EPA 6020	764771
50359712003	**MW-42A**	EPA 200.2	764636	EPA 6020	764771
50359712004	**MW-43B**	EPA 200.2	764636	EPA 6020	764771
50359712001	**MW-45I**	EPA 200.2	764330	EPA 6020	764576
50359712002	**MW-45A**	EPA 200.2	764330	EPA 6020	764576
50359712003	**MW-42A**	EPA 200.2	764330	EPA 6020	764576
50359712004	**MW-43B**	EPA 200.2	764330	EPA 6020	764576
50359712001	**MW-45I**	EPA 903.1	631045		
50359712002	**MW-45A**	EPA 903.1	631045		
50359712003	**MW-42A**	EPA 903.1	631045		
50359712004	**MW-43B**	EPA 903.1	631045		
50359712001	**MW-45I**	EPA 904.0	631047		
50359712002	**MW-45A**	EPA 904.0	631047		
50359712003	**MW-42A**	EPA 904.0	631047		
50359712004	**MW-43B**	EPA 904.0	631047		
50359712001	**MW-45I**	Total Radium Calculation	635231		
50359712002	**MW-45A**	Total Radium Calculation	635231		
50359712003	**MW-42A**	Total Radium Calculation	635231		
50359712004	**MW-43B**	Total Radium Calculation	635231		
50359712001	**MW-45I**	SM 2320B	763745		
50359712002	**MW-45A**	SM 2320B	763745		
50359712003	**MW-42A**	SM 2320B	763745		
50359712004	**MW-43B**	SM 2320B	763745		
50359712001	**MW-45I**	SM 2540C	763926		
50359712002	**MW-45A**	SM 2540C	763926		
50359712003	**MW-42A**	SM 2540C	763926		
50359712004	**MW-43B**	SM 2540C	763926		
50359712001	**MW-45I**	SM 4500-H+B	765649		
50359712002	**MW-45A**	SM 4500-H+B	765649		
50359712003	**MW-42A**	SM 4500-H+B	765649		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359712

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359712004	**MW-43B**	SM 4500-H+B	765658		
50359712001	**MW-45I**	SM 4500-S2-D	763324		
50359712002	**MW-45A**	SM 4500-S2-D	763324		
50359712003	**MW-42A**	SM 4500-S2-D	763324		
50359712004	**MW-43B**	SM 4500-S2-D	763324		
50359712001	**MW-45I**	HACH 8146	763334		
50359712002	**MW-45A**	HACH 8146	763335		
50359712003	**MW-42A**	HACH 8146	763335		
50359712004	**MW-43B**	HACH 8146	763334		
50359712001	**MW-45I**	EPA 353.2	763232		
50359712002	**MW-45A**	EPA 353.2	763235		
50359712003	**MW-42A**	EPA 353.2	763235		
50359712004	**MW-43B**	EPA 353.2	763232		
50359712001	**MW-45I**	EPA 365.1	765488	EPA 365.1	765742
50359712002	**MW-45A**	EPA 365.1	765489	EPA 365.1	765744
50359712003	**MW-42A**	EPA 365.1	765489	EPA 365.1	765744
50359712004	**MW-43B**	EPA 365.1	765489	EPA 365.1	765744
50359712001	**MW-45I**	SM 5310C	765277		
50359712002	**MW-45A**	SM 5310C	765277		
50359712003	**MW-42A**	SM 5310C	765277		
50359712004	**MW-43B**	SM 5310C	765277		
50359712001	**MW-45I**	SM 5310C	765508		
50359712002	**MW-45A**	SM 5310C	765508		
50359712003	**MW-42A**	SM 5310C	765508		
50359712004	**MW-43B**	SM 5310C	765508		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical®
WWW.PACELABS.COM

CHAI[illegible]cument

The Cha[illegible] be completed accurately.

WO#: 50359712

50359712

Page : Of

Section A
Required Client Information:

Company:	Atlas Indianapolis
Address:	7988 Centerpoint Drive Suite 100
	Indianapolis, IN 46256
Email:	mark.breting@oneatlas.com
Phone:	(317)579-4082 Fax:
Requested Due Date:	

Section B
Required Project Information:

Report To:	Mark Breting
Copy To:	
Purchase Order #:	
Project Name:	Petersburg P4R4 Nov 2023
Project #:	

Attention:	Accounts Payable - Paula Sedam
Company Name:	Atlas Indianapolis
Address:	
Pace Quote:	
Pace Project Manager:	Will Statz
Pace Profile #:	10498/53

Regulatory Agency

State / Location
IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test (Y/N)	TDS/ NO2, NO3 Wet	(Br, Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered** (Y)	Alkalinity*, Ferrous Iron, pH	TOC by 5310C	DOC by 5310C (Y)	Sulfide	Phosphate	Rad-226/228 + Sum			Residual Chlorine (Y/N)	
1	MW-45 I	WT	G	11-14	1040				11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				001
2	MW-45 A	WT	G	11-14	1400				11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				002
3	MW-42A	WT	G	11-14	1235				11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				003
4	MW-~~43~~B	WT	G	11-14	1100				11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				004
5	42																														
6																															
7																															
8																															
9																															
10																															
11																															
12																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
* Metals: 6010 (B, Cd, Fe, Pb, Mo, Ca, Mg, Na, K, Li, sila) (11)	Mykah Bertram	11-14-23	1500	Jay Williams	11/15	7:45				
6020 (Al, Mn, Co, As, Se, Ba) (6)	Mohammed Baclamit	11-14-23	1500							
** Dissolved FF 6010 (B, Fe, Mo, Mg, K, Li) (6) FF 6020 (Al, Mn) (2)	Jay Williams	11-15/23	1025	[signature] / PACE	11/15/23	1025	2.6	4	4	4
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Mohammed Baclamit

SIGNATURE of SAMPLER: [signature]

DATE Signed: 11-14-23

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 11/15/23 1230 TW

1. **Courier:** ☐FED EX ☐UPS ☑CLIENT ☐PACE ☐NOW/JETT ☐OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H

4. **Cooler Temperature(s):** 2.6/2.6 | 2.8/2.8 | | |
(Initial/Corrected) **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**

5. **Packing Material:** ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? **Analysis:** N03/N02	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 13:20		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A ✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1												1	1			2	1	2	1	1	1		1					WT	✓	✓		✓
2												↓	↓			↓	↓	↓	↓	↓	↓		↓					↓	↓			↓
3												↓	↓			↓	↓	↓	↓	↓	↓		↓					↓	↓			
4												↓	↓			↓	↓	↓	↓	↓	↓		↓					↓	↓			
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 08, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 15, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50359713001	**MW-39B**	Water	11/14/23 13:20	11/15/23 10:25
50359713002	**MW-39I**	Water	11/14/23 14:45	11/15/23 10:25
50359713003	**MW-38A**	Water	11/14/23 15:40	11/15/23 10:25
50359713004	**DUP11**	Water	11/14/23 08:00	11/15/23 10:25
50359713005	**MW-38I**	Water	11/14/23 16:20	11/15/23 10:25
50359713006	**MW-38B**	Water	11/14/23 17:40	11/15/23 10:25

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50359713001	**MW-39B**	EPA 9056	ADM	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359713002	**MW-39I**	EPA 9056	ADM	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359713003	**MW-38A**	EPA 9056	ADM	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	MTM	6	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	CAW	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359713004	**DUP11**	EPA 9056	ADM	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359713005	**MW-38I**	EPA 9056	ADM	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 903.1	LL1	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359713006	**MW-38B**	EPA 9056	ADM	4	PASI-I
		EPA 6010	MTM	11	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359713001	**MW-39B**					
EPA 9056	Bromide	0.13	mg/L	0.050	12/01/23 13:28	
EPA 9056	Chloride	12.0	mg/L	0.25	12/01/23 13:28	
EPA 9056	Sulfate	58.7	mg/L	2.5	12/01/23 13:46	
EPA 6010	Boron	705	ug/L	100	11/29/23 10:56	
EPA 6010	Calcium	127000	ug/L	1000	11/29/23 10:56	
EPA 6010	Magnesium	30500	ug/L	1000	11/29/23 10:56	
EPA 6010	Silica	13500	ug/L	450	11/29/23 10:56	N2
EPA 6010	Sodium	6360	ug/L	1000	11/29/23 10:56	
EPA 6010	Boron, Dissolved	710	ug/L	100	11/29/23 11:53	
EPA 6010	Magnesium, Dissolved	30900	ug/L	1000	11/29/23 11:53	
EPA 6020	Barium	42.7	ug/L	1.0	11/28/23 23:48	
EPA 6020	Manganese	4.4	ug/L	1.0	11/28/23 23:48	
EPA 6020	Selenium	2.2	ug/L	1.0	11/28/23 23:48	
EPA 6020	Manganese, Dissolved	2.9	ug/L	1.0	11/28/23 15:22	
EPA 903.1	Radium-226	0.543 ± 0.431 (0.560) C:NA T:93%	pCi/L		12/12/23 12:26	
EPA 904.0	Radium-228	-0.0790 ± 0.396 (0.949) C:58% T:81%	pCi/L		12/06/23 12:09	
Total Radium Calculation	Total Radium	0.543 ± 0.827 (1.51)	pCi/L		12/12/23 15:29	
SM 2320B	Alkalinity, Total as CaCO3	372	mg/L	10.0	11/18/23 03:14	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	372	mg/L	10.0	11/18/23 03:14	
SM 2540C	Total Dissolved Solids	504	mg/L	10.0	11/20/23 12:42	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	11/30/23 16:53	H3
EPA 353.2	Nitrogen, Nitrate	4.7	mg/L	0.10	11/16/23 03:15	
SM 5310C	Dissolved Organic Carbon	1.5	mg/L	1.0	12/01/23 03:39	
50359713002	**MW-39I**					
EPA 9056	Bromide	0.60	mg/L	0.050	12/01/23 14:05	
EPA 9056	Chloride	85.1	mg/L	2.5	12/01/23 14:23	
EPA 9056	Sulfate	1410	mg/L	25.0	12/01/23 14:41	
EPA 6010	Boron	16000	ug/L	100	11/29/23 10:57	
EPA 6010	Calcium	537000	ug/L	5000	11/29/23 12:11	
EPA 6010	Iron	8620	ug/L	100	11/29/23 10:57	
EPA 6010	Magnesium	49600	ug/L	1000	11/29/23 10:57	
EPA 6010	Molybdenum	123	ug/L	10.0	11/29/23 10:57	
EPA 6010	Potassium	9110	ug/L	1000	11/29/23 10:57	
EPA 6010	Silica	12200	ug/L	450	11/29/23 10:57	N2
EPA 6010	Sodium	37700	ug/L	1000	11/29/23 10:57	
EPA 6010	Boron, Dissolved	16600	ug/L	100	11/29/23 11:54	
EPA 6010	Iron, Dissolved	8960	ug/L	100	11/29/23 11:54	
EPA 6010	Magnesium, Dissolved	51300	ug/L	1000	11/29/23 11:54	
EPA 6010	Molybdenum, Dissolved	126	ug/L	10.0	11/29/23 11:54	
EPA 6010	Potassium, Dissolved	9210	ug/L	1000	11/29/23 11:54	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359713002	**MW-39I**					
EPA 6020	Barium	26.8	ug/L	1.0	11/28/23 23:59	
EPA 6020	Manganese	2130	ug/L	20.0	11/29/23 20:38	
EPA 6020	Manganese, Dissolved	2230	ug/L	20.0	11/28/23 10:50	
EPA 903.1	Radium-226	0.466 ± 0.487 (0.764) C:NA T:93%	pCi/L		12/12/23 12:38	
EPA 904.0	Radium-228	0.584 ± 0.429 (0.829) C:75% T:75%	pCi/L		12/06/23 12:10	
Total Radium Calculation	Total Radium	1.05 ± 0.916 (1.59)	pCi/L		12/12/23 15:29	
SM 2320B	Alkalinity, Total as CaCO3	181	mg/L	10.0	11/18/23 03:14	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	181	mg/L	10.0	11/18/23 03:14	
SM 2540C	Total Dissolved Solids	2300	mg/L	20.0	11/20/23 12:43	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	11/30/23 16:54	H3
HACH 8146	Iron, Ferrous	2.9	mg/L	1.0	11/16/23 15:31	H3,N2
EPA 365.1	Phosphate as P04	0.32	mg/L	0.15	12/01/23 07:29	
SM 5310C	Total Organic Carbon	1.3	mg/L	1.0	11/30/23 19:26	
SM 5310C	Dissolved Organic Carbon	1.9	mg/L	1.0	12/01/23 04:05	
50359713003	**MW-38A**					
EPA 9056	Bromide	0.76	mg/L	0.050	12/01/23 15:00	
EPA 9056	Chloride	108	mg/L	2.5	12/01/23 15:18	
EPA 9056	Sulfate	1560	mg/L	25.0	12/01/23 15:37	
EPA 6010	Boron	17300	ug/L	100	11/29/23 10:59	
EPA 6010	Calcium	644000	ug/L	5000	11/29/23 12:12	
EPA 6010	Iron	7270	ug/L	100	11/29/23 10:59	
EPA 6010	Magnesium	28700	ug/L	1000	11/29/23 10:59	
EPA 6010	Molybdenum	333	ug/L	10.0	11/29/23 10:59	
EPA 6010	Potassium	8990	ug/L	1000	11/29/23 10:59	
EPA 6010	Silica	11700	ug/L	450	11/29/23 10:59	N2
EPA 6010	Sodium	34000	ug/L	1000	11/29/23 10:59	
EPA 6010	Boron, Dissolved	17600	ug/L	100	11/29/23 11:56	
EPA 6010	Iron, Dissolved	7320	ug/L	100	11/29/23 11:56	
EPA 6010	Magnesium, Dissolved	29100	ug/L	1000	11/29/23 11:56	
EPA 6010	Molybdenum, Dissolved	340	ug/L	10.0	11/29/23 11:56	
EPA 6010	Potassium, Dissolved	8970	ug/L	1000	11/29/23 11:56	
EPA 6020	Barium	27.1	ug/L	1.0	11/29/23 00:02	
EPA 6020	Manganese	2400	ug/L	20.0	11/29/23 20:41	
EPA 6020	Manganese, Dissolved	2440	ug/L	20.0	11/28/23 10:53	
EPA 903.1	Radium-226	0.000 ± 0.351 (0.761) C:NA T:90%	pCi/L		12/12/23 12:38	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359713003	**MW-38A**					
EPA 904.0	Radium-228	0.971 ± 0.532 (0.984) C:71% T:85%	pCi/L		12/06/23 12:10	
Total Radium Calculation	Total Radium	0.971 ± 0.883 (1.75)	pCi/L		12/12/23 15:29	
SM 2320B	Alkalinity, Total as CaCO3	105	mg/L	10.0	11/18/23 03:14	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	105	mg/L	10.0	11/18/23 03:14	
SM 2540C	Total Dissolved Solids	2540	mg/L	20.0	11/20/23 12:43	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	11/30/23 16:54	H3
HACH 8146	Iron, Ferrous	2.6	mg/L	1.0	11/16/23 15:31	H3,N2
EPA 365.1	Phosphate as P04	0.26	mg/L	0.15	12/01/23 07:31	
SM 5310C	Total Organic Carbon	1.6	mg/L	1.0	11/30/23 20:24	
SM 5310C	Dissolved Organic Carbon	1.8	mg/L	1.0	12/01/23 04:24	
50359713004	**DUP11**					
EPA 9056	Bromide	0.76	mg/L	0.050	12/01/23 17:09	
EPA 9056	Chloride	112	mg/L	2.5	12/01/23 17:27	
EPA 9056	Sulfate	1410	mg/L	25.0	12/01/23 17:45	
EPA 6010	Boron	17500	ug/L	100	11/29/23 11:00	
EPA 6010	Calcium	647000	ug/L	5000	11/29/23 12:14	
EPA 6010	Iron	7440	ug/L	100	11/29/23 11:00	
EPA 6010	Magnesium	28800	ug/L	1000	11/29/23 11:00	
EPA 6010	Molybdenum	338	ug/L	10.0	11/29/23 11:00	
EPA 6010	Potassium	9000	ug/L	1000	11/29/23 11:00	
EPA 6010	Silica	11800	ug/L	450	11/29/23 11:00	N2
EPA 6010	Sodium	34100	ug/L	1000	11/29/23 11:00	
EPA 6010	Boron, Dissolved	17600	ug/L	100	11/29/23 11:57	
EPA 6010	Iron, Dissolved	7280	ug/L	100	11/29/23 11:57	
EPA 6010	Magnesium, Dissolved	29000	ug/L	1000	11/29/23 11:57	
EPA 6010	Molybdenum, Dissolved	339	ug/L	10.0	11/29/23 11:57	
EPA 6010	Potassium, Dissolved	8960	ug/L	1000	11/29/23 11:57	
EPA 6020	Barium	26.8	ug/L	1.0	11/29/23 00:05	
EPA 6020	Manganese	2420	ug/L	20.0	11/29/23 20:45	
EPA 6020	Manganese, Dissolved	2440	ug/L	20.0	11/28/23 10:57	
EPA 903.1	Radium-226	0.000 ± 0.454 (0.961) C:NA T:87%	pCi/L		12/12/23 12:38	
EPA 904.0	Radium-228	1.09 ± 0.504 (0.865) C:78% T:81%	pCi/L		12/06/23 12:10	
Total Radium Calculation	Total Radium	1.09 ± 0.958 (1.83)	pCi/L		12/12/23 15:29	
SM 2320B	Alkalinity, Total as CaCO3	105	mg/L	10.0	11/18/23 03:14	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	105	mg/L	10.0	11/18/23 03:14	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359713004	**DUP11**					
SM 2540C	Total Dissolved Solids	2570	mg/L	20.0	11/20/23 12:43	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	11/30/23 16:55	H3
HACH 8146	Iron, Ferrous	2.7	mg/L	1.0	11/16/23 14:40	H3,N2
EPA 365.1	Phosphate as P04	0.31	mg/L	0.15	12/01/23 07:31	
SM 5310C	Total Organic Carbon	1.7	mg/L	1.0	11/30/23 20:44	
SM 5310C	Dissolved Organic Carbon	2.3	mg/L	1.0	12/01/23 05:23	
50359713005	**MW-38I**					
EPA 9056	Bromide	0.71	mg/L	0.050	12/01/23 18:04	
EPA 9056	Chloride	102	mg/L	2.5	12/01/23 18:22	
EPA 9056	Sulfate	1770	mg/L	25.0	12/01/23 18:41	
EPA 6010	Boron	15200	ug/L	100	11/29/23 11:02	
EPA 6010	Calcium	666000	ug/L	5000	11/29/23 12:15	
EPA 6010	Iron	6860	ug/L	100	11/29/23 11:02	
EPA 6010	Magnesium	26400	ug/L	1000	11/29/23 11:02	
EPA 6010	Molybdenum	225	ug/L	10.0	11/29/23 11:02	
EPA 6010	Potassium	8430	ug/L	1000	11/29/23 11:02	
EPA 6010	Silica	11000	ug/L	450	11/29/23 11:02	N2
EPA 6010	Sodium	34000	ug/L	1000	11/29/23 11:02	
EPA 6010	Boron, Dissolved	15500	ug/L	100	11/29/23 11:59	
EPA 6010	Iron, Dissolved	6820	ug/L	100	11/29/23 11:59	
EPA 6010	Magnesium, Dissolved	26900	ug/L	1000	11/29/23 11:59	
EPA 6010	Molybdenum, Dissolved	230	ug/L	10.0	11/29/23 11:59	
EPA 6010	Potassium, Dissolved	8700	ug/L	1000	11/29/23 11:59	
EPA 6020	Barium	26.1	ug/L	1.0	11/29/23 00:15	
EPA 6020	Manganese	2560	ug/L	20.0	11/29/23 20:55	
EPA 6020	Manganese, Dissolved	2680	ug/L	20.0	11/28/23 11:00	
EPA 903.1	Radium-226	0.671 ± 0.472 (0.602) C:NA T:94%	pCi/L		12/12/23 12:38	
EPA 904.0	Radium-228	0.278 ± 0.473 (1.03) C:72% T:77%	pCi/L		12/06/23 12:10	
Total Radium Calculation	Total Radium	0.949 ± 0.945 (1.63)	pCi/L		12/12/23 15:29	
SM 2320B	Alkalinity, Total as CaCO3	92.6	mg/L	10.0	11/18/23 03:14	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	92.6	mg/L	10.0	11/18/23 03:14	
SM 2540C	Total Dissolved Solids	2610	mg/L	20.0	11/20/23 12:44	
SM 4500-H+B	pH at 25 Degrees C	7.0	Std. Units	0.10	11/30/23 16:56	H3
HACH 8146	Iron, Ferrous	2.6	mg/L	1.0	11/16/23 15:31	H3,N2
EPA 365.1	Phosphate as P04	0.24	mg/L	0.15	12/01/23 07:33	
SM 5310C	Total Organic Carbon	1.4	mg/L	1.0	11/30/23 21:04	
SM 5310C	Dissolved Organic Carbon	3.1	mg/L	1.0	12/01/23 05:43	
50359713006	**MW-38B**					
EPA 9056	Bromide	0.10	mg/L	0.050	12/01/23 15:55	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359713006	**MW-38B**					
EPA 9056	Chloride	8.4	mg/L	0.25	12/01/23 15:55	
EPA 9056	Sulfate	66.4	mg/L	2.5	12/01/23 16:14	
EPA 6010	Boron	457	ug/L	100	11/29/23 11:03	
EPA 6010	Calcium	133000	ug/L	1000	11/29/23 11:03	
EPA 6010	Magnesium	28200	ug/L	1000	11/29/23 11:03	
EPA 6010	Silica	13900	ug/L	450	11/29/23 11:03	N2
EPA 6010	Sodium	4810	ug/L	1000	11/29/23 11:03	
EPA 6010	Boron, Dissolved	459	ug/L	100	11/29/23 12:00	
EPA 6010	Magnesium, Dissolved	28800	ug/L	1000	11/29/23 12:00	
EPA 6020	Barium	28.0	ug/L	1.0	11/29/23 00:19	
EPA 6020	Manganese	268	ug/L	2.0	11/29/23 20:58	
EPA 6020	Selenium	1.1	ug/L	1.0	11/29/23 00:19	
EPA 6020	Manganese, Dissolved	256	ug/L	2.0	11/28/23 15:18	
EPA 903.1	Radium-226	0.120 ± 0.333 (0.647) C:NA T:90%	pCi/L		12/12/23 12:38	
EPA 904.0	Radium-228	0.127 ± 0.445 (1.00) C:77% T:78%	pCi/L		12/06/23 12:10	
Total Radium Calculation	Total Radium	0.247 ± 0.778 (1.65)	pCi/L		12/12/23 15:29	
SM 2320B	Alkalinity, Total as CaCO3	361	mg/L	10.0	11/18/23 03:14	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	361	mg/L	10.0	11/18/23 03:14	
SM 2540C	Total Dissolved Solids	491	mg/L	10.0	11/20/23 12:44	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	11/30/23 16:56	H3
EPA 353.2	Nitrogen, Nitrate	6.7	mg/L	0.50	11/16/23 04:38	
SM 5310C	Dissolved Organic Carbon	2.2	mg/L	1.0	12/01/23 06:10	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Sample: MW-39B **Lab ID: 50359713001** Collected: 11/14/23 13:20 Received: 11/15/23 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.13**	mg/L	0.050	0.0090	1		12/01/23 13:28	24959-67-9	
Chloride	**12.0**	mg/L	0.25	0.067	1		12/01/23 13:28	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		12/01/23 13:28	16984-48-8	
Sulfate	**58.7**	mg/L	2.5	1.9	10		12/01/23 13:46	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**705**	ug/L	100	11.4	1	11/22/23 21:40	11/29/23 10:56	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/22/23 21:40	11/29/23 10:56	7440-43-9	
Calcium	**127000**	ug/L	1000	56.7	1	11/22/23 21:40	11/29/23 10:56	7440-70-2	
Iron	ND	ug/L	100	18.1	1	11/22/23 21:40	11/29/23 10:56	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/22/23 21:40	11/29/23 10:56	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/22/23 21:40	11/29/23 10:56	7439-93-2	
Magnesium	**30500**	ug/L	1000	32.8	1	11/22/23 21:40	11/29/23 10:56	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	11/22/23 21:40	11/29/23 10:56	7439-98-7	
Potassium	ND	ug/L	1000	120	1	11/22/23 21:40	11/29/23 10:56	7440-09-7	
Silica	**13500**	ug/L	450		1	11/22/23 21:40	11/29/23 10:56	7631-86-9	N2
Sodium	**6360**	ug/L	1000	48.2	1	11/22/23 21:40	11/29/23 10:56	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**710**	ug/L	100	11.4	1	11/28/23 16:28	11/29/23 11:53	7440-42-8	
Iron, Dissolved	ND	ug/L	100	18.1	1	11/28/23 16:28	11/29/23 11:53	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	11/28/23 16:28	11/29/23 11:53	7439-93-2	
Magnesium, Dissolved	**30900**	ug/L	1000	32.8	1	11/28/23 16:28	11/29/23 11:53	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	11/28/23 16:28	11/29/23 11:53	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	120	1	11/28/23 16:28	11/29/23 11:53	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	2.3	1	11/25/23 10:31	11/28/23 23:48	7429-90-5	
Arsenic	ND	ug/L	1.0	0.075	1	11/25/23 10:31	11/28/23 23:48	7440-38-2	
Barium	**42.7**	ug/L	1.0	0.077	1	11/25/23 10:31	11/28/23 23:48	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/25/23 10:31	11/28/23 23:48	7440-48-4	
Manganese	**4.4**	ug/L	1.0	0.17	1	11/25/23 10:31	11/28/23 23:48	7439-96-5	
Selenium	**2.2**	ug/L	1.0	0.20	1	11/25/23 10:31	11/28/23 23:48	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	11/22/23 07:28	11/28/23 15:22	7429-90-5	
Manganese, Dissolved	**2.9**	ug/L	1.0	0.17	1	11/22/23 07:28	11/28/23 15:22	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Sample: MW-39B **Lab ID: 50359713001** Collected: 11/14/23 13:20 Received: 11/15/23 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**372**	mg/L	10.0	10.0	1		11/18/23 03:14		
Alkalinity,Bicarbonate (CaCO3)	**372**	mg/L	10.0	10.0	1		11/18/23 03:14		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/18/23 03:14		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**504**	mg/L	10.0	10.0	1		11/20/23 12:42		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		11/30/23 16:53		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/16/23 12:47	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/16/23 15:29	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**4.7**	mg/L	0.10	0.011	1		11/16/23 03:15	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/16/23 03:15	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/30/23 09:30	12/01/23 07:28		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.24	1		11/30/23 19:00	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.5**	mg/L	1.0	0.24	1		12/01/23 03:39		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Sample: MW-39I **Lab ID: 50359713002** Collected: 11/14/23 14:45 Received: 11/15/23 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.60**	mg/L	0.050	0.0090	1		12/01/23 14:05	24959-67-9	
Chloride	**85.1**	mg/L	2.5	0.67	10		12/01/23 14:23	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		12/01/23 14:05	16984-48-8	
Sulfate	**1410**	mg/L	25.0	19.0	100		12/01/23 14:41	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**16000**	ug/L	100	11.4	1	11/22/23 21:40	11/29/23 10:57	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/22/23 21:40	11/29/23 10:57	7440-43-9	
Calcium	**537000**	ug/L	5000	284	5	11/22/23 21:40	11/29/23 12:11	7440-70-2	
Iron	**8620**	ug/L	100	18.1	1	11/22/23 21:40	11/29/23 10:57	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/22/23 21:40	11/29/23 10:57	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/22/23 21:40	11/29/23 10:57	7439-93-2	
Magnesium	**49600**	ug/L	1000	32.8	1	11/22/23 21:40	11/29/23 10:57	7439-95-4	
Molybdenum	**123**	ug/L	10.0	1.1	1	11/22/23 21:40	11/29/23 10:57	7439-98-7	
Potassium	**9110**	ug/L	1000	120	1	11/22/23 21:40	11/29/23 10:57	7440-09-7	
Silica	**12200**	ug/L	450		1	11/22/23 21:40	11/29/23 10:57	7631-86-9	N2
Sodium	**37700**	ug/L	1000	48.2	1	11/22/23 21:40	11/29/23 10:57	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**16600**	ug/L	100	11.4	1	11/28/23 16:28	11/29/23 11:54	7440-42-8	
Iron, Dissolved	**8960**	ug/L	100	18.1	1	11/28/23 16:28	11/29/23 11:54	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	11/28/23 16:28	11/29/23 11:54	7439-93-2	
Magnesium, Dissolved	**51300**	ug/L	1000	32.8	1	11/28/23 16:28	11/29/23 11:54	7439-95-4	
Molybdenum, Dissolved	**126**	ug/L	10.0	1.1	1	11/28/23 16:28	11/29/23 11:54	7439-98-7	
Potassium, Dissolved	**9210**	ug/L	1000	120	1	11/28/23 16:28	11/29/23 11:54	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	2.3	1	11/25/23 10:31	11/30/23 12:03	7429-90-5	
Arsenic	ND	ug/L	1.0	0.075	1	11/25/23 10:31	11/28/23 23:59	7440-38-2	
Barium	**26.8**	ug/L	1.0	0.077	1	11/25/23 10:31	11/28/23 23:59	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/25/23 10:31	11/30/23 12:03	7440-48-4	
Manganese	**2130**	ug/L	20.0	3.4	20	11/25/23 10:31	11/29/23 20:38	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	11/25/23 10:31	11/28/23 23:59	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	11/22/23 07:28	11/28/23 17:45	7429-90-5	
Manganese, Dissolved	**2230**	ug/L	20.0	3.4	20	11/22/23 07:28	11/28/23 10:50	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Sample: MW-39I **Lab ID: 50359713002** Collected: 11/14/23 14:45 Received: 11/15/23 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**181**	mg/L	10.0	10.0	1		11/18/23 03:14		
Alkalinity,Bicarbonate (CaCO3)	**181**	mg/L	10.0	10.0	1		11/18/23 03:14		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/18/23 03:14		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2300**	mg/L	20.0	20.0	1		11/20/23 12:43		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		11/30/23 16:54		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/16/23 13:19	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**2.9**	mg/L	1.0	0.18	5		11/16/23 15:31	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/16/23 03:31	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/16/23 03:31	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.32**	mg/L	0.15	0.15	1	11/30/23 09:30	12/01/23 07:29		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.3**	mg/L	1.0	0.24	1		11/30/23 19:26	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.9**	mg/L	1.0	0.24	1		12/01/23 04:05		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Sample: MW-38A **Lab ID: 50359713003** Collected: 11/14/23 15:40 Received: 11/15/23 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.76**	mg/L	0.050	0.0090	1		12/01/23 15:00	24959-67-9	
Chloride	**108**	mg/L	2.5	0.67	10		12/01/23 15:18	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		12/01/23 15:00	16984-48-8	
Sulfate	**1560**	mg/L	25.0	19.0	100		12/01/23 15:37	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**17300**	ug/L	100	11.4	1	11/22/23 21:40	11/29/23 10:59	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/22/23 21:40	11/29/23 10:59	7440-43-9	
Calcium	**644000**	ug/L	5000	284	5	11/22/23 21:40	11/29/23 12:12	7440-70-2	
Iron	**7270**	ug/L	100	18.1	1	11/22/23 21:40	11/29/23 10:59	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/22/23 21:40	11/29/23 10:59	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/22/23 21:40	11/29/23 10:59	7439-93-2	
Magnesium	**28700**	ug/L	1000	32.8	1	11/22/23 21:40	11/29/23 10:59	7439-95-4	
Molybdenum	**333**	ug/L	10.0	1.1	1	11/22/23 21:40	11/29/23 10:59	7439-98-7	
Potassium	**8990**	ug/L	1000	120	1	11/22/23 21:40	11/29/23 10:59	7440-09-7	
Silica	**11700**	ug/L	450		1	11/22/23 21:40	11/29/23 10:59	7631-86-9	N2
Sodium	**34000**	ug/L	1000	48.2	1	11/22/23 21:40	11/29/23 10:59	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**17600**	ug/L	100	11.4	1	11/28/23 16:28	11/29/23 11:56	7440-42-8	
Iron, Dissolved	**7320**	ug/L	100	18.1	1	11/28/23 16:28	11/29/23 11:56	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	11/28/23 16:28	11/29/23 11:56	7439-93-2	
Magnesium, Dissolved	**29100**	ug/L	1000	32.8	1	11/28/23 16:28	11/29/23 11:56	7439-95-4	
Molybdenum, Dissolved	**340**	ug/L	10.0	1.1	1	11/28/23 16:28	11/29/23 11:56	7439-98-7	
Potassium, Dissolved	**8970**	ug/L	1000	120	1	11/28/23 16:28	11/29/23 11:56	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	2.3	1	11/25/23 10:31	11/30/23 14:01	7429-90-5	
Arsenic	ND	ug/L	1.0	0.075	1	11/25/23 10:31	11/29/23 00:02	7440-38-2	
Barium	**27.1**	ug/L	1.0	0.077	1	11/25/23 10:31	11/29/23 00:02	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/25/23 10:31	11/30/23 14:01	7440-48-4	
Manganese	**2400**	ug/L	20.0	3.4	20	11/25/23 10:31	11/29/23 20:41	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	11/25/23 10:31	11/29/23 00:02	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	11/22/23 07:28	11/29/23 05:40	7429-90-5	
Manganese, Dissolved	**2440**	ug/L	20.0	3.4	20	11/22/23 07:28	11/28/23 10:53	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Sample: MW-38A **Lab ID: 50359713003** Collected: 11/14/23 15:40 Received: 11/15/23 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**105**	mg/L	10.0	10.0	1		11/18/23 03:14		
Alkalinity,Bicarbonate (CaCO3)	**105**	mg/L	10.0	10.0	1		11/18/23 03:14		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/18/23 03:14		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2540**	mg/L	20.0	20.0	1		11/20/23 12:43		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		11/30/23 16:54		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/16/23 13:19	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**2.6**	mg/L	1.0	0.18	5		11/16/23 15:31	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/16/23 03:41	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/16/23 03:41	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.26**	mg/L	0.15	0.15	1	11/30/23 09:30	12/01/23 07:31		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.6**	mg/L	1.0	0.24	1		11/30/23 20:24	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.8**	mg/L	1.0	0.24	1		12/01/23 04:24		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Sample: DUP11 **Lab ID: 50359713004** Collected: 11/14/23 08:00 Received: 11/15/23 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.76**	mg/L	0.050	0.0090	1		12/01/23 17:09	24959-67-9	
Chloride	**112**	mg/L	2.5	0.67	10		12/01/23 17:27	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		12/01/23 17:09	16984-48-8	
Sulfate	**1410**	mg/L	25.0	19.0	100		12/01/23 17:45	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**17500**	ug/L	100	11.4	1	11/22/23 21:40	11/29/23 11:00	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/22/23 21:40	11/29/23 11:00	7440-43-9	
Calcium	**647000**	ug/L	5000	284	5	11/22/23 21:40	11/29/23 12:14	7440-70-2	
Iron	**7440**	ug/L	100	18.1	1	11/22/23 21:40	11/29/23 11:00	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/22/23 21:40	11/29/23 11:00	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/22/23 21:40	11/29/23 11:00	7439-93-2	
Magnesium	**28800**	ug/L	1000	32.8	1	11/22/23 21:40	11/29/23 11:00	7439-95-4	
Molybdenum	**338**	ug/L	10.0	1.1	1	11/22/23 21:40	11/29/23 11:00	7439-98-7	
Potassium	**9000**	ug/L	1000	120	1	11/22/23 21:40	11/29/23 11:00	7440-09-7	
Silica	**11800**	ug/L	450		1	11/22/23 21:40	11/29/23 11:00	7631-86-9	N2
Sodium	**34100**	ug/L	1000	48.2	1	11/22/23 21:40	11/29/23 11:00	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**17600**	ug/L	100	11.4	1	11/28/23 16:28	11/29/23 11:57	7440-42-8	
Iron, Dissolved	**7280**	ug/L	100	18.1	1	11/28/23 16:28	11/29/23 11:57	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	11/28/23 16:28	11/29/23 11:57	7439-93-2	
Magnesium, Dissolved	**29000**	ug/L	1000	32.8	1	11/28/23 16:28	11/29/23 11:57	7439-95-4	
Molybdenum, Dissolved	**339**	ug/L	10.0	1.1	1	11/28/23 16:28	11/29/23 11:57	7439-98-7	
Potassium, Dissolved	**8960**	ug/L	1000	120	1	11/28/23 16:28	11/29/23 11:57	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	2.3	1	11/25/23 10:31	11/30/23 14:11	7429-90-5	
Arsenic	ND	ug/L	1.0	0.075	1	11/25/23 10:31	11/29/23 00:05	7440-38-2	
Barium	**26.8**	ug/L	1.0	0.077	1	11/25/23 10:31	11/29/23 00:05	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/25/23 10:31	11/30/23 14:11	7440-48-4	
Manganese	**2420**	ug/L	20.0	3.4	20	11/25/23 10:31	11/29/23 20:45	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	11/25/23 10:31	11/29/23 00:05	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	11/22/23 07:28	11/29/23 05:57	7429-90-5	
Manganese, Dissolved	**2440**	ug/L	20.0	3.4	20	11/22/23 07:28	11/28/23 10:57	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Sample: DUP11 **Lab ID: 50359713004** Collected: 11/14/23 08:00 Received: 11/15/23 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**105**	mg/L	10.0	10.0	1		11/18/23 03:14		
Alkalinity,Bicarbonate (CaCO3)	**105**	mg/L	10.0	10.0	1		11/18/23 03:14		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/18/23 03:14		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2570**	mg/L	20.0	20.0	1		11/20/23 12:43		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		11/30/23 16:55		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/16/23 13:19	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**2.7**	mg/L	1.0	0.18	5		11/16/23 14:40	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/16/23 02:11	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/16/23 02:11	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.31**	mg/L	0.15	0.15	1	11/30/23 09:30	12/01/23 07:31		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.7**	mg/L	1.0	0.24	1		11/30/23 20:44	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.3**	mg/L	1.0	0.24	1		12/01/23 05:23		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Sample: MW-38I **Lab ID: 50359713005** Collected: 11/14/23 16:20 Received: 11/15/23 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.71**	mg/L	0.050	0.0090	1		12/01/23 18:04	24959-67-9	
Chloride	**102**	mg/L	2.5	0.67	10		12/01/23 18:22	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		12/01/23 18:04	16984-48-8	
Sulfate	**1770**	mg/L	25.0	19.0	100		12/01/23 18:41	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**15200**	ug/L	100	11.4	1	11/22/23 21:40	11/29/23 11:02	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/22/23 21:40	11/29/23 11:02	7440-43-9	
Calcium	**666000**	ug/L	5000	284	5	11/22/23 21:40	11/29/23 12:15	7440-70-2	
Iron	**6860**	ug/L	100	18.1	1	11/22/23 21:40	11/29/23 11:02	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/22/23 21:40	11/29/23 11:02	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/22/23 21:40	11/29/23 11:02	7439-93-2	
Magnesium	**26400**	ug/L	1000	32.8	1	11/22/23 21:40	11/29/23 11:02	7439-95-4	
Molybdenum	**225**	ug/L	10.0	1.1	1	11/22/23 21:40	11/29/23 11:02	7439-98-7	
Potassium	**8430**	ug/L	1000	120	1	11/22/23 21:40	11/29/23 11:02	7440-09-7	
Silica	**11000**	ug/L	450		1	11/22/23 21:40	11/29/23 11:02	7631-86-9	N2
Sodium	**34000**	ug/L	1000	48.2	1	11/22/23 21:40	11/29/23 11:02	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**15500**	ug/L	100	11.4	1	11/28/23 16:28	11/29/23 11:59	7440-42-8	
Iron, Dissolved	**6820**	ug/L	100	18.1	1	11/28/23 16:28	11/29/23 11:59	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	11/28/23 16:28	11/29/23 11:59	7439-93-2	
Magnesium, Dissolved	**26900**	ug/L	1000	32.8	1	11/28/23 16:28	11/29/23 11:59	7439-95-4	
Molybdenum, Dissolved	**230**	ug/L	10.0	1.1	1	11/28/23 16:28	11/29/23 11:59	7439-98-7	
Potassium, Dissolved	**8700**	ug/L	1000	120	1	11/28/23 16:28	11/29/23 11:59	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	2.3	1	11/25/23 10:31	11/30/23 14:26	7429-90-5	
Arsenic	ND	ug/L	1.0	0.075	1	11/25/23 10:31	11/29/23 00:15	7440-38-2	
Barium	**26.1**	ug/L	1.0	0.077	1	11/25/23 10:31	11/29/23 00:15	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/25/23 10:31	11/30/23 14:26	7440-48-4	
Manganese	**2560**	ug/L	20.0	3.4	20	11/25/23 10:31	11/29/23 20:55	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	11/25/23 10:31	11/29/23 00:15	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	20.0	4.7	2	11/22/23 07:28	11/29/23 11:59	7429-90-5	D3
Manganese, Dissolved	**2680**	ug/L	20.0	3.4	20	11/22/23 07:28	11/28/23 11:00	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Sample: MW-38I **Lab ID: 50359713005** Collected: 11/14/23 16:20 Received: 11/15/23 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**92.6**	mg/L	10.0	10.0	1		11/18/23 03:14		
Alkalinity,Bicarbonate (CaCO3)	**92.6**	mg/L	10.0	10.0	1		11/18/23 03:14		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/18/23 03:14		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2610**	mg/L	20.0	20.0	1		11/20/23 12:44		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.0**	Std. Units	0.10	0.10	1		11/30/23 16:56		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/16/23 13:19	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**2.6**	mg/L	1.0	0.18	5		11/16/23 15:31	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/16/23 03:42	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/16/23 03:42	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.24**	mg/L	0.15	0.15	1	11/30/23 09:30	12/01/23 07:33		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.4**	mg/L	1.0	0.24	1		11/30/23 21:04	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.1**	mg/L	1.0	0.24	1		12/01/23 05:43		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Sample: MW-38B **Lab ID: 50359713006** Collected: 11/14/23 17:40 Received: 11/15/23 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.10**	mg/L	0.050	0.0090	1		12/01/23 15:55	24959-67-9	
Chloride	**8.4**	mg/L	0.25	0.067	1		12/01/23 15:55	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		12/01/23 15:55	16984-48-8	
Sulfate	**66.4**	mg/L	2.5	1.9	10		12/01/23 16:14	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**457**	ug/L	100	11.4	1	11/22/23 21:40	11/29/23 11:03	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	11/22/23 21:40	11/29/23 11:03	7440-43-9	
Calcium	**133000**	ug/L	1000	56.7	1	11/22/23 21:40	11/29/23 11:03	7440-70-2	
Iron	ND	ug/L	100	18.1	1	11/22/23 21:40	11/29/23 11:03	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	11/22/23 21:40	11/29/23 11:03	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	11/22/23 21:40	11/29/23 11:03	7439-93-2	
Magnesium	**28200**	ug/L	1000	32.8	1	11/22/23 21:40	11/29/23 11:03	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	11/22/23 21:40	11/29/23 11:03	7439-98-7	
Potassium	ND	ug/L	1000	120	1	11/22/23 21:40	11/29/23 11:03	7440-09-7	
Silica	**13900**	ug/L	450		1	11/22/23 21:40	11/29/23 11:03	7631-86-9	N2
Sodium	**4810**	ug/L	1000	48.2	1	11/22/23 21:40	11/29/23 11:03	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**459**	ug/L	100	11.4	1	11/28/23 16:28	11/29/23 12:00	7440-42-8	
Iron, Dissolved	ND	ug/L	100	18.1	1	11/28/23 16:28	11/29/23 12:00	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	11/28/23 16:28	11/29/23 12:00	7439-93-2	
Magnesium, Dissolved	**28800**	ug/L	1000	32.8	1	11/28/23 16:28	11/29/23 12:00	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	11/28/23 16:28	11/29/23 12:00	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	120	1	11/28/23 16:28	11/29/23 12:00	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	2.3	1	11/25/23 10:31	11/30/23 14:57	7429-90-5	
Arsenic	ND	ug/L	1.0	0.075	1	11/25/23 10:31	11/29/23 00:19	7440-38-2	
Barium	**28.0**	ug/L	1.0	0.077	1	11/25/23 10:31	11/29/23 00:19	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/25/23 10:31	11/30/23 14:57	7440-48-4	
Manganese	**268**	ug/L	2.0	0.34	2	11/25/23 10:31	11/29/23 20:58	7439-96-5	
Selenium	**1.1**	ug/L	1.0	0.20	1	11/25/23 10:31	11/29/23 00:19	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	11/22/23 07:28	11/28/23 15:57	7429-90-5	
Manganese, Dissolved	**256**	ug/L	2.0	0.34	2	11/22/23 07:28	11/28/23 15:18	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Sample: MW-38B **Lab ID: 50359713006** Collected: 11/14/23 17:40 Received: 11/15/23 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**361**	mg/L	10.0	10.0	1		11/18/23 03:14		
Alkalinity,Bicarbonate (CaCO3)	**361**	mg/L	10.0	10.0	1		11/18/23 03:14		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/18/23 03:14		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**491**	mg/L	10.0	10.0	1		11/20/23 12:44		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.5**	Std. Units	0.10	0.10	1		11/30/23 16:56		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/16/23 13:19	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/16/23 15:31	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**6.7**	mg/L	0.50	0.055	5		11/16/23 04:38	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.50	0.020	5		11/16/23 04:38	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	11/30/23 09:30	12/01/23 07:33		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.24	1		11/30/23 21:29	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.2**	mg/L	1.0	0.24	1		12/01/23 06:10		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

QC Batch: 764396
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359713001, 50359713002, 50359713003, 50359713004, 50359713005, 50359713006

METHOD BLANK: 3503819 Matrix: Water
Associated Lab Samples: 50359713001, 50359713002, 50359713003, 50359713004, 50359713005, 50359713006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	12/01/23 22:21	
Chloride	mg/L	ND	0.25	0.067	12/01/23 22:21	
Fluoride	mg/L	ND	0.10	0.017	12/01/23 22:21	
Sulfate	mg/L	ND	0.25	0.19	12/01/23 22:21	

LABORATORY CONTROL SAMPLE: 3503820

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.95	95	80-120	
Chloride	mg/L	2.5	2.4	94	80-120	
Fluoride	mg/L	1	0.98	98	80-120	
Sulfate	mg/L	5	4.8	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503821 3503822

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	0.067	1	1	1.0	1.0	94	95	80-120	0	15	
Chloride	mg/L	5.6	2.5	2.5	7.8	7.7	87	87	80-120	0	15	
Fluoride	mg/L	0.12	1	1	1.1	1.2	102	103	80-120	1	15	
Sulfate	mg/L	44.2	50	50	92.4	91.5	96	95	80-120	1	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

QC Batch: 764429
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359713001, 50359713002, 50359713003, 50359713004, 50359713005, 50359713006

METHOD BLANK: 3503890 Matrix: Water
Associated Lab Samples: 50359713001, 50359713002, 50359713003, 50359713004, 50359713005, 50359713006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	11.4	11/29/23 10:45	
Cadmium	ug/L	ND	2.0	0.74	11/29/23 10:45	
Calcium	ug/L	ND	1000	56.7	11/29/23 10:45	
Iron	ug/L	ND	100	18.1	11/29/23 10:45	
Lead	ug/L	ND	10.0	4.0	11/29/23 10:45	
Lithium	ug/L	ND	20.0	5.1	11/29/23 10:45	
Magnesium	ug/L	ND	1000	32.8	11/29/23 10:45	
Molybdenum	ug/L	ND	10.0	1.1	11/29/23 10:45	
Potassium	ug/L	ND	1000	120	11/29/23 10:45	
Silica	ug/L	ND	450		11/29/23 10:45	N2
Sodium	ug/L	ND	1000	48.2	11/29/23 10:45	

LABORATORY CONTROL SAMPLE: 3503891

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	928	93	80-120	
Cadmium	ug/L	1000	919	92	80-120	
Calcium	ug/L	10000	9790	98	80-120	
Iron	ug/L	10000	9620	96	80-120	
Lead	ug/L	1000	880	88	80-120	
Lithium	ug/L	1000	976	98	80-120	
Magnesium	ug/L	10000	9380	94	80-120	
Molybdenum	ug/L	1000	975	98	80-120	
Potassium	ug/L	10000	9830	98	80-120	
Silica	ug/L	10700	10200	95	80-120	N2
Sodium	ug/L	10000	9580	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503892 3503893

Parameter	Units	50359670001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	4440	1000	1000	5350	5310	91	87	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	913	912	91	91	75-125	0	20	
Calcium	ug/L	148000	10000	10000	156000	154000	80	67	75-125	1	20	P6
Iron	ug/L	3230	10000	10000	12500	12400	93	92	75-125	1	20	
Lead	ug/L	ND	1000	1000	827	826	83	83	75-125	0	20	
Lithium	ug/L	58.4	1000	1000	976	984	92	93	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503892 3503893

Parameter	Units	50359670001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Magnesium	ug/L	43400	10000	10000	52100	51600	87	82	75-125	1	20	
Molybdenum	ug/L	164	1000	1000	1140	1140	98	97	75-125	0	20	
Potassium	ug/L	8680	10000	10000	17600	17800	89	91	75-125	1	20	
Silica	ug/L	12100	10700	10700	22300	22200	96	94	75-125	1	20	N2
Sodium	ug/L	115000	10000	10000	122000	124000	66	85	75-125	2	20	P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

QC Batch: 764934
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359713001, 50359713002, 50359713003, 50359713004, 50359713005, 50359713006

METHOD BLANK: 3505786 Matrix: Water
Associated Lab Samples: 50359713001, 50359713002, 50359713003, 50359713004, 50359713005, 50359713006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	11.4	11/29/23 11:24	
Iron, Dissolved	ug/L	ND	100	18.1	11/29/23 11:24	
Lithium, Dissolved	ug/L	ND	20.0	5.1	11/29/23 11:24	
Magnesium, Dissolved	ug/L	ND	1000	32.8	11/29/23 11:24	
Molybdenum, Dissolved	ug/L	ND	10.0	1.1	11/29/23 11:24	
Potassium, Dissolved	ug/L	ND	1000	120	11/29/23 11:24	

LABORATORY CONTROL SAMPLE: 3505787

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	923	92	80-120	
Iron, Dissolved	ug/L	10000	9610	96	80-120	
Lithium, Dissolved	ug/L	1000	969	97	80-120	
Magnesium, Dissolved	ug/L	10000	9360	94	80-120	
Molybdenum, Dissolved	ug/L	1000	972	97	80-120	
Potassium, Dissolved	ug/L	10000	9570	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3505788 3505789

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	778	1000	1000	1780	1760	100	98	75-125	1	20	
Iron, Dissolved	ug/L	ND	10000	10000	9810	9770	98	98	75-125	0	20	
Lithium, Dissolved	ug/L	ND	1000	1000	994	992	99	99	75-125	0	20	
Magnesium, Dissolved	ug/L	26500	10000	10000	35900	35700	94	92	75-125	1	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1020	1020	102	102	75-125	1	20	
Potassium, Dissolved	ug/L	1080	10000	10000	10900	10900	98	98	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

QC Batch: 764636
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359713001, 50359713002, 50359713003, 50359713004, 50359713005, 50359713006

METHOD BLANK: 3504844 Matrix: Water
Associated Lab Samples: 50359713001, 50359713002, 50359713003, 50359713004, 50359713005, 50359713006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	2.3	11/28/23 20:46	
Arsenic	ug/L	ND	1.0	0.075	11/28/23 20:46	
Barium	ug/L	ND	1.0	0.077	11/28/23 20:46	
Cobalt	ug/L	ND	1.0	0.046	11/28/23 20:46	
Manganese	ug/L	ND	1.0	0.17	11/28/23 20:46	
Selenium	ug/L	ND	1.0	0.20	11/28/23 20:46	

LABORATORY CONTROL SAMPLE: 3504845

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	403	101	80-120	
Arsenic	ug/L	40	39.6	99	80-120	
Barium	ug/L	40	40.5	101	80-120	
Cobalt	ug/L	40	42.6	106	80-120	
Manganese	ug/L	40	42.5	106	80-120	
Selenium	ug/L	40	40.6	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3504846 3504847

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	29.8	400	400	436	437	101	102	75-125	0	20	
Arsenic	ug/L	ND	40	40	40.2	39.8	100	99	75-125	1	20	
Barium	ug/L	77.3	40	40	120	119	107	105	75-125	1	20	
Cobalt	ug/L	ND	40	40	40.6	40.9	101	102	75-125	1	20	
Manganese	ug/L	3.7	40	40	44.3	44.7	102	102	75-125	1	20	
Selenium	ug/L	1.7	40	40	41.2	41.6	99	100	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

QC Batch: 764330
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359713001, 50359713002, 50359713003, 50359713004, 50359713005, 50359713006

METHOD BLANK: 3503429 Matrix: Water
Associated Lab Samples: 50359713001, 50359713002, 50359713003, 50359713004, 50359713005, 50359713006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.3	11/27/23 22:57	
Manganese, Dissolved	ug/L	ND	1.0	0.17	11/27/23 22:57	

LABORATORY CONTROL SAMPLE: 3503430

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	400	100	80-120	
Manganese, Dissolved	ug/L	40	40.7	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503431 3503432

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	394	397	98	99	75-125	1	20	
Manganese, Dissolved	ug/L	ND	40	40	40.4	40.8	100	101	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

QC Batch: 763744
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359713001, 50359713002, 50359713003, 50359713004, 50359713005, 50359713006

METHOD BLANK: 3501087 Matrix: Water
Associated Lab Samples: 50359713001, 50359713002, 50359713003, 50359713004, 50359713005, 50359713006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/18/23 03:14	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/18/23 03:14	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/18/23 03:14	

LABORATORY CONTROL SAMPLE: 3501088

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.9	100	90-110	

SAMPLE DUPLICATE: 3501089

Parameter	Units	50359790005 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	413	422	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	413	422	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3501090

Parameter	Units	50359760001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	382	394	3	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	382	394	3	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

QC Batch: 763926 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359713001, 50359713002, 50359713003, 50359713004, 50359713005, 50359713006

METHOD BLANK: 3501949 Matrix: Water
Associated Lab Samples: 50359713001, 50359713002, 50359713003, 50359713004, 50359713005, 50359713006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/20/23 12:40	

LABORATORY CONTROL SAMPLE: 3501950

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	281	94	80-120	

SAMPLE DUPLICATE: 3501951

Parameter	Units	50359710001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	410	403	2	10	

SAMPLE DUPLICATE: 3501952

Parameter	Units	50359713005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2610	2590	1	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

QC Batch: 765658
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359713001, 50359713002, 50359713003, 50359713004, 50359713005, 50359713006

SAMPLE DUPLICATE: 3508633

Parameter	Units	50359712004 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.2	1	2	H3

SAMPLE DUPLICATE: 3508634

Parameter	Units	50359817010 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	5.6	5.7	2	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

QC Batch: 763324
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359713001

METHOD BLANK: 3498707 Matrix: Water
Associated Lab Samples: 50359713001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/16/23 12:47	

LABORATORY CONTROL SAMPLE: 3498708

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498709 3498710

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.52	0.53	103	105	90-110	2	20	

MATRIX SPIKE SAMPLE: 3498711

Parameter	Units	50359712004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.32	61	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

QC Batch: 763326
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359713002, 50359713003, 50359713004, 50359713005, 50359713006

METHOD BLANK: 3498717 Matrix: Water
Associated Lab Samples: 50359713002, 50359713003, 50359713004, 50359713005, 50359713006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/16/23 13:19	

LABORATORY CONTROL SAMPLE: 3498718

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498719 3498720

Parameter	Units	50359790005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.52	0.52	105	103	90-110	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498721 3498722

Parameter	Units	50359760001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.54	0.54	107	108	90-110	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498723 3498724

Parameter	Units	50359760005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.25	0.28	47	53	90-110	12	20	M3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

QC Batch: 763334
QC Batch Method: HACH 8146
Analysis Method: HACH 8146
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359713004

METHOD BLANK: 3498763 Matrix: Water
Associated Lab Samples: 50359713004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/16/23 14:33	H3,N2

LABORATORY CONTROL SAMPLE: 3498764

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	0.98	98	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498765 3498766

Parameter	Units	50359566001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.1	105	104	90-110	1	20	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498767 3498768

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.0	1.1	102	105	90-110	3	20	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

QC Batch: 763335 | Analysis Method: HACH 8146
QC Batch Method: HACH 8146 | Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359713001, 50359713002, 50359713003, 50359713005, 50359713006

METHOD BLANK: 3498769 Matrix: Water
Associated Lab Samples: 50359713001, 50359713002, 50359713003, 50359713005, 50359713006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/16/23 15:28	H3,N2

LABORATORY CONTROL SAMPLE: 3498770

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	0.99	99	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498771 3498772

Parameter	Units	50359760001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	1.6	5	5	6.5	6.5	99	99	90-110	0	20	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498773 3498774

Parameter	Units	50359760005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	1.9	5	5	6.9	6.9	99	99	90-110	0	20	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

QC Batch: 763232
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359713004

METHOD BLANK: 3498304 Matrix: Water
Associated Lab Samples: 50359713004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/16/23 02:02	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/16/23 02:02	

LABORATORY CONTROL SAMPLE: 3498305

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	103	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	104	90-110	

MATRIX SPIKE SAMPLE: 3498306

Parameter	Units	50359702002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.0	103	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.0	104	90-110	

MATRIX SPIKE SAMPLE: 3498307

Parameter	Units	50359710001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	4.4	5	9.6	106	90-110	
Nitrogen, Nitrite	mg/L	ND	5	5.2	104	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

QC Batch: 763235
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359713001, 50359713002, 50359713003, 50359713005, 50359713006

METHOD BLANK: 3498317 Matrix: Water
Associated Lab Samples: 50359713001, 50359713002, 50359713003, 50359713005, 50359713006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/16/23 02:56	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/16/23 02:56	

LABORATORY CONTROL SAMPLE: 3498318

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	102	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	104	90-110	

MATRIX SPIKE SAMPLE: 3498319

Parameter	Units	50359713001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	4.7	5	10.1	108	90-110	
Nitrogen, Nitrite	mg/L	ND	5	5.2	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498320 3498321

Parameter	Units	50359701002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	0.57	1	1	1.6	1.6	107	108	90-110	0	20	
Nitrogen, Nitrite	mg/L	0.045J	1	1	1.1	1.1	106	106	90-110	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

QC Batch: 765489
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359713001, 50359713002, 50359713003, 50359713004, 50359713005, 50359713006

METHOD BLANK: 3507966 Matrix: Water
Associated Lab Samples: 50359713001, 50359713002, 50359713003, 50359713004, 50359713005, 50359713006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	12/01/23 07:24	

LABORATORY CONTROL SAMPLE: 3507967

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3507968 3507969

Parameter	Units	50359713002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	0.32			1.8	1.8				1		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

QC Batch: 765277 | Analysis Method: SM 5310C
QC Batch Method: SM 5310C | Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359713001, 50359713002, 50359713003, 50359713004, 50359713005, 50359713006

METHOD BLANK: 3507089 Matrix: Water
Associated Lab Samples: 50359713001, 50359713002, 50359713003, 50359713004, 50359713005, 50359713006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	11/30/23 10:57	

LABORATORY CONTROL SAMPLE: 3507090

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.7	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3507091 3507092

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	ND	10	10	9.8	10.3	93	98	80-120	5	20	

MATRIX SPIKE SAMPLE: 3507093

Parameter	Units	50359710002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.5	10	11.2	97	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

QC Batch: 765508 | Analysis Method: SM 5310C
QC Batch Method: SM 5310C | Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359713001, 50359713002, 50359713003, 50359713004, 50359713005, 50359713006

METHOD BLANK: 3508050 Matrix: Water
Associated Lab Samples: 50359713001, 50359713002, 50359713003, 50359713004, 50359713005, 50359713006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	11/30/23 22:39	

LABORATORY CONTROL SAMPLE: 3508051

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.6	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3508052 3508053

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	10	10	10.3	9.8	96	91	80-120	5	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3508054 3508055

Parameter	Units	50359760001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	3.2	10	10	12.8	12.8	96	96	80-120	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Sample: MW-39B **Lab ID: 50359713001** Collected: 11/14/23 13:20 Received: 11/15/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.543 ± 0.431 (0.560) C:NA T:93%**	pCi/L	12/12/23 12:26	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**-0.0790 ± 0.396 (0.949) C:58% T:81%**	pCi/L	12/06/23 12:09	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.543 ± 0.827 (1.51)**	pCi/L	12/12/23 15:29	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Sample: MW-39I **Lab ID: 50359713002** Collected: 11/14/23 14:45 Received: 11/15/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.466 ± 0.487 (0.764) C:NA T:93%**	pCi/L	12/12/23 12:38	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.584 ± 0.429 (0.829) C:75% T:75%**	pCi/L	12/06/23 12:10	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.05 ± 0.916 (1.59)**	pCi/L	12/12/23 15:29	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Sample: MW-38A **Lab ID: 50359713003** Collected: 11/14/23 15:40 Received: 11/15/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.000 ± 0.351 (0.761) C:NA T:90%**	pCi/L	12/12/23 12:38	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.971 ± 0.532 (0.984) C:71% T:85%**	pCi/L	12/06/23 12:10	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.971 ± 0.883 (1.75)**	pCi/L	12/12/23 15:29	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Sample: DUP11 **Lab ID: 50359713004** Collected: 11/14/23 08:00 Received: 11/15/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.000 ± 0.454 (0.961) C:NA T:87%**	pCi/L	12/12/23 12:38	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.09 ± 0.504 (0.865) C:78% T:81%**	pCi/L	12/06/23 12:10	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.09 ± 0.958 (1.83)**	pCi/L	12/12/23 15:29	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Sample: MW-38I **Lab ID: 50359713005** Collected: 11/14/23 16:20 Received: 11/15/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.671 ± 0.472 (0.602) C:NA T:94%**	pCi/L	12/12/23 12:38	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.278 ± 0.473 (1.03) C:72% T:77%**	pCi/L	12/06/23 12:10	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.949 ± 0.945 (1.63)**	pCi/L	12/12/23 15:29	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Sample: MW-38B **Lab ID: 50359713006** Collected: 11/14/23 17:40 Received: 11/15/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.120 ± 0.333 (0.647) C:NA T:90%**	pCi/L	12/12/23 12:38	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.127 ± 0.445 (1.00) C:77% T:78%**	pCi/L	12/06/23 12:10	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.247 ± 0.778 (1.65)**	pCi/L	12/12/23 15:29	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

QC Batch: 631076
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359713001, 50359713002, 50359713003, 50359713004, 50359713005, 50359713006

METHOD BLANK: 3076869 Matrix: Water
Associated Lab Samples: 50359713001, 50359713002, 50359713003, 50359713004, 50359713005, 50359713006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.446 ± 0.417 (0.853) C:75% T:79%	pCi/L	12/06/23 12:05	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

QC Batch: 631075
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359713001, 50359713002, 50359713003, 50359713004, 50359713005, 50359713006

METHOD BLANK: 3076868 Matrix: Water
Associated Lab Samples: 50359713001, 50359713002, 50359713003, 50359713004, 50359713005, 50359713006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.148 ± 0.226 (0.363) C:NA T:88%	pCi/L	12/12/23 12:13	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359713001	**MW-39B**	EPA 9056	764396		
50359713002	**MW-39I**	EPA 9056	764396		
50359713003	**MW-38A**	EPA 9056	764396		
50359713004	**DUP11**	EPA 9056	764396		
50359713005	**MW-38I**	EPA 9056	764396		
50359713006	**MW-38B**	EPA 9056	764396		
50359713001	**MW-39B**	EPA 3010	764429	EPA 6010	765289
50359713002	**MW-39I**	EPA 3010	764429	EPA 6010	765289
50359713003	**MW-38A**	EPA 3010	764429	EPA 6010	765289
50359713004	**DUP11**	EPA 3010	764429	EPA 6010	765289
50359713005	**MW-38I**	EPA 3010	764429	EPA 6010	765289
50359713006	**MW-38B**	EPA 3010	764429	EPA 6010	765289
50359713001	**MW-39B**	EPA 3010	764934	EPA 6010	765308
50359713002	**MW-39I**	EPA 3010	764934	EPA 6010	765308
50359713003	**MW-38A**	EPA 3010	764934	EPA 6010	765308
50359713004	**DUP11**	EPA 3010	764934	EPA 6010	765308
50359713005	**MW-38I**	EPA 3010	764934	EPA 6010	765308
50359713006	**MW-38B**	EPA 3010	764934	EPA 6010	765308
50359713001	**MW-39B**	EPA 200.2	764636	EPA 6020	764771
50359713002	**MW-39I**	EPA 200.2	764636	EPA 6020	764771
50359713003	**MW-38A**	EPA 200.2	764636	EPA 6020	764771
50359713004	**DUP11**	EPA 200.2	764636	EPA 6020	764771
50359713005	**MW-38I**	EPA 200.2	764636	EPA 6020	764771
50359713006	**MW-38B**	EPA 200.2	764636	EPA 6020	764771
50359713001	**MW-39B**	EPA 200.2	764330	EPA 6020	764576
50359713002	**MW-39I**	EPA 200.2	764330	EPA 6020	764576
50359713003	**MW-38A**	EPA 200.2	764330	EPA 6020	764576
50359713004	**DUP11**	EPA 200.2	764330	EPA 6020	764576
50359713005	**MW-38I**	EPA 200.2	764330	EPA 6020	764576
50359713006	**MW-38B**	EPA 200.2	764330	EPA 6020	764576
50359713001	**MW-39B**	EPA 903.1	631075		
50359713002	**MW-39I**	EPA 903.1	631075		
50359713003	**MW-38A**	EPA 903.1	631075		
50359713004	**DUP11**	EPA 903.1	631075		
50359713005	**MW-38I**	EPA 903.1	631075		
50359713006	**MW-38B**	EPA 903.1	631075		
50359713001	**MW-39B**	EPA 904.0	631076		
50359713002	**MW-39I**	EPA 904.0	631076		
50359713003	**MW-38A**	EPA 904.0	631076		
50359713004	**DUP11**	EPA 904.0	631076		
50359713005	**MW-38I**	EPA 904.0	631076		
50359713006	**MW-38B**	EPA 904.0	631076		
50359713001	**MW-39B**	Total Radium Calculation	635561		
50359713002	**MW-39I**	Total Radium Calculation	635561		
50359713003	**MW-38A**	Total Radium Calculation	635561		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359713004	**DUP11**	Total Radium Calculation	635561		
50359713005	**MW-38I**	Total Radium Calculation	635561		
50359713006	**MW-38B**	Total Radium Calculation	635561		
50359713001	**MW-39B**	SM 2320B	763744		
50359713002	**MW-39I**	SM 2320B	763744		
50359713003	**MW-38A**	SM 2320B	763744		
50359713004	**DUP11**	SM 2320B	763744		
50359713005	**MW-38I**	SM 2320B	763744		
50359713006	**MW-38B**	SM 2320B	763744		
50359713001	**MW-39B**	SM 2540C	763926		
50359713002	**MW-39I**	SM 2540C	763926		
50359713003	**MW-38A**	SM 2540C	763926		
50359713004	**DUP11**	SM 2540C	763926		
50359713005	**MW-38I**	SM 2540C	763926		
50359713006	**MW-38B**	SM 2540C	763926		
50359713001	**MW-39B**	SM 4500-H+B	765658		
50359713002	**MW-39I**	SM 4500-H+B	765658		
50359713003	**MW-38A**	SM 4500-H+B	765658		
50359713004	**DUP11**	SM 4500-H+B	765658		
50359713005	**MW-38I**	SM 4500-H+B	765658		
50359713006	**MW-38B**	SM 4500-H+B	765658		
50359713001	**MW-39B**	SM 4500-S2-D	763324		
50359713002	**MW-39I**	SM 4500-S2-D	763326		
50359713003	**MW-38A**	SM 4500-S2-D	763326		
50359713004	**DUP11**	SM 4500-S2-D	763326		
50359713005	**MW-38I**	SM 4500-S2-D	763326		
50359713006	**MW-38B**	SM 4500-S2-D	763326		
50359713001	**MW-39B**	HACH 8146	763335		
50359713002	**MW-39I**	HACH 8146	763335		
50359713003	**MW-38A**	HACH 8146	763335		
50359713004	**DUP11**	HACH 8146	763334		
50359713005	**MW-38I**	HACH 8146	763335		
50359713006	**MW-38B**	HACH 8146	763335		
50359713001	**MW-39B**	EPA 353.2	763235		
50359713002	**MW-39I**	EPA 353.2	763235		
50359713003	**MW-38A**	EPA 353.2	763235		
50359713004	**DUP11**	EPA 353.2	763232		
50359713005	**MW-38I**	EPA 353.2	763235		
50359713006	**MW-38B**	EPA 353.2	763235		
50359713001	**MW-39B**	EPA 365.1	765489	EPA 365.1	765744
50359713002	**MW-39I**	EPA 365.1	765489	EPA 365.1	765744
50359713003	**MW-38A**	EPA 365.1	765489	EPA 365.1	765744
50359713004	**DUP11**	EPA 365.1	765489	EPA 365.1	765744

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359713

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359713005	**MW-38I**	EPA 365.1	765489	EPA 365.1	765744
50359713006	**MW-38B**	EPA 365.1	765489	EPA 365.1	765744
50359713001	**MW-39B**	SM 5310C	765277		
50359713002	**MW-39I**	SM 5310C	765277		
50359713003	**MW-38A**	SM 5310C	765277		
50359713004	**DUP11**	SM 5310C	765277		
50359713005	**MW-38I**	SM 5310C	765277		
50359713006	**MW-38B**	SM 5310C	765277		
50359713001	**MW-39B**	SM 5310C	765508		
50359713002	**MW-39I**	SM 5310C	765508		
50359713003	**MW-38A**	SM 5310C	765508		
50359713004	**DUP11**	SM 5310C	765508		
50359713005	**MW-38I**	SM 5310C	765508		
50359713006	**MW-38B**	SM 5310C	765508		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request D

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must

WO# : 50359713

50359713

Section A	Section B	Section C
Required Client Information:	**Required Project Information:**	**Invoice Information:**
Company: Atlas Indianapolis	Report To: Mark Breting	Attention: Accounts Payable - Paula Sedam
Address: 7988 Centerpoint Drive Suite 100	Copy To:	Company Name: Atlas Indianapolis
Indianapolis, IN 46256		Address:
Email: mark.breting@oneatlas.com	Purchase Order #:	Pace Quote:
Phone: (317)579-4082 Fax:	Project Name: Petersburg P4R4 Nov 2023	Pace Project Manager: Will Statz
Requested Due Date:	Project #:	Pace Profile #: 10498/53

Regulatory Agency:

State / Location: IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO2, NO3 Wet	(Br, Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity*, Ferrous Iron, pH	TOC by 5310C	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum	Residual Chlorine (Y/N)	
	MATRIX CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																	Y/N				Y			Y				
1	MW-39B			11/14/23	1310	11/14/23	1320		11	X	X	X		X					X	X	X	X	X	X	X	X	X		001
2	MW-39I			11/14/23	1430	11/14/23	1445		11	X	X	X		X					X	X	X	X	X	X	X	X	X		002
3	MW-38A			11/14/23	1520	11/14/23	1540		11	X	X	X		X					X	X	X	X	X	X	X	X	X		003
4	DUP11			11/14/23		11/14/23			11	X	X	X		X					X	X	X	X	X	X	X	X	X		004
5	MW-38I			11/14/23	1615	11/14/23	1620		11	X	X	X		X					X	X	X	X	X	X	X	X	X		005
6	MW-38B			11/14/23	1730	11/14/23	1740		11	X	X	X		X					X	X	X	X	X	X	X	X	X		006
7																													
8																													
9																													
10																													
11																													
12																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Metals: 6010 (B, Cd, Fe, Pb, Mo, Ca, Mg, Na, K, Li, sila) (11)		11/15/23	7:45 AM	Jay Wellman	11/15	745	Nm			
20 (Al, Mn, Co, As, Se, Ba) (6)	Jay Wellman	11/15/23	10:25 AM	PACE	11/15/23	1025	2.6	Y	Y	Y
Dissolved FF 6010 (B, Fe, Mo, Mg, K, Li) (6) FF 6020 (Al, Mn) (2)										
ad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	Josh O'Brien		
SIGNATURE of SAMPLER:		DATE Signed:	11-14-23

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 11/15/23 1230 TW

1. **Courier:** ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H

4. **Cooler Temperature(s):** 2.6/2.6 | 2.9/2.9 | 3.4/3.4 | | **(Initial/Corrected)** **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**

5. **Packing Material:** ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? **Analysis:** NO3/NO2	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 13:30		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A ✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 **of** 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1												1	1			2	1	2	1	1	1		1				WT	✓	✓		✓
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 12, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359836

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 16, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359836

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359836

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50359836001	**AP-6B**	Water	11/15/23 12:00	11/16/23 10:15
50359836002	**AP-4B**	Water	11/15/23 15:10	11/16/23 10:15
50359836003	**AP-3**	Water	11/15/23 15:50	11/16/23 10:15

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359836

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50359836001	**AP-6B**	EPA 9056	KBB	1	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 6020	CAW	2	PASI-I
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359836002	**AP-4B**	EPA 9056	KBB	1	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 6020	CAW	2	PASI-I
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359836003	**AP-3**	EPA 9056	KBB	1	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 6020	CAW	2	PASI-I
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359836

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359836

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359836001	**AP-6B**					
EPA 6010	Magnesium	36900	ug/L	1000	11/29/23 23:49	
EPA 6010	Silica	13300	ug/L	450	11/29/23 23:49	N2
EPA 6010	Sodium	7630	ug/L	1000	11/29/23 23:49	
EPA 6010	Boron, Dissolved	629	ug/L	100	11/30/23 03:46	
EPA 6010	Magnesium, Dissolved	34400	ug/L	1000	11/30/23 03:46	
EPA 6020	Aluminum	13.9	ug/L	10.0	11/28/23 21:31	
EPA 6020	Manganese	1.5	ug/L	1.0	11/28/23 21:31	
SM 2320B	Alkalinity, Total as CaCO3	298	mg/L	10.0	11/21/23 00:02	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	298	mg/L	10.0	11/21/23 00:02	
SM 2540C	Total Dissolved Solids	760	mg/L	10.0	11/21/23 08:09	
EPA 353.2	Nitrogen, Nitrate	2.2	mg/L	0.10	11/17/23 00:55	
EPA 365.1	Phosphate as P04	0.26	mg/L	0.15	12/01/23 13:33	
SM 5310C	Total Organic Carbon	1.6	mg/L	1.0	12/01/23 21:50	
SM 5310C	Dissolved Organic Carbon	3.1	mg/L	1.0	12/03/23 05:54	
50359836002	**AP-4B**					
EPA 9056	Bromide	0.15	mg/L	0.050	12/04/23 07:53	
EPA 6010	Magnesium	42900	ug/L	1000	11/30/23 00:02	
EPA 6010	Silica	13700	ug/L	450	11/30/23 00:02	N2
EPA 6010	Sodium	6650	ug/L	1000	11/30/23 00:02	
EPA 6010	Boron, Dissolved	428	ug/L	100	11/30/23 03:47	
EPA 6010	Magnesium, Dissolved	43200	ug/L	1000	11/30/23 03:47	
EPA 6020	Aluminum	14.0	ug/L	10.0	11/28/23 21:59	
EPA 6020	Manganese	7.2	ug/L	1.0	11/28/23 21:59	
EPA 6020	Manganese, Dissolved	10.2	ug/L	1.0	11/28/23 16:29	CR
SM 2320B	Alkalinity, Total as CaCO3	447	mg/L	10.0	11/21/23 00:02	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	447	mg/L	10.0	11/21/23 00:02	
SM 2540C	Total Dissolved Solids	750	mg/L	10.0	11/21/23 08:10	
EPA 353.2	Nitrogen, Nitrate	14.0	mg/L	2.5	11/17/23 02:46	
SM 5310C	Total Organic Carbon	2.3	mg/L	1.0	12/01/23 22:00	
SM 5310C	Dissolved Organic Carbon	3.9	mg/L	1.0	12/03/23 06:05	
50359836003	**AP-3**					
EPA 9056	Bromide	0.20	mg/L	0.050	12/04/23 08:51	
EPA 6010	Magnesium	39200	ug/L	1000	11/30/23 00:04	
EPA 6010	Potassium	1890	ug/L	1000	11/30/23 00:04	
EPA 6010	Silica	15100	ug/L	450	11/30/23 00:04	N2
EPA 6010	Sodium	11700	ug/L	1000	11/30/23 00:04	
EPA 6010	Boron, Dissolved	1810	ug/L	100	11/30/23 03:49	
EPA 6010	Magnesium, Dissolved	37500	ug/L	1000	11/30/23 03:49	
EPA 6010	Potassium, Dissolved	1860	ug/L	1000	11/30/23 03:49	
EPA 6020	Manganese	63.3	ug/L	1.0	11/28/23 22:03	
EPA 6020	Manganese, Dissolved	53.5	ug/L	1.0	11/28/23 17:03	
SM 2320B	Alkalinity, Total as CaCO3	380	mg/L	10.0	11/21/23 00:02	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	380	mg/L	10.0	11/21/23 00:02	
SM 2540C	Total Dissolved Solids	688	mg/L	10.0	11/21/23 08:11	
EPA 353.2	Nitrogen, Nitrate	8.8	mg/L	0.50	11/17/23 02:37	
SM 5310C	Total Organic Carbon	2.0	mg/L	1.0	12/01/23 22:39	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359836

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359836003	**AP-3**					
SM 5310C	Dissolved Organic Carbon	2.6	mg/L	1.0	12/03/23 06:15	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359836

Sample: AP-6B **Lab ID: 50359836001** Collected: 11/15/23 12:00 Received: 11/16/23 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056								
	Pace Analytical Services - Indianapolis								
Bromide	ND	mg/L	0.050	0.0090	1		12/03/23 19:53	24959-67-9	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Iron	ND	ug/L	100	30.0	1	11/25/23 22:05	11/29/23 23:49	7439-89-6	
Magnesium	**36900**	ug/L	1000	33.6	1	11/25/23 22:05	11/29/23 23:49	7439-95-4	
Potassium	ND	ug/L	1000	97.8	1	11/25/23 22:05	11/29/23 23:49	7440-09-7	
Silica	**13300**	ug/L	450		1	11/25/23 22:05	11/29/23 23:49	7631-86-9	N2
Sodium	**7630**	ug/L	1000	54.8	1	11/25/23 22:05	11/29/23 23:49	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Boron, Dissolved	**629**	ug/L	100	6.2	1	11/29/23 16:11	11/30/23 03:46	7440-42-8	
Iron, Dissolved	ND	ug/L	100	30.0	1	11/29/23 16:11	11/30/23 03:46	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/29/23 16:11	11/30/23 03:46	7439-93-2	
Magnesium, Dissolved	**34400**	ug/L	1000	33.6	1	11/29/23 16:11	11/30/23 03:46	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	11/29/23 16:11	11/30/23 03:46	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	97.8	1	11/29/23 16:11	11/30/23 03:46	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Aluminum	**13.9**	ug/L	10.0	2.8	1	11/27/23 07:13	11/28/23 21:31	7429-90-5	
Manganese	**1.5**	ug/L	1.0	0.18	1	11/27/23 07:13	11/28/23 21:31	7439-96-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	11/22/23 07:28	11/28/23 16:12	7429-90-5	
Manganese, Dissolved	ND	ug/L	1.0	0.17	1	11/22/23 07:28	11/28/23 16:12	7439-96-5	
2320B Alkalinity	Analytical Method: SM 2320B								
	Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**298**	mg/L	10.0	10.0	1		11/21/23 00:02		
Alkalinity,Bicarbonate (CaCO3)	**298**	mg/L	10.0	10.0	1		11/21/23 00:02		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/21/23 00:02		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
	Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**760**	mg/L	10.0	10.0	1		11/21/23 08:09		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D								
	Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/16/23 16:55	18496-25-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359836

Sample: AP-6B **Lab ID: 50359836001** Collected: 11/15/23 12:00 Received: 11/16/23 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/28/23 14:18	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**2.2**	mg/L	0.10	0.011	1		11/17/23 00:55	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/17/23 00:55	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.26**	mg/L	0.15	0.15	1	12/01/23 10:00	12/01/23 13:33		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.6**	mg/L	1.0	0.24	1		12/01/23 21:50	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.1**	mg/L	1.0	0.24	1		12/03/23 05:54		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359836

Sample: AP-4B **Lab ID: 50359836002** Collected: 11/15/23 15:10 Received: 11/16/23 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056								
	Pace Analytical Services - Indianapolis								
Bromide	**0.15**	mg/L	0.050	0.0090	1		12/04/23 07:53	24959-67-9	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Iron	ND	ug/L	100	30.0	1	11/25/23 22:05	11/30/23 00:02	7439-89-6	
Magnesium	**42900**	ug/L	1000	33.6	1	11/25/23 22:05	11/30/23 00:02	7439-95-4	
Potassium	ND	ug/L	1000	97.8	1	11/25/23 22:05	11/30/23 00:02	7440-09-7	
Silica	**13700**	ug/L	450		1	11/25/23 22:05	11/30/23 00:02	7631-86-9	N2
Sodium	**6650**	ug/L	1000	54.8	1	11/25/23 22:05	11/30/23 00:02	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Boron, Dissolved	**428**	ug/L	100	6.2	1	11/29/23 16:11	11/30/23 03:47	7440-42-8	
Iron, Dissolved	ND	ug/L	100	30.0	1	11/29/23 16:11	11/30/23 03:47	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/29/23 16:11	11/30/23 03:47	7439-93-2	
Magnesium, Dissolved	**43200**	ug/L	1000	33.6	1	11/29/23 16:11	11/30/23 03:47	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	11/29/23 16:11	11/30/23 03:47	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	97.8	1	11/29/23 16:11	11/30/23 03:47	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Aluminum	**14.0**	ug/L	10.0	2.8	1	11/27/23 07:13	11/28/23 21:59	7429-90-5	
Manganese	**7.2**	ug/L	1.0	0.18	1	11/27/23 07:13	11/28/23 21:59	7439-96-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	11/22/23 07:28	11/28/23 16:29	7429-90-5	
Manganese, Dissolved	**10.2**	ug/L	1.0	0.17	1	11/22/23 07:28	11/28/23 16:29	7439-96-5	CR
2320B Alkalinity	Analytical Method: SM 2320B								
	Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**447**	mg/L	10.0	10.0	1		11/21/23 00:02		
Alkalinity,Bicarbonate (CaCO3)	**447**	mg/L	10.0	10.0	1		11/21/23 00:02		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/21/23 00:02		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
	Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**750**	mg/L	10.0	10.0	1		11/21/23 08:10		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D								
	Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/16/23 16:55	18496-25-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359836

Sample: AP-4B **Lab ID: 50359836002** Collected: 11/15/23 15:10 Received: 11/16/23 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/28/23 14:19	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**14.0**	mg/L	2.5	0.28	25		11/17/23 02:46	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	2.5	0.10	25		11/17/23 02:46	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	12/01/23 10:00	12/01/23 13:34		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**2.3**	mg/L	1.0	0.24	1		12/01/23 22:00	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.9**	mg/L	1.0	0.24	1		12/03/23 06:05		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359836

Sample: AP-3 **Lab ID: 50359836003** Collected: 11/15/23 15:50 Received: 11/16/23 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.20**	mg/L	0.050	0.0090	1		12/04/23 08:51	24959-67-9	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Iron	ND	ug/L	100	30.0	1	11/25/23 22:05	11/30/23 00:04	7439-89-6	
Magnesium	**39200**	ug/L	1000	33.6	1	11/25/23 22:05	11/30/23 00:04	7439-95-4	
Potassium	**1890**	ug/L	1000	97.8	1	11/25/23 22:05	11/30/23 00:04	7440-09-7	
Silica	**15100**	ug/L	450		1	11/25/23 22:05	11/30/23 00:04	7631-86-9	N2
Sodium	**11700**	ug/L	1000	54.8	1	11/25/23 22:05	11/30/23 00:04	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1810**	ug/L	100	6.2	1	11/29/23 16:11	11/30/23 03:49	7440-42-8	
Iron, Dissolved	ND	ug/L	100	30.0	1	11/29/23 16:11	11/30/23 03:49	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/29/23 16:11	11/30/23 03:49	7439-93-2	
Magnesium, Dissolved	**37500**	ug/L	1000	33.6	1	11/29/23 16:11	11/30/23 03:49	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	11/29/23 16:11	11/30/23 03:49	7439-98-7	
Potassium, Dissolved	**1860**	ug/L	1000	97.8	1	11/29/23 16:11	11/30/23 03:49	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	2.8	1	11/27/23 07:13	11/28/23 22:03	7429-90-5	
Manganese	**63.3**	ug/L	1.0	0.18	1	11/27/23 07:13	11/28/23 22:03	7439-96-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	11/22/23 07:28	11/28/23 17:03	7429-90-5	
Manganese, Dissolved	**53.5**	ug/L	1.0	0.17	1	11/22/23 07:28	11/28/23 17:03	7439-96-5	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**380**	mg/L	10.0	10.0	1		11/21/23 00:02		
Alkalinity,Bicarbonate (CaCO3)	**380**	mg/L	10.0	10.0	1		11/21/23 00:02		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/21/23 00:02		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**688**	mg/L	10.0	10.0	1		11/21/23 08:11		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/16/23 16:55	18496-25-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359836

Sample: AP-3 **Lab ID: 50359836003** Collected: 11/15/23 15:50 Received: 11/16/23 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/28/23 14:19	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**8.8**	mg/L	0.50	0.055	5		11/17/23 02:37	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.50	0.020	5		11/17/23 02:37	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	12/01/23 10:00	12/01/23 13:34		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**2.0**	mg/L	1.0	0.24	1		12/01/23 22:39	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.6**	mg/L	1.0	0.24	1		12/03/23 06:15		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359836

QC Batch: 765133
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359836001, 50359836002, 50359836003

METHOD BLANK: 3506567 Matrix: Water
Associated Lab Samples: 50359836001, 50359836002, 50359836003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	12/03/23 19:20	

LABORATORY CONTROL SAMPLE: 3506568

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.93	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3506569 3506570

Parameter	Units	50359760005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	0.12	1	1	1.0	1.0	93	89	80-120	4	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359836

QC Batch: 764435
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359836001, 50359836002, 50359836003

METHOD BLANK: 3503916 Matrix: Water
Associated Lab Samples: 50359836001, 50359836002, 50359836003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron	ug/L	ND	100	30.0	11/29/23 23:48	
Magnesium	ug/L	ND	1000	33.6	11/29/23 23:48	
Potassium	ug/L	ND	1000	97.8	11/29/23 23:48	
Silica	ug/L	ND	450		11/29/23 23:48	N2
Sodium	ug/L	ND	1000	54.8	11/29/23 23:48	

LABORATORY CONTROL SAMPLE: 3503917

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	10000	10300	103	80-120	
Magnesium	ug/L	10000	9820	98	80-120	
Potassium	ug/L	10000	10200	102	80-120	
Silica	ug/L	10700	11000	103	80-120	N2
Sodium	ug/L	10000	9990	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503918 3503919

Parameter	Units	50359836001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	ug/L	ND	10000	10000	10000	10400	100	103	75-125	3	20	
Magnesium	ug/L	36900	10000	10000	45900	47200	91	104	75-125	3	20	
Potassium	ug/L	ND	10000	10000	10500	10900	102	106	75-125	4	20	
Silica	ug/L	13300	10700	10700	24100	24900	101	108	75-125	3	20	N2
Sodium	ug/L	7630	10000	10000	17400	17900	98	102	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359836

QC Batch: 765309
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359836001, 50359836002, 50359836003

METHOD BLANK: 3507186 Matrix: Water
Associated Lab Samples: 50359836001, 50359836002, 50359836003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	11/30/23 03:22	
Iron, Dissolved	ug/L	ND	100	30.0	11/30/23 03:22	
Lithium, Dissolved	ug/L	ND	20.0	6.8	11/30/23 03:22	
Magnesium, Dissolved	ug/L	ND	1000	33.6	11/30/23 03:22	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	11/30/23 03:22	
Potassium, Dissolved	ug/L	ND	1000	97.8	11/30/23 03:22	

LABORATORY CONTROL SAMPLE: 3507187

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	954	95	80-120	
Iron, Dissolved	ug/L	10000	10200	102	80-120	
Lithium, Dissolved	ug/L	1000	1010	101	80-120	
Magnesium, Dissolved	ug/L	10000	9720	97	80-120	
Molybdenum, Dissolved	ug/L	1000	1040	104	80-120	
Potassium, Dissolved	ug/L	10000	10100	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3507188 3507189

Parameter	Units	50359760001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	1190	1000	1000	2130	2110	94	92	75-125	1	20	
Iron, Dissolved	ug/L	4440	10000	10000	13900	13900	94	95	75-125	1	20	
Lithium, Dissolved	ug/L	ND	1000	1000	974	977	96	96	75-125	0	20	
Magnesium, Dissolved	ug/L	42100	10000	10000	49800	50100	77	80	75-125	1	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1000	1010	100	101	75-125	1	20	
Potassium, Dissolved	ug/L	5380	10000	10000	15000	15000	96	97	75-125	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3507190 3507191

Parameter	Units	50359760005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	2850	1000	1000	3780	3760	93	91	75-125	1	20	
Iron, Dissolved	ug/L	2290	10000	10000	11800	11900	95	96	75-125	1	20	
Lithium, Dissolved	ug/L	57.1	1000	1000	1010	1020	96	96	75-125	0	20	
Magnesium, Dissolved	ug/L	54000	10000	10000	61900	61900	79	79	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359836

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3507190 3507191

Parameter	Units	50359760005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Molybdenum, Dissolved	ug/L	18.8	1000	1000	1020	1030	101	101	75-125	1	20	
Potassium, Dissolved	ug/L	10200	10000	10000	19800	19700	95	95	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359836

QC Batch: 764730
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359836001, 50359836002, 50359836003

METHOD BLANK: 3505199 Matrix: Water
Associated Lab Samples: 50359836001, 50359836002, 50359836003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	2.8	11/28/23 20:07	
Manganese	ug/L	ND	1.0	0.18	11/28/23 20:07	

LABORATORY CONTROL SAMPLE: 3505200

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	378	95	80-120	
Manganese	ug/L	40	41.0	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3505201 3505202

Parameter	Units	50359836001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	13.9	400	400	388	392	94	95	75-125	1	20	
Manganese	ug/L	1.5	40	40	41.2	40.9	99	98	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359836

QC Batch: 764330
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359836001, 50359836002, 50359836003

METHOD BLANK: 3503429 Matrix: Water
Associated Lab Samples: 50359836001, 50359836002, 50359836003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.3	11/27/23 22:57	
Manganese, Dissolved	ug/L	ND	1.0	0.17	11/27/23 22:57	

LABORATORY CONTROL SAMPLE: 3503430

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	400	100	80-120	
Manganese, Dissolved	ug/L	40	40.7	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503431 3503432

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	394	397	98	99	75-125	1	20	
Manganese, Dissolved	ug/L	ND	40	40	40.4	40.8	100	101	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359836

QC Batch: 764115
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359836001, 50359836002, 50359836003

METHOD BLANK: 3502582 Matrix: Water
Associated Lab Samples: 50359836001, 50359836002, 50359836003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/21/23 00:02	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/21/23 00:02	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/21/23 00:02	

LABORATORY CONTROL SAMPLE: 3502583

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.1	100	90-110	

SAMPLE DUPLICATE: 3502584

Parameter	Units	50359836001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	298	305	3	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	298	305	3	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359836

QC Batch: 764109
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359836001, 50359836002, 50359836003

METHOD BLANK: 3502516 Matrix: Water
Associated Lab Samples: 50359836001, 50359836002, 50359836003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/21/23 08:07	

LABORATORY CONTROL SAMPLE: 3502517

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	294	98	80-120	

SAMPLE DUPLICATE: 3502518

Parameter	Units	50359829001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	11600	11800	1	10	

SAMPLE DUPLICATE: 3502519

Parameter	Units	50359843002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	737	733	1	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359836

QC Batch: 763457
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359836001, 50359836002, 50359836003

METHOD BLANK: 3499503 Matrix: Water
Associated Lab Samples: 50359836001, 50359836002, 50359836003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/16/23 16:55	

LABORATORY CONTROL SAMPLE: 3499504

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3499505 3499506

Parameter	Units	50359843002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.53	0.52	105	103	90-110	2	20	

MATRIX SPIKE SAMPLE: 3499507

Parameter	Units	50359859002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.59	111	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359836

QC Batch: 765058 | Analysis Method: HACH 8146
QC Batch Method: HACH 8146 | Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359836001, 50359836002, 50359836003

METHOD BLANK: 3506112 Matrix: Water
Associated Lab Samples: 50359836001, 50359836002, 50359836003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/28/23 14:17	H3,N2

LABORATORY CONTROL SAMPLE: 3506113

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	0.98	98	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3506114 3506115

Parameter	Units	50359882002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.1	106	106	90-110	0	20	H3,N2

MATRIX SPIKE SAMPLE: 3506116

Parameter	Units	50360217001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.1	106	90-110	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359836

QC Batch: 763503
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359836001, 50359836003

METHOD BLANK: 3499825 Matrix: Water
Associated Lab Samples: 50359836001, 50359836003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/17/23 00:18	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/17/23 00:18	

LABORATORY CONTROL SAMPLE: 3499826

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	103	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3499827 3499828

Parameter	Units	50359836001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	2.2	1	1	3.1	3.1	97	97	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.1	1.1	105	105	90-110	0	20	

MATRIX SPIKE SAMPLE: 3499829

Parameter	Units	50359836003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	8.8	10	19.0	102	90-110	
Nitrogen, Nitrite	mg/L	ND	10	10.5	105	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359836

QC Batch: 763504
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359836002

METHOD BLANK: 3499830 Matrix: Water
Associated Lab Samples: 50359836002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/17/23 02:41	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/17/23 02:41	

LABORATORY CONTROL SAMPLE: 3499831

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	102	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	104	90-110	

MATRIX SPIKE SAMPLE: 3499832

Parameter	Units	50359827002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	0.012J	1	1.0	100	90-110	
Nitrogen, Nitrite	mg/L	0.010J	1	1.0	103	90-110	

MATRIX SPIKE SAMPLE: 3499833

Parameter	Units	50359827005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	5	5.0	99	90-110	
Nitrogen, Nitrite	mg/L	ND	5	5.3	105	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359836

QC Batch: 765749
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359836001, 50359836002, 50359836003

METHOD BLANK: 3509048 Matrix: Water
Associated Lab Samples: 50359836001, 50359836002, 50359836003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	12/01/23 13:24	

LABORATORY CONTROL SAMPLE: 3509049

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3509050 3509051

Parameter	Units	50359827005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.7	1.6				2		

MATRIX SPIKE SAMPLE: 3509052

Parameter	Units	50359827006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	ND		1.6			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359836

QC Batch: 765310 | Analysis Method: SM 5310C
QC Batch Method: SM 5310C | Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359836001, 50359836002, 50359836003

METHOD BLANK: 3507193 Matrix: Water
Associated Lab Samples: 50359836001, 50359836002, 50359836003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	12/01/23 17:28	

LABORATORY CONTROL SAMPLE: 3507194

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3507195 3507196

Parameter	Units	50359797005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	ND	10	10	10.1	10.1	99	99	80-120	0	20	

MATRIX SPIKE SAMPLE: 3507197

Parameter	Units	50359797006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	ND	10	10.1	99	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359836

QC Batch: 765968
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359836001, 50359836002, 50359836003

METHOD BLANK: 3510138 Matrix: Water
Associated Lab Samples: 50359836001, 50359836002, 50359836003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	12/03/23 03:58	

LABORATORY CONTROL SAMPLE: 3510139

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3510140 3510141

Parameter	Units	50359760005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.5	10	10	11.8	11.9	94	94	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3510142 3510143

Parameter	Units	50359882002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.7	10	10	11.4	11.5	97	98	80-120	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359836

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

CR	The dissolved metal result was greater than the total metal result for this element. Results were confirmed by reanalysis.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P3R4 Nov 2023
Pace Project No.: 50359836

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359836001	**AP-6B**	EPA 9056	765133		
50359836002	**AP-4B**	EPA 9056	765133		
50359836003	**AP-3**	EPA 9056	765133		
50359836001	**AP-6B**	EPA 3010	764435	EPA 6010	765468
50359836002	**AP-4B**	EPA 3010	764435	EPA 6010	765468
50359836003	**AP-3**	EPA 3010	764435	EPA 6010	765468
50359836001	**AP-6B**	EPA 3010	765309	EPA 6010	765474
50359836002	**AP-4B**	EPA 3010	765309	EPA 6010	765474
50359836003	**AP-3**	EPA 3010	765309	EPA 6010	765474
50359836001	**AP-6B**	EPA 200.2	764730	EPA 6020	764888
50359836002	**AP-4B**	EPA 200.2	764730	EPA 6020	764888
50359836003	**AP-3**	EPA 200.2	764730	EPA 6020	764888
50359836001	**AP-6B**	EPA 200.2	764330	EPA 6020	764576
50359836002	**AP-4B**	EPA 200.2	764330	EPA 6020	764576
50359836003	**AP-3**	EPA 200.2	764330	EPA 6020	764576
50359836001	**AP-6B**	SM 2320B	764115		
50359836002	**AP-4B**	SM 2320B	764115		
50359836003	**AP-3**	SM 2320B	764115		
50359836001	**AP-6B**	SM 2540C	764109		
50359836002	**AP-4B**	SM 2540C	764109		
50359836003	**AP-3**	SM 2540C	764109		
50359836001	**AP-6B**	SM 4500-S2-D	763457		
50359836002	**AP-4B**	SM 4500-S2-D	763457		
50359836003	**AP-3**	SM 4500-S2-D	763457		
50359836001	**AP-6B**	HACH 8146	765058		
50359836002	**AP-4B**	HACH 8146	765058		
50359836003	**AP-3**	HACH 8146	765058		
50359836001	**AP-6B**	EPA 353.2	763503		
50359836002	**AP-4B**	EPA 353.2	763504		
50359836003	**AP-3**	EPA 353.2	763503		
50359836001	**AP-6B**	EPA 365.1	765749	EPA 365.1	765840
50359836002	**AP-4B**	EPA 365.1	765749	EPA 365.1	765840
50359836003	**AP-3**	EPA 365.1	765749	EPA 365.1	765840
50359836001	**AP-6B**	SM 5310C	765310		
50359836002	**AP-4B**	SM 5310C	765310		
50359836003	**AP-3**	SM 5310C	765310		
50359836001	**AP-6B**	SM 5310C	765968		
50359836002	**AP-4B**	SM 5310C	765968		
50359836003	**AP-3**	SM 5310C	765968		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO# : 50359836

50359836

Pace Analytical
WWW.PACELABS.COM

est Document

elds must be completed accurately.

Page : Of

Section A	Section B		
Required Client Information:	Required Project Information:		
Company: Atlas Indianapolis	Report To: Mark Breting	Attention: Accounts Payable - Paula Sedam	
Address: 7988 Centerpoint Drive Suite 100	Copy To:	Company Name: Atlas Indianapolis	Regulatory Agency
Indianapolis, IN 46256		Address:	
Email: mark.breting@oneatlas.com	Purchase Order #:	Pace Quote:	
Phone: (317)579-4082 Fax:	Project Name: Petersburg P3R4 Nov 2023	Pace Project Manager: Will Statz	State / Location
Requested Due Date:	Project #:	Pace Profile #: 10498/52	IN

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique MATRIX CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO2, NO3 Wet	(Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered** (Y)	Alkalinity*, Ferrous Iron, pH	TOC by 5310C	DOC by 5310C (Y)	Sulfide	Phosphate	Residual Chlorine (Y/N)	
1	AP-6B			11/15/23	1130	11/15/23	1200		9	X	X	X		X				X	X	X	X	X	X	X	X	X		001
2	AP-4B			11/15/23	1400	11/15/23	1510		9	X	X	X		X				X	X	X	X	X	X	X	X	X		002
3	AP-3			11/15/23	1540	11/15/23	1550		9	X	X	X		X				X	X	X	X	X	X	X	X	X		003
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Metals: 6010 Fe, Mg, Na, K, sila 6020 - Al, Mn	Josh O'Brian	11-16-23	7:45 AM	Joy Williams	11-16	7:45 AM				
Dissolved FF 6010 (B, Fe, Mo, Li, Mg, K)	Joy Williams	11-16	10:15 AM	Josh O'Brian	11/16/23	1015	0.7	Y	Y	Y
liss 6020 - Al, Mn							1.3			
kalinity = (Total , Bicarb & Carb)							0.9			

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Josh O'Brian					
SIGNATURE of SAMPLER:	Josh O'Brian	DATE Signed: 11/15/23				

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 11/16/23 1140 QT

1. **Courier:** ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H

4. **Cooler Temperature(s):** 0.7/0.7 | 1.3/1.3 | 0.9/0.9 | 1.4/1.4

(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓
Short Hold Time Analysis (48 hours or less)? **Analysis:** Nitrates	✓	
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 13:40	
Rush TAT Requested (4 days or less):		✓
Custody Signatures Present?	✓	
Containers Intact?:	✓	
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓	
Extra labels on Terracore Vials? (soils only)		✓

	Yes	No	N/A
All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** ~~HNO3 (<2)~~ ~~H2SO4 (<2)~~ NaOH (>10) ~~NaOH/ZnAc (>9)~~ Any non-conformance to pH recommendations will be noted on the container count form	✓		
	Present	Absent	N/A
Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Headspace Wisconsin Sulfide?			✓
	Present	Absent	No VOA Vials Sent
Headspace in VOA Vials (>6mm): See Containter Count form for details			✓
Trip Blank Present?		✓	
Trip Blank Custody Seals?:			✓

COMMENTS: Cooler 5 - 1.9/1.9, Cooler 6 - 1.4/1.4

COC PAGE 1 **of** 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC									OTHER				Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit							
1												1	1				1	2	1	1	1		1					WT	✓	✓		✓
2												↓	↓				↓	↓	↓	↓	↓							↓	✓	✓		✓
3												↓	↓				↓	↓	↓	↓	↓		↓					↓	✓	✓		✓
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 07, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359839

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 16, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359839

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359839

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50359839001	**AP-10A**	Water	11/15/23 10:50	11/16/23 10:15

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359839

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50359839001	**AP-10A**	EPA 9056	ADM, KBB	4	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	MGM	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359839

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359839001	**AP-10A**					
EPA 9056	Bromide	4.1	mg/L	0.050	12/04/23 09:10	
EPA 9056	Chloride	163	mg/L	2.5	12/08/23 20:37	
EPA 9056	Sulfate	1650	mg/L	25.0	12/08/23 20:55	
EPA 6010	Boron	27900	ug/L	100	11/30/23 00:05	
EPA 6010	Calcium	649000	ug/L	5000	11/30/23 00:26	
EPA 6010	Iron	7940	ug/L	100	11/30/23 00:05	
EPA 6010	Magnesium	10400	ug/L	1000	11/30/23 00:05	
EPA 6010	Molybdenum	569	ug/L	10.0	11/30/23 00:05	
EPA 6010	Potassium	15100	ug/L	1000	11/30/23 00:05	
EPA 6010	Silica	11400	ug/L	450	11/30/23 00:05	N2
EPA 6010	Sodium	46100	ug/L	1000	11/30/23 00:05	
EPA 6010	Boron, Dissolved	27100	ug/L	100	11/30/23 03:50	
EPA 6010	Iron, Dissolved	7640	ug/L	100	11/30/23 03:50	
EPA 6010	Magnesium, Dissolved	10100	ug/L	1000	11/30/23 03:50	
EPA 6010	Molybdenum, Dissolved	554	ug/L	10.0	11/30/23 03:50	
EPA 6010	Potassium, Dissolved	14800	ug/L	1000	11/30/23 03:50	
EPA 6020	Barium	30.2	ug/L	1.0	11/28/23 22:07	
EPA 6020	Manganese	2540	ug/L	20.0	11/29/23 16:15	
EPA 6020	Manganese, Dissolved	2620	ug/L	20.0	11/28/23 11:10	
EPA 903.1	Radium-226	0.118 ± 0.326 (0.633) C:NA T:95%	pCi/L		12/12/23 13:23	
EPA 904.0	Radium-228	1.26 ± 0.488 (0.747) C:81% T:79%	pCi/L		12/07/23 11:28	
Total Radium Calculation	Total Radium	1.38 ± 0.814 (1.38)	pCi/L		12/12/23 15:33	
SM 2320B	Alkalinity, Total as CaCO3	164	mg/L	10.0	11/21/23 00:04	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	164	mg/L	10.0	11/21/23 00:04	
SM 2540C	Total Dissolved Solids	2660	mg/L	20.0	11/21/23 08:12	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	12/04/23 12:38	H3
HACH 8146	Iron, Ferrous	0.56	mg/L	0.20	11/28/23 14:17	H3,N2
EPA 365.1	Phosphate as P04	0.24	mg/L	0.15	12/01/23 13:36	
SM 5310C	Total Organic Carbon	2.7	mg/L	1.0	12/01/23 22:50	
SM 5310C	Dissolved Organic Carbon	4.4	mg/L	1.0	12/03/23 06:26	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359839

Sample: AP-10A **Lab ID: 50359839001** Collected: 11/15/23 10:50 Received: 11/16/23 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**4.1**	mg/L	0.050	0.0090	1		12/04/23 09:10	24959-67-9	
Chloride	**163**	mg/L	2.5	0.67	10		12/08/23 20:37	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		12/04/23 09:10	16984-48-8	
Sulfate	**1650**	mg/L	25.0	19.0	100		12/08/23 20:55	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**27900**	ug/L	100	6.2	1	11/25/23 22:05	11/30/23 00:05	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/25/23 22:05	11/30/23 00:05	7440-43-9	
Calcium	**649000**	ug/L	5000	338	5	11/25/23 22:05	11/30/23 00:26	7440-70-2	
Iron	**7940**	ug/L	100	30.0	1	11/25/23 22:05	11/30/23 00:05	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	11/25/23 22:05	11/30/23 00:05	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/25/23 22:05	11/30/23 00:05	7439-93-2	
Magnesium	**10400**	ug/L	1000	33.6	1	11/25/23 22:05	11/30/23 00:05	7439-95-4	
Molybdenum	**569**	ug/L	10.0	0.78	1	11/25/23 22:05	11/30/23 00:05	7439-98-7	
Potassium	**15100**	ug/L	1000	97.8	1	11/25/23 22:05	11/30/23 00:05	7440-09-7	
Silica	**11400**	ug/L	450		1	11/25/23 22:05	11/30/23 00:05	7631-86-9	N2
Sodium	**46100**	ug/L	1000	54.8	1	11/25/23 22:05	11/30/23 00:05	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**27100**	ug/L	100	6.2	1	11/29/23 16:11	11/30/23 03:50	7440-42-8	
Iron, Dissolved	**7640**	ug/L	100	30.0	1	11/29/23 16:11	11/30/23 03:50	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/29/23 16:11	11/30/23 03:50	7439-93-2	
Magnesium, Dissolved	**10100**	ug/L	1000	33.6	1	11/29/23 16:11	11/30/23 03:50	7439-95-4	
Molybdenum, Dissolved	**554**	ug/L	10.0	0.78	1	11/29/23 16:11	11/30/23 03:50	7439-98-7	
Potassium, Dissolved	**14800**	ug/L	1000	97.8	1	11/29/23 16:11	11/30/23 03:50	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	2.8	1	11/27/23 07:13	11/28/23 22:07	7429-90-5	
Arsenic	ND	ug/L	1.0	0.10	1	11/27/23 07:13	11/28/23 22:07	7440-38-2	
Barium	**30.2**	ug/L	1.0	0.14	1	11/27/23 07:13	11/28/23 22:07	7440-39-3	
Cobalt	ND	ug/L	1.0	0.082	1	11/27/23 07:13	11/28/23 22:07	7440-48-4	
Manganese	**2540**	ug/L	20.0	3.6	20	11/27/23 07:13	11/29/23 16:15	7439-96-5	
Selenium	ND	ug/L	1.0	0.44	1	11/27/23 07:13	11/28/23 22:07	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	11/22/23 07:28	11/29/23 06:48	7429-90-5	
Manganese, Dissolved	**2620**	ug/L	20.0	3.4	20	11/22/23 07:28	11/28/23 11:10	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359839

Sample: AP-10A **Lab ID: 50359839001** Collected: 11/15/23 10:50 Received: 11/16/23 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**164**	mg/L	10.0	10.0	1		11/21/23 00:04		
Alkalinity,Bicarbonate (CaCO3)	**164**	mg/L	10.0	10.0	1		11/21/23 00:04		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/21/23 00:04		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2660**	mg/L	20.0	20.0	1		11/21/23 08:12		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.7**	Std. Units	0.10	0.10	1		12/04/23 12:38		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/16/23 16:55	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**0.56**	mg/L	0.20	0.035	1		11/28/23 14:17	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/17/23 00:34	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/17/23 00:34	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.24**	mg/L	0.15	0.15	1	12/01/23 10:00	12/01/23 13:36		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**2.7**	mg/L	1.0	0.24	1		12/01/23 22:50	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**4.4**	mg/L	1.0	0.24	1		12/03/23 06:26		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359839

QC Batch: 765133
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359839001

METHOD BLANK: 3506567 Matrix: Water
Associated Lab Samples: 50359839001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	12/03/23 19:20	
Chloride	mg/L	ND	0.25	0.067	12/03/23 19:20	
Fluoride	mg/L	ND	0.10	0.017	12/03/23 19:20	
Sulfate	mg/L	ND	0.25	0.19	12/03/23 19:20	

LABORATORY CONTROL SAMPLE: 3506568

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.93	93	80-120	
Chloride	mg/L	2.5	2.3	93	80-120	
Fluoride	mg/L	1	1.0	100	80-120	
Sulfate	mg/L	5	4.6	91	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3506569 3506570

Parameter	Units	50359760005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	0.12	1	1	1.0	1.0	93	89	80-120	4	15	
Chloride	mg/L	231	25	25	245	244	59	52	80-120	1	15	M0
Fluoride	mg/L	ND	1	1	1.0	1.0	96	91	80-120	4	15	
Sulfate	mg/L	472	50	50	501	499	59	55	80-120	0	15	E,M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359839

QC Batch: 764435
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359839001

METHOD BLANK: 3503916 Matrix: Water
Associated Lab Samples: 50359839001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	11/29/23 23:48	
Cadmium	ug/L	ND	2.0	0.60	11/29/23 23:48	
Calcium	ug/L	ND	1000	67.7	11/29/23 23:48	
Iron	ug/L	ND	100	30.0	11/29/23 23:48	
Lead	ug/L	ND	10.0	2.5	11/29/23 23:48	
Lithium	ug/L	ND	20.0	6.8	11/29/23 23:48	
Magnesium	ug/L	ND	1000	33.6	11/29/23 23:48	
Molybdenum	ug/L	ND	10.0	0.78	11/29/23 23:48	
Potassium	ug/L	ND	1000	97.8	11/29/23 23:48	
Silica	ug/L	ND	450		11/29/23 23:48	N2
Sodium	ug/L	ND	1000	54.8	11/29/23 23:48	

LABORATORY CONTROL SAMPLE: 3503917

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	978	98	80-120	
Cadmium	ug/L	1000	1030	103	80-120	
Calcium	ug/L	10000	10300	103	80-120	
Iron	ug/L	10000	10300	103	80-120	
Lead	ug/L	1000	956	96	80-120	
Lithium	ug/L	1000	1010	101	80-120	
Magnesium	ug/L	10000	9820	98	80-120	
Molybdenum	ug/L	1000	1050	105	80-120	
Potassium	ug/L	10000	10200	102	80-120	
Silica	ug/L	10700	11000	103	80-120	N2
Sodium	ug/L	10000	9990	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503918 3503919

Parameter	Units	50359836001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	650	1000	1000	1660	1710	100	106	75-125	3	20	
Cadmium	ug/L	ND	1000	1000	1020	1070	102	107	75-125	4	20	
Calcium	ug/L	187000	10000	10000	194000	200000	70	134	75-125	3	20	E,P6
Iron	ug/L	ND	10000	10000	10000	10400	100	103	75-125	3	20	
Lead	ug/L	ND	1000	1000	919	952	92	95	75-125	4	20	
Lithium	ug/L	ND	1000	1000	1020	1050	102	105	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359839

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503918 3503919

Parameter	Units	50359836001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Magnesium	ug/L	36900	10000	10000	45900	47200	91	104	75-125	3	20	
Molybdenum	ug/L	ND	1000	1000	1040	1090	104	108	75-125	4	20	
Potassium	ug/L	ND	10000	10000	10500	10900	102	106	75-125	4	20	
Silica	ug/L	13300	10700	10700	24100	24900	101	108	75-125	3	20	N2
Sodium	ug/L	7630	10000	10000	17400	17900	98	102	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359839

QC Batch: 765309
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359839001

METHOD BLANK: 3507186 Matrix: Water
Associated Lab Samples: 50359839001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	11/30/23 03:22	
Iron, Dissolved	ug/L	ND	100	30.0	11/30/23 03:22	
Lithium, Dissolved	ug/L	ND	20.0	6.8	11/30/23 03:22	
Magnesium, Dissolved	ug/L	ND	1000	33.6	11/30/23 03:22	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	11/30/23 03:22	
Potassium, Dissolved	ug/L	ND	1000	97.8	11/30/23 03:22	

LABORATORY CONTROL SAMPLE: 3507187

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	954	95	80-120	
Iron, Dissolved	ug/L	10000	10200	102	80-120	
Lithium, Dissolved	ug/L	1000	1010	101	80-120	
Magnesium, Dissolved	ug/L	10000	9720	97	80-120	
Molybdenum, Dissolved	ug/L	1000	1040	104	80-120	
Potassium, Dissolved	ug/L	10000	10100	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3507188 3507189

Parameter	Units	50359760001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	1190	1000	1000	2130	2110	94	92	75-125	1	20	
Iron, Dissolved	ug/L	4440	10000	10000	13900	13900	94	95	75-125	1	20	
Lithium, Dissolved	ug/L	ND	1000	1000	974	977	96	96	75-125	0	20	
Magnesium, Dissolved	ug/L	42100	10000	10000	49800	50100	77	80	75-125	1	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1000	1010	100	101	75-125	1	20	
Potassium, Dissolved	ug/L	5380	10000	10000	15000	15000	96	97	75-125	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3507190 3507191

Parameter	Units	50359760005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	2850	1000	1000	3780	3760	93	91	75-125	1	20	
Iron, Dissolved	ug/L	2290	10000	10000	11800	11900	95	96	75-125	1	20	
Lithium, Dissolved	ug/L	57.1	1000	1000	1010	1020	96	96	75-125	0	20	
Magnesium, Dissolved	ug/L	54000	10000	10000	61900	61900	79	79	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359839

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3507190 3507191

Parameter	Units	50359760005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Molybdenum, Dissolved	ug/L	18.8	1000	1000	1020	1030	101	101	75-125	1	20	
Potassium, Dissolved	ug/L	10200	10000	10000	19800	19700	95	95	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359839

QC Batch: 764730
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359839001

METHOD BLANK: 3505199 Matrix: Water
Associated Lab Samples: 50359839001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	2.8	11/28/23 20:07	
Arsenic	ug/L	ND	1.0	0.10	11/28/23 20:07	
Barium	ug/L	ND	1.0	0.14	11/28/23 20:07	
Cobalt	ug/L	ND	1.0	0.082	11/28/23 20:07	
Manganese	ug/L	ND	1.0	0.18	11/28/23 20:07	
Selenium	ug/L	ND	1.0	0.44	11/28/23 20:07	

LABORATORY CONTROL SAMPLE: 3505200

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	378	95	80-120	
Arsenic	ug/L	40	39.7	99	80-120	
Barium	ug/L	40	39.7	99	80-120	
Cobalt	ug/L	40	40.3	101	80-120	
Manganese	ug/L	40	41.0	102	80-120	
Selenium	ug/L	40	40.4	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3505201 3505202

Parameter	Units	50359836001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	13.9	400	400	388	392	94	95	75-125	1	20	
Arsenic	ug/L	ND	40	40	39.6	40.1	98	100	75-125	1	20	
Barium	ug/L	26.4	40	40	65.4	65.1	97	97	75-125	0	20	
Cobalt	ug/L	ND	40	40	38.0	37.9	94	94	75-125	0	20	
Manganese	ug/L	1.5	40	40	41.2	40.9	99	98	75-125	1	20	
Selenium	ug/L	4.7	40	40	45.7	43.1	103	96	75-125	6	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359839

QC Batch: 764330
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359839001

METHOD BLANK: 3503429 Matrix: Water
Associated Lab Samples: 50359839001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.3	11/27/23 22:57	
Manganese, Dissolved	ug/L	ND	1.0	0.17	11/27/23 22:57	

LABORATORY CONTROL SAMPLE: 3503430

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	400	100	80-120	
Manganese, Dissolved	ug/L	40	40.7	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503431 3503432

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	394	397	98	99	75-125	1	20	
Manganese, Dissolved	ug/L	ND	40	40	40.4	40.8	100	101	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359839

QC Batch: 764113
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359839001

METHOD BLANK: 3502578 Matrix: Water
Associated Lab Samples: 50359839001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/21/23 00:04	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/21/23 00:04	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/21/23 00:04	

LABORATORY CONTROL SAMPLE: 3502579

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	54.1	108	90-110	

SAMPLE DUPLICATE: 3502580

Parameter	Units	50359672003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	282	288	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	266	270	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	16.8	18.4	9	20	

SAMPLE DUPLICATE: 3502581

Parameter	Units	50359845005 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	1080	1100	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	1080	1100	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	<10.0	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359839

QC Batch: 764109
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359839001

METHOD BLANK: 3502516 Matrix: Water
Associated Lab Samples: 50359839001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/21/23 08:07	

LABORATORY CONTROL SAMPLE: 3502517

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	294	98	80-120	

SAMPLE DUPLICATE: 3502518

Parameter	Units	50359829001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	11600	11800	1	10	

SAMPLE DUPLICATE: 3502519

Parameter	Units	50359843002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	737	733	1	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359839

QC Batch: 766081
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50359839001

SAMPLE DUPLICATE: 3510400

Parameter	Units	50359760006 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.0	7.1	1	2	H3

SAMPLE DUPLICATE: 3510401

Parameter	Units	50359849001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.4	8.3	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359839

QC Batch: 763457
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359839001

METHOD BLANK: 3499503 Matrix: Water
Associated Lab Samples: 50359839001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/16/23 16:55	

LABORATORY CONTROL SAMPLE: 3499504

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3499505 3499506

Parameter	Units	50359843002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.53	0.52	105	103	90-110	2	20	

MATRIX SPIKE SAMPLE: 3499507

Parameter	Units	50359859002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.59	111	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359839

QC Batch: 765058
QC Batch Method: HACH 8146
Analysis Method: HACH 8146
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50359839001

METHOD BLANK: 3506112 Matrix: Water
Associated Lab Samples: 50359839001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/28/23 14:17	H3,N2

LABORATORY CONTROL SAMPLE: 3506113

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	0.98	98	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3506114 3506115

Parameter	Units	50359882002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.1	106	106	90-110	0	20	H3,N2

MATRIX SPIKE SAMPLE: 3506116

Parameter	Units	50360217001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.1	106	90-110	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359839

QC Batch: 763503
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359839001

METHOD BLANK: 3499825 Matrix: Water
Associated Lab Samples: 50359839001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/17/23 00:18	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/17/23 00:18	

LABORATORY CONTROL SAMPLE: 3499826

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	103	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3499827 3499828

Parameter	Units	50359836001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	2.2	1	1	3.1	3.1	97	97	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.1	1.1	105	105	90-110	0	20	

MATRIX SPIKE SAMPLE: 3499829

Parameter	Units	50359836003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	8.8	10	19.0	102	90-110	
Nitrogen, Nitrite	mg/L	ND	10	10.5	105	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359839

QC Batch: 765749
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359839001

METHOD BLANK: 3509048 Matrix: Water
Associated Lab Samples: 50359839001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	12/01/23 13:24	

LABORATORY CONTROL SAMPLE: 3509049

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3509050 3509051

Parameter	Units	50359827005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.7	1.6				2		

MATRIX SPIKE SAMPLE: 3509052

Parameter	Units	50359827006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	ND		1.6			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359839

QC Batch: 765310
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359839001

METHOD BLANK: 3507193 Matrix: Water
Associated Lab Samples: 50359839001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	12/01/23 17:28	

LABORATORY CONTROL SAMPLE: 3507194

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3507195 3507196

Parameter	Units	50359797005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	ND	10	10	10.1	10.1	99	99	80-120	0	20	

MATRIX SPIKE SAMPLE: 3507197

Parameter	Units	50359797006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	ND	10	10.1	99	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359839

QC Batch: 765968
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359839001

METHOD BLANK: 3510138 Matrix: Water
Associated Lab Samples: 50359839001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	12/03/23 03:58	

LABORATORY CONTROL SAMPLE: 3510139

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3510140 3510141

Parameter	Units	50359760005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.5	10	10	11.8	11.9	94	94	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3510142 3510143

Parameter	Units	50359882002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.7	10	10	11.4	11.5	97	98	80-120	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359839

Sample: AP-10A **Lab ID: 50359839001** Collected: 11/15/23 10:50 Received: 11/16/23 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.118 ± 0.326 (0.633) C:NA T:95%**	pCi/L	12/12/23 13:23	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.26 ± 0.488 (0.747) C:81% T:79%**	pCi/L	12/07/23 11:28	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.38 ± 0.814 (1.38)**	pCi/L	12/12/23 15:33	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359839

QC Batch: 631080
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359839001

METHOD BLANK: 3076877 Matrix: Water
Associated Lab Samples: 50359839001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.107 ± 0.256 (0.495) C:NA T:89%	pCi/L	12/12/23 13:09	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359839

QC Batch: 631081
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359839001

METHOD BLANK: 3076878 Matrix: Water
Associated Lab Samples: 50359839001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0919 ± 0.296 (0.669) C:83% T:82%	pCi/L	12/07/23 11:25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359839

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50359839

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359839001	**AP-10A**	EPA 9056	765133		
50359839001	**AP-10A**	EPA 3010	764435	EPA 6010	765468
50359839001	**AP-10A**	EPA 3010	765309	EPA 6010	765474
50359839001	**AP-10A**	EPA 200.2	764730	EPA 6020	764888
50359839001	**AP-10A**	EPA 200.2	764330	EPA 6020	764576
50359839001	**AP-10A**	EPA 903.1	631080		
50359839001	**AP-10A**	EPA 904.0	631081		
50359839001	**AP-10A**	Total Radium Calculation	635562		
50359839001	**AP-10A**	SM 2320B	764113		
50359839001	**AP-10A**	SM 2540C	764109		
50359839001	**AP-10A**	SM 4500-H+B	766081		
50359839001	**AP-10A**	SM 4500-S2-D	763457		
50359839001	**AP-10A**	HACH 8146	765058		
50359839001	**AP-10A**	EPA 353.2	763503		
50359839001	**AP-10A**	EPA 365.1	765749	EPA 365.1	765840
50359839001	**AP-10A**	SM 5310C	765310		
50359839001	**AP-10A**	SM 5310C	765968		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO# : 50359839

50359839

Pace Analytical®
WWW.PACELABS.COM

CHAIN-OF-CUSTOD

The Chain-of-Custody is a LEG ... ely.

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Inform...	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P4R3 Nov 2023	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:		Pace Profile #:	10498/53

Regulatory Agency
State / Location
IN

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO2, NO3 Wet	(Br, Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered** (Y)	Alkalinity*, Ferrous Iron, pH	TOC by 5310C	DOC by 5310C (Y)	Sulfide	Phosphate	Rad-226/228 + Sum			Residual Chlorine (Y/N)	
1	AP-10A	WT	G			11-15	10:50		11	✓	✓	✓		✓					✓									✓				001
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
* Metals: 6010 (B, Cd, Fe, Pb, Mo, Ca, Mg, Na, K, Li, sila) (11)	Hayley Torres	11-15	1600	Joy Williams	11-16	7.45AM				
6020 (Al, Mn, Co, As, Se, Ba) (6)	Joy Williams	11-16	10.15AM	[signature]	11/16/23	1015	0.7	Y	Y	Y
** Dissolved FF 6010 (B, Fe, Mo, Mg, K, Li) (6) FF 6020 (Al, Mn) (2)							1.3			
Rad 226/2228 to Pace PA							0.9			

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Hayley Torres

SIGNATURE of SAMPLER: [signature] DATE Signed: 11-15-23

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 11/16/23 1140 JT

1. **Courier:** ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H

4. **Cooler Temperature(s):** 0.7/0.7 | 1.3/1.3 | 0.8/0.8 | 1.4/1.4

(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** ~~HNO3 (<2)~~ ~~H2SO4 (<2)~~ NaOH (>10) ~~NaOH/ZnAc (>9)~~ Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? **Analysis:** Nitrates	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 13:46		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A ✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent ✓	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)		✓	Trip Blank Custody Seals?:			✓

COMMENTS: Cooler 5 - 1.9/1.9, Cooler 6 - 1.4/1.4

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1												1	1			2	1	2	1	1	1		1				WT	✓	✓		✓
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 07, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg P2R4 Nov 2023
Pace Project No.: 50359842

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 16, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg P2R4 Nov 2023
Pace Project No.: 50359842

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg P2R4 Nov 2023
Pace Project No.: 50359842

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50359842001	**AP-6B**	Water	11/15/23 12:00	11/16/23 10:15
50359842002	**AP-4B**	Water	11/15/23 15:10	11/16/23 10:15
50359842003	**AP-3**	Water	11/15/23 15:50	11/16/23 10:15

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P2R4 Nov 2023
Pace Project No.: 50359842

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50359842001	**AP-6B**	EPA 9056	KBB	3	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	MGM	4	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50359842002	**AP-4B**	EPA 9056	KBB	3	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	MGM	4	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50359842003	**AP-3**	EPA 9056	KBB	3	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	MGM	4	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P2R4 Nov 2023
Pace Project No.: 50359842

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359842001	**AP-6B**					
EPA 9056	Chloride	6.7	mg/L	0.25	12/04/23 10:28	
EPA 9056	Sulfate	280	mg/L	2.5	12/04/23 10:47	
EPA 6010	Boron	665	ug/L	100	11/30/23 00:08	
EPA 6010	Calcium	185000	ug/L	1000	11/30/23 00:08	
EPA 6020	Barium	26.4	ug/L	1.0	11/28/23 22:23	
EPA 6020	Selenium	6.0	ug/L	1.0	11/28/23 22:23	
EPA 903.1	Radium-226	0.555 ± 0.607 (0.978) C:NA T:86%	pCi/L		12/12/23 13:09	
EPA 904.0	Radium-228	0.752 ± 0.423 (0.770) C:85% T:77%	pCi/L		12/07/23 11:27	
Total Radium Calculation	Total Radium	1.31 ± 1.03 (1.75)	pCi/L		12/12/23 15:33	
SM 2540C	Total Dissolved Solids	741	mg/L	10.0	11/21/23 08:12	
SM 4500-H+B	pH at 25 Degrees C	7.8	Std. Units	0.10	12/04/23 12:39	H3
50359842002	**AP-4B**					
EPA 9056	Chloride	17.1	mg/L	0.25	12/04/23 00:11	
EPA 9056	Sulfate	129	mg/L	2.5	12/04/23 00:30	
EPA 6010	Boron	420	ug/L	100	11/30/23 00:09	
EPA 6010	Calcium	181000	ug/L	1000	11/30/23 00:09	
EPA 6020	Barium	105	ug/L	1.0	11/28/23 22:27	
EPA 6020	Selenium	14.0	ug/L	1.0	11/28/23 22:27	
EPA 903.1	Radium-226	0.000 ± 0.411 (0.868) C:NA T:86%	pCi/L		12/12/23 13:09	
EPA 904.0	Radium-228	0.256 ± 0.383 (0.827) C:82% T:81%	pCi/L		12/07/23 11:27	
Total Radium Calculation	Total Radium	0.256 ± 0.794 (1.70)	pCi/L		12/12/23 15:33	
SM 2540C	Total Dissolved Solids	727	mg/L	10.0	11/21/23 08:13	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	12/04/23 12:40	H3
50359842003	**AP-3**					
EPA 9056	Chloride	14.8	mg/L	0.25	12/04/23 11:06	
EPA 9056	Sulfate	165	mg/L	2.5	12/04/23 11:26	
EPA 6010	Boron	1800	ug/L	100	11/30/23 00:11	
EPA 6010	Calcium	168000	ug/L	1000	11/30/23 00:11	
EPA 6020	Barium	34.0	ug/L	1.0	11/28/23 22:31	
EPA 6020	Selenium	3.1	ug/L	1.0	11/28/23 22:31	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P2R4 Nov 2023
Pace Project No.: 50359842

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359842003	**AP-3**					
EPA 903.1	Radium-226	0.206 ± 0.448 (0.826) C:NA T:86%	pCi/L		12/12/23 13:23	
EPA 904.0	Radium-228	0.859 ± 0.495 (0.928) C:79% T:81%	pCi/L		12/07/23 11:27	
Total Radium Calculation	Total Radium	1.07 ± 0.943 (1.75)	pCi/L		12/12/23 15:33	
SM 2540C	Total Dissolved Solids	682	mg/L	10.0	11/21/23 08:14	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	12/04/23 12:40	H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P2R4 Nov 2023
Pace Project No.: 50359842

Sample: AP-6B **Lab ID: 50359842001** Collected: 11/15/23 12:00 Received: 11/16/23 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056								
	Pace Analytical Services - Indianapolis								
Chloride	**6.7**	mg/L	0.25	0.067	1		12/04/23 10:28	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		12/04/23 10:28	16984-48-8	
Sulfate	**280**	mg/L	2.5	1.9	10		12/04/23 10:47	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Boron	**665**	ug/L	100	6.2	1	11/25/23 22:05	11/30/23 00:08	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/25/23 22:05	11/30/23 00:08	7440-43-9	
Calcium	**185000**	ug/L	1000	67.7	1	11/25/23 22:05	11/30/23 00:08	7440-70-2	
Lead	ND	ug/L	10.0	2.5	1	11/25/23 22:05	11/30/23 00:08	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/25/23 22:05	11/30/23 00:08	7439-93-2	
Molybdenum	ND	ug/L	10.0	0.78	1	11/25/23 22:05	11/30/23 00:08	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Arsenic	ND	ug/L	1.0	0.10	1	11/27/23 07:13	11/28/23 22:23	7440-38-2	
Barium	**26.4**	ug/L	1.0	0.14	1	11/27/23 07:13	11/28/23 22:23	7440-39-3	
Cobalt	ND	ug/L	1.0	0.082	1	11/27/23 07:13	11/28/23 22:23	7440-48-4	
Selenium	**6.0**	ug/L	1.0	0.44	1	11/27/23 07:13	11/28/23 22:23	7782-49-2	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
	Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**741**	mg/L	10.0	10.0	1		11/21/23 08:12		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
	Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.8**	Std. Units	0.10	0.10	1		12/04/23 12:39		H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P2R4 Nov 2023
Pace Project No.: 50359842

Sample: AP-4B **Lab ID: 50359842002** Collected: 11/15/23 15:10 Received: 11/16/23 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056								
	Pace Analytical Services - Indianapolis								
Chloride	**17.1**	mg/L	0.25	0.067	1		12/04/23 00:11	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		12/04/23 00:11	16984-48-8	
Sulfate	**129**	mg/L	2.5	1.9	10		12/04/23 00:30	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Boron	**420**	ug/L	100	6.2	1	11/25/23 22:05	11/30/23 00:09	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/25/23 22:05	11/30/23 00:09	7440-43-9	
Calcium	**181000**	ug/L	1000	67.7	1	11/25/23 22:05	11/30/23 00:09	7440-70-2	
Lead	ND	ug/L	10.0	2.5	1	11/25/23 22:05	11/30/23 00:09	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/25/23 22:05	11/30/23 00:09	7439-93-2	
Molybdenum	ND	ug/L	10.0	0.78	1	11/25/23 22:05	11/30/23 00:09	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Arsenic	ND	ug/L	1.0	0.10	1	11/27/23 07:13	11/28/23 22:27	7440-38-2	
Barium	**105**	ug/L	1.0	0.14	1	11/27/23 07:13	11/28/23 22:27	7440-39-3	
Cobalt	ND	ug/L	1.0	0.082	1	11/27/23 07:13	11/28/23 22:27	7440-48-4	
Selenium	**14.0**	ug/L	1.0	0.44	1	11/27/23 07:13	11/28/23 22:27	7782-49-2	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
	Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**727**	mg/L	10.0	10.0	1		11/21/23 08:13		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
	Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.6**	Std. Units	0.10	0.10	1		12/04/23 12:40		H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P2R4 Nov 2023
Pace Project No.: 50359842

Sample: AP-3 **Lab ID: 50359842003** Collected: 11/15/23 15:50 Received: 11/16/23 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056								
	Pace Analytical Services - Indianapolis								
Chloride	**14.8**	mg/L	0.25	0.067	1		12/04/23 11:06	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		12/04/23 11:06	16984-48-8	
Sulfate	**165**	mg/L	2.5	1.9	10		12/04/23 11:26	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Boron	**1800**	ug/L	100	6.2	1	11/25/23 22:05	11/30/23 00:11	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/25/23 22:05	11/30/23 00:11	7440-43-9	
Calcium	**168000**	ug/L	1000	67.7	1	11/25/23 22:05	11/30/23 00:11	7440-70-2	
Lead	ND	ug/L	10.0	2.5	1	11/25/23 22:05	11/30/23 00:11	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/25/23 22:05	11/30/23 00:11	7439-93-2	
Molybdenum	ND	ug/L	10.0	0.78	1	11/25/23 22:05	11/30/23 00:11	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Arsenic	ND	ug/L	1.0	0.10	1	11/27/23 07:13	11/28/23 22:31	7440-38-2	
Barium	**34.0**	ug/L	1.0	0.14	1	11/27/23 07:13	11/28/23 22:31	7440-39-3	
Cobalt	ND	ug/L	1.0	0.082	1	11/27/23 07:13	11/28/23 22:31	7440-48-4	
Selenium	**3.1**	ug/L	1.0	0.44	1	11/27/23 07:13	11/28/23 22:31	7782-49-2	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
	Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**682**	mg/L	10.0	10.0	1		11/21/23 08:14		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
	Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		12/04/23 12:40		H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P2R4 Nov 2023
Pace Project No.: 50359842

QC Batch: 765133
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359842001, 50359842002, 50359842003

METHOD BLANK: 3506567 Matrix: Water
Associated Lab Samples: 50359842001, 50359842002, 50359842003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	12/03/23 19:20	
Fluoride	mg/L	ND	0.10	0.017	12/03/23 19:20	
Sulfate	mg/L	ND	0.25	0.19	12/03/23 19:20	

LABORATORY CONTROL SAMPLE: 3506568

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	93	80-120	
Fluoride	mg/L	1	1.0	100	80-120	
Sulfate	mg/L	5	4.6	91	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3506569 3506570

Parameter	Units	50359760005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	231	25	25	245	244	59	52	80-120	1	15	M0
Fluoride	mg/L	ND	1	1	1.0	1.0	96	91	80-120	4	15	
Sulfate	mg/L	472	50	50	501	499	59	55	80-120	0	15	E,M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P2R4 Nov 2023
Pace Project No.: 50359842

QC Batch: 764435
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359842001, 50359842002, 50359842003

METHOD BLANK: 3503916 Matrix: Water
Associated Lab Samples: 50359842001, 50359842002, 50359842003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	11/29/23 23:48	
Cadmium	ug/L	ND	2.0	0.60	11/29/23 23:48	
Calcium	ug/L	ND	1000	67.7	11/29/23 23:48	
Lead	ug/L	ND	10.0	2.5	11/29/23 23:48	
Lithium	ug/L	ND	20.0	6.8	11/29/23 23:48	
Molybdenum	ug/L	ND	10.0	0.78	11/29/23 23:48	

LABORATORY CONTROL SAMPLE: 3503917

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	978	98	80-120	
Cadmium	ug/L	1000	1030	103	80-120	
Calcium	ug/L	10000	10300	103	80-120	
Lead	ug/L	1000	956	96	80-120	
Lithium	ug/L	1000	1010	101	80-120	
Molybdenum	ug/L	1000	1050	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503918 3503919

Parameter	Units	50359836001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	650	1000	1000	1660	1710	100	106	75-125	3	20	
Cadmium	ug/L	ND	1000	1000	1020	1070	102	107	75-125	4	20	
Calcium	ug/L	187000	10000	10000	194000	200000	70	134	75-125	3	20	E,P6
Lead	ug/L	ND	1000	1000	919	952	92	95	75-125	4	20	
Lithium	ug/L	ND	1000	1000	1020	1050	102	105	75-125	3	20	
Molybdenum	ug/L	ND	1000	1000	1040	1090	104	108	75-125	4	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P2R4 Nov 2023
Pace Project No.: 50359842

QC Batch: 764730
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359842001, 50359842002, 50359842003

METHOD BLANK: 3505199 Matrix: Water
Associated Lab Samples: 50359842001, 50359842002, 50359842003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	ug/L	ND	1.0	0.10	11/28/23 20:07	
Barium	ug/L	ND	1.0	0.14	11/28/23 20:07	
Cobalt	ug/L	ND	1.0	0.082	11/28/23 20:07	
Selenium	ug/L	ND	1.0	0.44	11/28/23 20:07	

LABORATORY CONTROL SAMPLE: 3505200

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	40	39.7	99	80-120	
Barium	ug/L	40	39.7	99	80-120	
Cobalt	ug/L	40	40.3	101	80-120	
Selenium	ug/L	40	40.4	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3505201 3505202

Parameter	Units	50359836001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	ND	40	40	39.6	40.1	98	100	75-125	1	20	
Barium	ug/L	26.4	40	40	65.4	65.1	97	97	75-125	0	20	
Cobalt	ug/L	ND	40	40	38.0	37.9	94	94	75-125	0	20	
Selenium	ug/L	4.7	40	40	45.7	43.1	103	96	75-125	6	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P2R4 Nov 2023
Pace Project No.: 50359842

QC Batch: 764109
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359842001, 50359842002, 50359842003

METHOD BLANK: 3502516 Matrix: Water
Associated Lab Samples: 50359842001, 50359842002, 50359842003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/21/23 08:07	

LABORATORY CONTROL SAMPLE: 3502517

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	294	98	80-120	

SAMPLE DUPLICATE: 3502518

Parameter	Units	50359829001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	11600	11800	1	10	

SAMPLE DUPLICATE: 3502519

Parameter	Units	50359843002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	737	733	1	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P2R4 Nov 2023
Pace Project No.: 50359842

QC Batch: 766081
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359842001, 50359842002, 50359842003

SAMPLE DUPLICATE: 3510400

Parameter	Units	50359760006 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.0	7.1	1	2	H3

SAMPLE DUPLICATE: 3510401

Parameter	Units	50359849001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.4	8.3	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P2R4 Nov 2023
Pace Project No.: 50359842

Sample: AP-6B **Lab ID: 50359842001** Collected: 11/15/23 12:00 Received: 11/16/23 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.555 ± 0.607 (0.978) C:NA T:86%**	pCi/L	12/12/23 13:09	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.752 ± 0.423 (0.770) C:85% T:77%**	pCi/L	12/07/23 11:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.31 ± 1.03 (1.75)**	pCi/L	12/12/23 15:33	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P2R4 Nov 2023
Pace Project No.: 50359842

Sample: AP-4B **Lab ID: 50359842002** Collected: 11/15/23 15:10 Received: 11/16/23 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.000 ± 0.411 (0.868) C:NA T:86%**	pCi/L	12/12/23 13:09	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.256 ± 0.383 (0.827) C:82% T:81%**	pCi/L	12/07/23 11:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.256 ± 0.794 (1.70)**	pCi/L	12/12/23 15:33	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P2R4 Nov 2023
Pace Project No.: 50359842

Sample: AP-3 **Lab ID: 50359842003** Collected: 11/15/23 15:50 Received: 11/16/23 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.206 ± 0.448 (0.826) C:NA T:86%**	pCi/L	12/12/23 13:23	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.859 ± 0.495 (0.928) C:79% T:81%**	pCi/L	12/07/23 11:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.07 ± 0.943 (1.75)**	pCi/L	12/12/23 15:33	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P2R4 Nov 2023
Pace Project No.: 50359842

QC Batch: 631080
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359842001, 50359842002, 50359842003

METHOD BLANK: 3076877 Matrix: Water
Associated Lab Samples: 50359842001, 50359842002, 50359842003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.107 ± 0.256 (0.495) C:NA T:89%	pCi/L	12/12/23 13:09	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P2R4 Nov 2023
Pace Project No.: 50359842

QC Batch: 631081
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359842001, 50359842002, 50359842003

METHOD BLANK: 3076878 Matrix: Water
Associated Lab Samples: 50359842001, 50359842002, 50359842003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0919 ± 0.296 (0.669) C:83% T:82%	pCi/L	12/07/23 11:25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg P2R4 Nov 2023
Pace Project No.: 50359842

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P2R4 Nov 2023
Pace Project No.: 50359842

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359842001	**AP-6B**	EPA 9056	765133		
50359842002	**AP-4B**	EPA 9056	765133		
50359842003	**AP-3**	EPA 9056	765133		
50359842001	**AP-6B**	EPA 3010	764435	EPA 6010	765468
50359842002	**AP-4B**	EPA 3010	764435	EPA 6010	765468
50359842003	**AP-3**	EPA 3010	764435	EPA 6010	765468
50359842001	**AP-6B**	EPA 200.2	764730	EPA 6020	764888
50359842002	**AP-4B**	EPA 200.2	764730	EPA 6020	764888
50359842003	**AP-3**	EPA 200.2	764730	EPA 6020	764888
50359842001	**AP-6B**	EPA 903.1	631080		
50359842002	**AP-4B**	EPA 903.1	631080		
50359842003	**AP-3**	EPA 903.1	631080		
50359842001	**AP-6B**	EPA 904.0	631081		
50359842002	**AP-4B**	EPA 904.0	631081		
50359842003	**AP-3**	EPA 904.0	631081		
50359842001	**AP-6B**	Total Radium Calculation	635562		
50359842002	**AP-4B**	Total Radium Calculation	635562		
50359842003	**AP-3**	Total Radium Calculation	635562		
50359842001	**AP-6B**	SM 2540C	764109		
50359842002	**AP-4B**	SM 2540C	764109		
50359842003	**AP-3**	SM 2540C	764109		
50359842001	**AP-6B**	SM 4500-H+B	766081		
50359842002	**AP-4B**	SM 4500-H+B	766081		
50359842003	**AP-3**	SM 4500-H+B	766081		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO# : 50359842

50359842

Pace Analytical
WWW.PACELABS.COM

quest Document

nt fields must be completed accurately.

Page : 1 Of 1

Section A	Section B		
quired Client Information:	Required Project Information:		
mpany: Atlas Indianapolis	Report To: Mark Breting	Attention: - Paula Sedam	
dress: 7988 Centerpoint Drive Suite 100	Copy To:	Company Name: Atlas Indianapolis	
Indianapolis, IN 46256		Address:	Regulatory Agency
ail: mark.breting@oneatlas.com	Purchase Order #:	Pace Quote:	
one: (317)579-4082 Fax:	Project Name: Petersburg Nov 2023 P2R4	Pace Project Manager: Will Statz	State / Location
quested Due Date:	Project #:	Pace Profile #: 10498/51	IN

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): Metals, Total*	TDS/pH	(Cl, F, SO4) IC	Rad-226/228 + Sum	Residual Chlorine (Y/N)	
1	AP-613			11/13/23	1130	11/13/23	1200		5	X		X							X	X	X	X		001
2	AP-4B			11/13/23	1400	11/13/23	1510		5	X		X							X	X	X	X		002
3	AP-3			11/13/23	1540	11/13/23	1550		5	X		X							X	X	X	X		003
4																									
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
als* 6010: B, Pb, Mo, Cd, Ca, Li (6)	11/14/23	11/16	7:45 AM		11/16	7:45				
0: Co, As, Se, Ba, Tl (5)		11/16	10:15 AM		11/16/23	1015	0.7	Y	Y	Y
d 226/228 to Pace PA							1.3			
							0.9			

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Josh O'Brian

SIGNATURE of SAMPLER: DATE Signed: 11-15-23

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 11/16/23 1140 JT

1. **Courier:** ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H

4. **Cooler Temperature(s):** 0.7/0.7 | 1.3/1.3 | 0.8/0.9 | 1.4/1.4

(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓
Short Hold Time Analysis (48 hours or less)? Analysis:		✓
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:	
Rush TAT Requested (4 days or less):		✓
Custody Signatures Present?	✓	
Containers Intact?:	✓	
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓	
Extra labels on Terracore Vials? (soils only)		✓

	Yes	No	N/A
All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		

	Present	Absent	N/A
Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Headspace Wisconsin Sulfide?			✓
Headspace in VOA Vials (>6mm): See Containter Count form for details		✓	No VOA Vials Sent ✓
Trip Blank Present?		✓	
Trip Blank Custody Seals?:			✓

COMMENTS: Cooler 5 - 1.9/1.9, Cooler 6 - 1.4/1.4

COC PAGE 1 **of** 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC									OTHER								
			MeOH (only)																													
			SBS																													
			DI																													
COC Line Item	WGFU	WGKU BG1U	R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																2		2	1									WT	2			
2																↓		↓	↓									↓	2			
3																↓		↓	↓									↓	2			
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 12, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 16, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50359843001	**MW-46B**	Water	11/15/23 11:16	11/16/23 10:15
50359843002	**MW-46I**	Water	11/15/23 13:10	11/16/23 10:15
50359843003	**MW-46A**	Water	11/15/23 15:00	11/16/23 10:15

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50359843001	**MW-46B**	EPA 9056	KBB	4	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359843002	**MW-46I**	EPA 9056	KBB	4	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359843003	**MW-46A**	EPA 9056	KBB	4	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	JPK	6	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	CAW	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359843001	**MW-46B**					
EPA 9056	Chloride	8.0	mg/L	0.25	12/03/23 14:42	
EPA 9056	Fluoride	0.10	mg/L	0.10	12/03/23 14:42	
EPA 9056	Sulfate	93.5	mg/L	2.5	12/03/23 15:00	
EPA 6010	Calcium	137000	ug/L	1000	11/30/23 00:12	
EPA 6010	Iron	3040	ug/L	100	11/30/23 00:12	
EPA 6010	Magnesium	43100	ug/L	1000	11/30/23 00:12	
EPA 6010	Silica	14000	ug/L	450	11/30/23 00:12	N2
EPA 6010	Sodium	6030	ug/L	1000	11/30/23 00:12	
EPA 6010	Iron, Dissolved	2590	ug/L	100	11/30/23 03:53	
EPA 6010	Magnesium, Dissolved	41600	ug/L	1000	11/30/23 03:53	
EPA 6020	Aluminum	253	ug/L	10.0	11/30/23 03:58	
EPA 6020	Barium	82.6	ug/L	1.0	11/30/23 03:58	
EPA 6020	Manganese	1310	ug/L	10.0	11/30/23 10:06	
EPA 6020	Manganese, Dissolved	1370	ug/L	10.0	11/28/23 11:17	
EPA 903.1	Radium-226	0.245 ± 0.295 (0.450) C:NA T:88%	pCi/L		12/12/23 13:23	
EPA 904.0	Radium-228	0.591 ± 0.354 (0.642) C:81% T:80%	pCi/L		12/07/23 11:28	
Total Radium Calculation	Total Radium	0.836 ± 0.649 (1.09)	pCi/L		12/12/23 15:33	
SM 2320B	Alkalinity, Total as CaCO3	420	mg/L	10.0	11/21/23 00:02	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	420	mg/L	10.0	11/21/23 00:02	
SM 2540C	Total Dissolved Solids	520	mg/L	10.0	11/21/23 08:14	
SM 4500-H+B	pH at 25 Degrees C	6.9	Std. Units	0.10	12/04/23 12:42	H3
HACH 8146	Iron, Ferrous	0.54	mg/L	0.20	11/28/23 14:18	H3,N2
EPA 365.1	Phosphate as P04	0.46	mg/L	0.15	12/01/23 13:39	
SM 5310C	Total Organic Carbon	1.7	mg/L	1.0	12/01/23 23:00	
SM 5310C	Dissolved Organic Carbon	2.8	mg/L	1.0	12/03/23 06:56	
50359843002	**MW-46I**					
EPA 9056	Bromide	0.069	mg/L	0.050	12/03/23 18:04	
EPA 9056	Chloride	8.4	mg/L	0.25	12/03/23 18:04	
EPA 9056	Fluoride	0.11	mg/L	0.10	12/03/23 18:04	
EPA 9056	Sulfate	310	mg/L	2.5	12/03/23 18:22	
EPA 6010	Boron	638	ug/L	100	11/30/23 00:13	
EPA 6010	Calcium	155000	ug/L	1000	11/30/23 00:13	
EPA 6010	Iron	5300	ug/L	100	11/30/23 00:13	
EPA 6010	Magnesium	53200	ug/L	1000	11/30/23 00:13	
EPA 6010	Silica	16600	ug/L	450	11/30/23 00:13	N2
EPA 6010	Sodium	7920	ug/L	1000	11/30/23 00:13	
EPA 6010	Boron, Dissolved	614	ug/L	100	11/30/23 03:54	
EPA 6010	Iron, Dissolved	4730	ug/L	100	11/30/23 03:54	
EPA 6010	Magnesium, Dissolved	50300	ug/L	1000	11/30/23 03:54	
EPA 6020	Aluminum	37.9	ug/L	10.0	11/30/23 04:01	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359843002	**MW-46I**					
EPA 6020	Barium	75.6	ug/L	1.0	11/30/23 04:01	
EPA 6020	Manganese	1080	ug/L	10.0	11/30/23 10:09	
EPA 6020	Manganese, Dissolved	1080	ug/L	10.0	11/28/23 11:20	
EPA 903.1	Radium-226	3.10 ± 1.02 (0.829) C:NA T:86%	pCi/L		12/12/23 13:23	
EPA 904.0	Radium-228	1.08 ± 0.419 (0.608) C:80% T:83%	pCi/L		12/07/23 11:28	
Total Radium Calculation	Total Radium	4.18 ± 1.44 (1.44)	pCi/L		12/12/23 15:33	
SM 2320B	Alkalinity, Total as CaCO3	306	mg/L	10.0	11/21/23 00:02	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	306	mg/L	10.0	11/21/23 00:02	
SM 2540C	Total Dissolved Solids	737	mg/L	10.0	11/21/23 08:14	
SM 4500-H+B	pH at 25 Degrees C	7.0	Std. Units	0.10	12/04/23 12:43	H3
EPA 365.1	Phosphate as P04	0.47	mg/L	0.15	12/01/23 13:39	
SM 5310C	Total Organic Carbon	1.5	mg/L	1.0	12/01/23 23:10	
SM 5310C	Dissolved Organic Carbon	3.1	mg/L	1.0	12/03/23 07:07	
50359843003	**MW-46A**					
EPA 9056	Bromide	0.11	mg/L	0.050	12/03/23 15:19	
EPA 9056	Chloride	9.7	mg/L	0.25	12/03/23 15:19	
EPA 9056	Sulfate	431	mg/L	2.5	12/03/23 15:37	
EPA 6010	Boron	1220	ug/L	100	11/30/23 00:15	
EPA 6010	Calcium	193000	ug/L	1000	11/30/23 00:15	
EPA 6010	Iron	10500	ug/L	100	11/30/23 00:15	
EPA 6010	Magnesium	55600	ug/L	1000	11/30/23 00:15	
EPA 6010	Silica	24300	ug/L	450	11/30/23 00:15	N2
EPA 6010	Sodium	9400	ug/L	1000	11/30/23 00:15	
EPA 6010	Boron, Dissolved	1230	ug/L	100	11/30/23 03:56	
EPA 6010	Iron, Dissolved	10000	ug/L	100	11/30/23 03:56	
EPA 6010	Magnesium, Dissolved	56300	ug/L	1000	11/30/23 03:56	
EPA 6020	Aluminum	22.1	ug/L	10.0	11/30/23 04:05	
EPA 6020	Arsenic	2.1	ug/L	1.0	11/30/23 04:05	
EPA 6020	Barium	27.0	ug/L	1.0	11/30/23 04:05	
EPA 6020	Manganese	2710	ug/L	20.0	11/30/23 10:13	
EPA 6020	Manganese, Dissolved	2720	ug/L	20.0	11/28/23 11:24	
EPA 903.1	Radium-226	0.314 ± 0.371 (0.584) C:NA T:91%	pCi/L		12/12/23 13:23	
EPA 904.0	Radium-228	0.341 ± 0.351 (0.724) C:83% T:75%	pCi/L		12/07/23 11:28	
Total Radium Calculation	Total Radium	0.655 ± 0.722 (1.31)	pCi/L		12/12/23 15:33	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359843003	**MW-46A**					
SM 2320B	Alkalinity, Total as CaCO3	324	mg/L	10.0	11/21/23 00:02	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	324	mg/L	10.0	11/21/23 00:02	
SM 2540C	Total Dissolved Solids	912	mg/L	10.0	11/21/23 08:16	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	12/04/23 12:44	H3
EPA 365.1	Phosphate as P04	1.1	mg/L	0.15	12/01/23 13:40	
SM 5310C	Total Organic Carbon	2.1	mg/L	1.0	12/01/23 23:20	
SM 5310C	Dissolved Organic Carbon	2.6	mg/L	1.0	12/03/23 07:38	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

Sample: MW-46B **Lab ID: 50359843001** Collected: 11/15/23 11:16 Received: 11/16/23 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	ND	mg/L	0.050	0.0090	1		12/03/23 14:42	24959-67-9	
Chloride	**8.0**	mg/L	0.25	0.067	1		12/03/23 14:42	16887-00-6	
Fluoride	**0.10**	mg/L	0.10	0.017	1		12/03/23 14:42	16984-48-8	
Sulfate	**93.5**	mg/L	2.5	1.9	10		12/03/23 15:00	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	ND	ug/L	100	6.2	1	11/25/23 22:05	11/30/23 00:12	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/25/23 22:05	11/30/23 00:12	7440-43-9	
Calcium	**137000**	ug/L	1000	67.7	1	11/25/23 22:05	11/30/23 00:12	7440-70-2	
Iron	**3040**	ug/L	100	30.0	1	11/25/23 22:05	11/30/23 00:12	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	11/25/23 22:05	11/30/23 00:12	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/25/23 22:05	11/30/23 00:12	7439-93-2	
Magnesium	**43100**	ug/L	1000	33.6	1	11/25/23 22:05	11/30/23 00:12	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	11/25/23 22:05	11/30/23 00:12	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	11/25/23 22:05	11/30/23 00:12	7440-09-7	
Silica	**14000**	ug/L	450		1	11/25/23 22:05	11/30/23 00:12	7631-86-9	N2
Sodium	**6030**	ug/L	1000	54.8	1	11/25/23 22:05	11/30/23 00:12	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	ND	ug/L	100	6.2	1	11/29/23 16:11	11/30/23 03:53	7440-42-8	
Iron, Dissolved	**2590**	ug/L	100	30.0	1	11/29/23 16:11	11/30/23 03:53	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/29/23 16:11	11/30/23 03:53	7439-93-2	
Magnesium, Dissolved	**41600**	ug/L	1000	33.6	1	11/29/23 16:11	11/30/23 03:53	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	11/29/23 16:11	11/30/23 03:53	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	97.8	1	11/29/23 16:11	11/30/23 03:53	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**253**	ug/L	10.0	2.3	1	11/28/23 16:23	11/30/23 03:58	7429-90-5	
Arsenic	ND	ug/L	1.0	0.075	1	11/28/23 16:23	11/30/23 03:58	7440-38-2	
Barium	**82.6**	ug/L	1.0	0.077	1	11/28/23 16:23	11/30/23 03:58	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/28/23 16:23	11/30/23 03:58	7440-48-4	
Manganese	**1310**	ug/L	10.0	1.7	10	11/28/23 16:23	11/30/23 10:06	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	11/28/23 16:23	11/30/23 03:58	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	11/22/23 07:28	11/28/23 16:35	7429-90-5	
Manganese, Dissolved	**1370**	ug/L	10.0	1.7	10	11/22/23 07:28	11/28/23 11:17	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

Sample: MW-46B **Lab ID: 50359843001** Collected: 11/15/23 11:16 Received: 11/16/23 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**420**	mg/L	10.0	10.0	1		11/21/23 00:02		
Alkalinity,Bicarbonate (CaCO3)	**420**	mg/L	10.0	10.0	1		11/21/23 00:02		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/21/23 00:02		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**520**	mg/L	10.0	10.0	1		11/21/23 08:14		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.9**	Std. Units	0.10	0.10	1		12/04/23 12:42		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/16/23 16:55	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**0.54**	mg/L	0.20	0.035	1		11/28/23 14:18	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/17/23 00:45	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/17/23 00:45	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.46**	mg/L	0.15	0.15	1	12/01/23 10:00	12/01/23 13:39		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.7**	mg/L	1.0	0.24	1		12/01/23 23:00	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.8**	mg/L	1.0	0.24	1		12/03/23 06:56		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

Sample: MW-46I **Lab ID: 50359843002** Collected: 11/15/23 13:10 Received: 11/16/23 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.069**	mg/L	0.050	0.0090	1		12/03/23 18:04	24959-67-9	
Chloride	**8.4**	mg/L	0.25	0.067	1		12/03/23 18:04	16887-00-6	
Fluoride	**0.11**	mg/L	0.10	0.017	1		12/03/23 18:04	16984-48-8	
Sulfate	**310**	mg/L	2.5	1.9	10		12/03/23 18:22	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**638**	ug/L	100	6.2	1	11/25/23 22:05	11/30/23 00:13	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/25/23 22:05	11/30/23 00:13	7440-43-9	
Calcium	**155000**	ug/L	1000	67.7	1	11/25/23 22:05	11/30/23 00:13	7440-70-2	
Iron	**5300**	ug/L	100	30.0	1	11/25/23 22:05	11/30/23 00:13	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	11/25/23 22:05	11/30/23 00:13	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/25/23 22:05	11/30/23 00:13	7439-93-2	
Magnesium	**53200**	ug/L	1000	33.6	1	11/25/23 22:05	11/30/23 00:13	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	11/25/23 22:05	11/30/23 00:13	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	11/25/23 22:05	11/30/23 00:13	7440-09-7	
Silica	**16600**	ug/L	450		1	11/25/23 22:05	11/30/23 00:13	7631-86-9	N2
Sodium	**7920**	ug/L	1000	54.8	1	11/25/23 22:05	11/30/23 00:13	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**614**	ug/L	100	6.2	1	11/29/23 16:11	11/30/23 03:54	7440-42-8	
Iron, Dissolved	**4730**	ug/L	100	30.0	1	11/29/23 16:11	11/30/23 03:54	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/29/23 16:11	11/30/23 03:54	7439-93-2	
Magnesium, Dissolved	**50300**	ug/L	1000	33.6	1	11/29/23 16:11	11/30/23 03:54	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	11/29/23 16:11	11/30/23 03:54	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	97.8	1	11/29/23 16:11	11/30/23 03:54	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**37.9**	ug/L	10.0	2.3	1	11/28/23 16:23	11/30/23 04:01	7429-90-5	
Arsenic	ND	ug/L	1.0	0.075	1	11/28/23 16:23	11/30/23 04:01	7440-38-2	
Barium	**75.6**	ug/L	1.0	0.077	1	11/28/23 16:23	11/30/23 04:01	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/28/23 16:23	11/30/23 04:01	7440-48-4	
Manganese	**1080**	ug/L	10.0	1.7	10	11/28/23 16:23	11/30/23 10:09	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	11/28/23 16:23	11/30/23 04:01	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	11/22/23 07:28	11/28/23 16:42	7429-90-5	
Manganese, Dissolved	**1080**	ug/L	10.0	1.7	10	11/22/23 07:28	11/28/23 11:20	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

Sample: MW-46I **Lab ID: 50359843002** Collected: 11/15/23 13:10 Received: 11/16/23 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**306**	mg/L	10.0	10.0	1		11/21/23 00:02		
Alkalinity,Bicarbonate (CaCO3)	**306**	mg/L	10.0	10.0	1		11/21/23 00:02		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/21/23 00:02		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**737**	mg/L	10.0	10.0	1		11/21/23 08:14		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.0**	Std. Units	0.10	0.10	1		12/04/23 12:43		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/16/23 16:55	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/28/23 14:18	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/17/23 01:19	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/17/23 01:19	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.47**	mg/L	0.15	0.15	1	12/01/23 10:00	12/01/23 13:39		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.5**	mg/L	1.0	0.24	1		12/01/23 23:10	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.1**	mg/L	1.0	0.24	1		12/03/23 07:07		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

Sample: MW-46A **Lab ID: 50359843003** Collected: 11/15/23 15:00 Received: 11/16/23 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.11**	mg/L	0.050	0.0090	1		12/03/23 15:19	24959-67-9	
Chloride	**9.7**	mg/L	0.25	0.067	1		12/03/23 15:19	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		12/03/23 15:19	16984-48-8	
Sulfate	**431**	mg/L	2.5	1.9	10		12/03/23 15:37	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**1220**	ug/L	100	6.2	1	11/25/23 22:05	11/30/23 00:15	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/25/23 22:05	11/30/23 00:15	7440-43-9	
Calcium	**193000**	ug/L	1000	67.7	1	11/25/23 22:05	11/30/23 00:15	7440-70-2	
Iron	**10500**	ug/L	100	30.0	1	11/25/23 22:05	11/30/23 00:15	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	11/25/23 22:05	11/30/23 00:15	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/25/23 22:05	11/30/23 00:15	7439-93-2	
Magnesium	**55600**	ug/L	1000	33.6	1	11/25/23 22:05	11/30/23 00:15	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	11/25/23 22:05	11/30/23 00:15	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	11/25/23 22:05	11/30/23 00:15	7440-09-7	
Silica	**24300**	ug/L	450		1	11/25/23 22:05	11/30/23 00:15	7631-86-9	N2
Sodium	**9400**	ug/L	1000	54.8	1	11/25/23 22:05	11/30/23 00:15	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1230**	ug/L	100	6.2	1	11/29/23 16:11	11/30/23 03:56	7440-42-8	
Iron, Dissolved	**10000**	ug/L	100	30.0	1	11/29/23 16:11	11/30/23 03:56	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	11/29/23 16:11	11/30/23 03:56	7439-93-2	
Magnesium, Dissolved	**56300**	ug/L	1000	33.6	1	11/29/23 16:11	11/30/23 03:56	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	11/29/23 16:11	11/30/23 03:56	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	97.8	1	11/29/23 16:11	11/30/23 03:56	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**22.1**	ug/L	10.0	2.3	1	11/28/23 16:23	11/30/23 04:05	7429-90-5	
Arsenic	**2.1**	ug/L	1.0	0.075	1	11/28/23 16:23	11/30/23 04:05	7440-38-2	
Barium	**27.0**	ug/L	1.0	0.077	1	11/28/23 16:23	11/30/23 04:05	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	11/28/23 16:23	11/30/23 04:05	7440-48-4	
Manganese	**2710**	ug/L	20.0	3.4	20	11/28/23 16:23	11/30/23 10:13	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	11/28/23 16:23	11/30/23 04:05	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	11/22/23 07:28	11/28/23 17:18	7429-90-5	
Manganese, Dissolved	**2720**	ug/L	20.0	3.4	20	11/22/23 07:28	11/28/23 11:24	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

Sample: MW-46A **Lab ID: 50359843003** Collected: 11/15/23 15:00 Received: 11/16/23 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**324**	mg/L	10.0	10.0	1		11/21/23 00:02		
Alkalinity,Bicarbonate (CaCO3)	**324**	mg/L	10.0	10.0	1		11/21/23 00:02		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/21/23 00:02		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**912**	mg/L	10.0	10.0	1		11/21/23 08:16		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		12/04/23 12:44		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/16/23 16:55	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/28/23 14:19	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/17/23 01:39	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/17/23 01:39	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**1.1**	mg/L	0.15	0.15	1	12/01/23 10:00	12/01/23 13:40		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**2.1**	mg/L	1.0	0.24	1		12/01/23 23:20	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.6**	mg/L	1.0	0.24	1		12/03/23 07:38		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

QC Batch: 765136
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359843001, 50359843002, 50359843003

METHOD BLANK: 3506579 Matrix: Water
Associated Lab Samples: 50359843001, 50359843002, 50359843003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	12/03/23 13:38	
Chloride	mg/L	ND	0.25	0.067	12/03/23 13:38	
Fluoride	mg/L	ND	0.10	0.017	12/03/23 13:38	
Sulfate	mg/L	ND	0.25	0.19	12/03/23 13:38	

LABORATORY CONTROL SAMPLE: 3506580

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.95	95	80-120	
Chloride	mg/L	2.5	2.4	94	80-120	
Fluoride	mg/L	1	0.98	98	80-120	
Sulfate	mg/L	5	4.8	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3506581 3506582

Parameter	Units	50359849001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	ND	1	1	0.94	0.95	94	95	80-120	0	15	
Chloride	mg/L	25.5	25	25	49.7	49.7	97	97	80-120	0	15	
Fluoride	mg/L	0.28	1	1	1.3	1.3	99	99	80-120	0	15	
Sulfate	mg/L	40.2	5	5	45.4	45.4	103	103	80-120	0	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3507426 3507427

Parameter	Units	50359760001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	0.14	1	1	1.1	1.1	93	94	80-120	1	15	
Chloride	mg/L	90.3	25	25	116	113	103	92	80-120	2	15	
Fluoride	mg/L	0.11	1	1	1.1	1.1	101	102	80-120	1	15	
Sulfate	mg/L	174	50	50	222	219	97	91	80-120	2	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

QC Batch: 764435
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359843001, 50359843002, 50359843003

METHOD BLANK: 3503916 Matrix: Water
Associated Lab Samples: 50359843001, 50359843002, 50359843003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	11/29/23 23:48	
Cadmium	ug/L	ND	2.0	0.60	11/29/23 23:48	
Calcium	ug/L	ND	1000	67.7	11/29/23 23:48	
Iron	ug/L	ND	100	30.0	11/29/23 23:48	
Lead	ug/L	ND	10.0	2.5	11/29/23 23:48	
Lithium	ug/L	ND	20.0	6.8	11/29/23 23:48	
Magnesium	ug/L	ND	1000	33.6	11/29/23 23:48	
Molybdenum	ug/L	ND	10.0	0.78	11/29/23 23:48	
Potassium	ug/L	ND	1000	97.8	11/29/23 23:48	
Silica	ug/L	ND	450		11/29/23 23:48	N2
Sodium	ug/L	ND	1000	54.8	11/29/23 23:48	

LABORATORY CONTROL SAMPLE: 3503917

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	978	98	80-120	
Cadmium	ug/L	1000	1030	103	80-120	
Calcium	ug/L	10000	10300	103	80-120	
Iron	ug/L	10000	10300	103	80-120	
Lead	ug/L	1000	956	96	80-120	
Lithium	ug/L	1000	1010	101	80-120	
Magnesium	ug/L	10000	9820	98	80-120	
Molybdenum	ug/L	1000	1050	105	80-120	
Potassium	ug/L	10000	10200	102	80-120	
Silica	ug/L	10700	11000	103	80-120	N2
Sodium	ug/L	10000	9990	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503918 3503919

Parameter	Units	50359836001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	650	1000	1000	1660	1710	100	106	75-125	3	20	
Cadmium	ug/L	ND	1000	1000	1020	1070	102	107	75-125	4	20	
Calcium	ug/L	187000	10000	10000	194000	200000	70	134	75-125	3	20	E,P6
Iron	ug/L	ND	10000	10000	10000	10400	100	103	75-125	3	20	
Lead	ug/L	ND	1000	1000	919	952	92	95	75-125	4	20	
Lithium	ug/L	ND	1000	1000	1020	1050	102	105	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503918 3503919

Parameter	Units	50359836001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Magnesium	ug/L	36900	10000	10000	45900	47200	91	104	75-125	3	20	
Molybdenum	ug/L	ND	1000	1000	1040	1090	104	108	75-125	4	20	
Potassium	ug/L	ND	10000	10000	10500	10900	102	106	75-125	4	20	
Silica	ug/L	13300	10700	10700	24100	24900	101	108	75-125	3	20	N2
Sodium	ug/L	7630	10000	10000	17400	17900	98	102	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

QC Batch: 765309
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359843001, 50359843002, 50359843003

METHOD BLANK: 3507186 Matrix: Water
Associated Lab Samples: 50359843001, 50359843002, 50359843003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	11/30/23 03:22	
Iron, Dissolved	ug/L	ND	100	30.0	11/30/23 03:22	
Lithium, Dissolved	ug/L	ND	20.0	6.8	11/30/23 03:22	
Magnesium, Dissolved	ug/L	ND	1000	33.6	11/30/23 03:22	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	11/30/23 03:22	
Potassium, Dissolved	ug/L	ND	1000	97.8	11/30/23 03:22	

LABORATORY CONTROL SAMPLE: 3507187

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	954	95	80-120	
Iron, Dissolved	ug/L	10000	10200	102	80-120	
Lithium, Dissolved	ug/L	1000	1010	101	80-120	
Magnesium, Dissolved	ug/L	10000	9720	97	80-120	
Molybdenum, Dissolved	ug/L	1000	1040	104	80-120	
Potassium, Dissolved	ug/L	10000	10100	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3507188 3507189

Parameter	Units	50359760001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	1190	1000	1000	2130	2110	94	92	75-125	1	20	
Iron, Dissolved	ug/L	4440	10000	10000	13900	13900	94	95	75-125	1	20	
Lithium, Dissolved	ug/L	ND	1000	1000	974	977	96	96	75-125	0	20	
Magnesium, Dissolved	ug/L	42100	10000	10000	49800	50100	77	80	75-125	1	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1000	1010	100	101	75-125	1	20	
Potassium, Dissolved	ug/L	5380	10000	10000	15000	15000	96	97	75-125	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3507190 3507191

Parameter	Units	50359760005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	2850	1000	1000	3780	3760	93	91	75-125	1	20	
Iron, Dissolved	ug/L	2290	10000	10000	11800	11900	95	96	75-125	1	20	
Lithium, Dissolved	ug/L	57.1	1000	1000	1010	1020	96	96	75-125	0	20	
Magnesium, Dissolved	ug/L	54000	10000	10000	61900	61900	79	79	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3507190 3507191

Parameter	Units	50359760005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Molybdenum, Dissolved	ug/L	18.8	1000	1000	1020	1030	101	101	75-125	1	20	
Potassium, Dissolved	ug/L	10200	10000	10000	19800	19700	95	95	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

QC Batch: 764968
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359843001, 50359843002, 50359843003

METHOD BLANK: 3505861 Matrix: Water
Associated Lab Samples: 50359843001, 50359843002, 50359843003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	2.3	11/30/23 03:41	
Arsenic	ug/L	ND	1.0	0.075	11/30/23 03:41	
Barium	ug/L	ND	1.0	0.077	11/30/23 03:41	
Cobalt	ug/L	ND	1.0	0.046	11/30/23 03:41	
Manganese	ug/L	ND	1.0	0.17	11/30/23 03:41	
Selenium	ug/L	ND	1.0	0.20	11/30/23 03:41	

LABORATORY CONTROL SAMPLE: 3505862

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	395	99	80-120	
Arsenic	ug/L	40	38.9	97	80-120	
Barium	ug/L	40	39.1	98	80-120	
Cobalt	ug/L	40	40.8	102	80-120	
Manganese	ug/L	40	41.3	103	80-120	
Selenium	ug/L	40	39.9	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3505863 3505864

Parameter	Units	50359844001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	70.9	400	400	461	454	97	96	75-125	2	20	
Arsenic	ug/L	1.2	40	40	40.2	39.8	97	96	75-125	1	20	
Barium	ug/L	51.3	40	40	92.0	92.4	102	103	75-125	1	20	
Cobalt	ug/L	ND	40	40	39.0	39.1	97	97	75-125	0	20	
Manganese	ug/L	1560	40	40	1600	1630	95	173	75-125	2	20	E,P6
Selenium	ug/L	ND	40	40	39.9	40.8	99	102	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

QC Batch: 764330
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359843001, 50359843002, 50359843003

METHOD BLANK: 3503429 Matrix: Water
Associated Lab Samples: 50359843001, 50359843002, 50359843003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.3	11/27/23 22:57	
Manganese, Dissolved	ug/L	ND	1.0	0.17	11/27/23 22:57	

LABORATORY CONTROL SAMPLE: 3503430

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	400	100	80-120	
Manganese, Dissolved	ug/L	40	40.7	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503431 3503432

Parameter	Units	50359710001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	394	397	98	99	75-125	1	20	
Manganese, Dissolved	ug/L	ND	40	40	40.4	40.8	100	101	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

QC Batch: 764115
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359843001, 50359843002, 50359843003

METHOD BLANK: 3502582 Matrix: Water
Associated Lab Samples: 50359843001, 50359843002, 50359843003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/21/23 00:02	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/21/23 00:02	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/21/23 00:02	

LABORATORY CONTROL SAMPLE: 3502583

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.1	100	90-110	

SAMPLE DUPLICATE: 3502584

Parameter	Units	50359836001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	298	305	3	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	298	305	3	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

QC Batch: 764109
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359843001, 50359843002, 50359843003

METHOD BLANK: 3502516 Matrix: Water
Associated Lab Samples: 50359843001, 50359843002, 50359843003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/21/23 08:07	

LABORATORY CONTROL SAMPLE: 3502517

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	294	98	80-120	

SAMPLE DUPLICATE: 3502518

Parameter	Units	50359829001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	11600	11800	1	10	

SAMPLE DUPLICATE: 3502519

Parameter	Units	50359843002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	737	733	1	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

QC Batch: 766081
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359843001, 50359843002, 50359843003

SAMPLE DUPLICATE: 3510400

Parameter	Units	50359760006 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.0	7.1	1	2	H3

SAMPLE DUPLICATE: 3510401

Parameter	Units	50359849001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.4	8.3	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

QC Batch: 763457
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359843001, 50359843002, 50359843003

METHOD BLANK: 3499503 Matrix: Water
Associated Lab Samples: 50359843001, 50359843002, 50359843003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/16/23 16:55	

LABORATORY CONTROL SAMPLE: 3499504

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3499505 3499506

Parameter	Units	50359843002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.53	0.52	105	103	90-110	2	20	

MATRIX SPIKE SAMPLE: 3499507

Parameter	Units	50359859002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.59	111	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

QC Batch: 765058
QC Batch Method: HACH 8146
Analysis Method: HACH 8146
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359843001, 50359843002, 50359843003

METHOD BLANK: 3506112 Matrix: Water
Associated Lab Samples: 50359843001, 50359843002, 50359843003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/28/23 14:17	H3,N2

LABORATORY CONTROL SAMPLE: 3506113

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	0.98	98	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3506114 3506115

Parameter	Units	50359882002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.1	106	106	90-110	0	20	H3,N2

MATRIX SPIKE SAMPLE: 3506116

Parameter	Units	50360217001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.1	106	90-110	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

QC Batch: 763503
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359843001

METHOD BLANK: 3499825 Matrix: Water
Associated Lab Samples: 50359843001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/17/23 00:18	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/17/23 00:18	

LABORATORY CONTROL SAMPLE: 3499826

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	103	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3499827 3499828

Parameter	Units	50359836001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	2.2	1	1	3.1	3.1	97	97	90-110	0	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.1	1.1	105	105	90-110	0	20	

MATRIX SPIKE SAMPLE: 3499829

Parameter	Units	50359836003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	8.8	10	19.0	102	90-110	
Nitrogen, Nitrite	mg/L	ND	10	10.5	105	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

QC Batch: 763504
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359843002, 50359843003

METHOD BLANK: 3499830 Matrix: Water
Associated Lab Samples: 50359843002, 50359843003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/17/23 02:41	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/17/23 02:41	

LABORATORY CONTROL SAMPLE: 3499831

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	102	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	104	90-110	

MATRIX SPIKE SAMPLE: 3499832

Parameter	Units	50359827002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	0.012J	1	1.0	100	90-110	
Nitrogen, Nitrite	mg/L	0.010J	1	1.0	103	90-110	

MATRIX SPIKE SAMPLE: 3499833

Parameter	Units	50359827005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	5	5.0	99	90-110	
Nitrogen, Nitrite	mg/L	ND	5	5.3	105	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

QC Batch: 765749
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359843001, 50359843002, 50359843003

METHOD BLANK: 3509048 Matrix: Water
Associated Lab Samples: 50359843001, 50359843002, 50359843003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	12/01/23 13:24	

LABORATORY CONTROL SAMPLE: 3509049

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3509050 3509051

Parameter	Units	50359827005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.7	1.6				2		

MATRIX SPIKE SAMPLE: 3509052

Parameter	Units	50359827006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	ND		1.6			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

QC Batch: 765310
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359843001, 50359843002, 50359843003

METHOD BLANK: 3507193 Matrix: Water
Associated Lab Samples: 50359843001, 50359843002, 50359843003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	12/01/23 17:28	

LABORATORY CONTROL SAMPLE: 3507194

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3507195 3507196

Parameter	Units	50359797005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	ND	10	10	10.1	10.1	99	99	80-120	0	20	

MATRIX SPIKE SAMPLE: 3507197

Parameter	Units	50359797006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	ND	10	10.1	99	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

QC Batch: 765968
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359843001, 50359843002, 50359843003

METHOD BLANK: 3510138 Matrix: Water
Associated Lab Samples: 50359843001, 50359843002, 50359843003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	12/03/23 03:58	

LABORATORY CONTROL SAMPLE: 3510139

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3510140 3510141

Parameter	Units	50359760005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.5	10	10	11.8	11.9	94	94	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3510142 3510143

Parameter	Units	50359882002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.7	10	10	11.4	11.5	97	98	80-120	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

Sample: MW-46B **Lab ID: 50359843001** Collected: 11/15/23 11:16 Received: 11/16/23 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.245 ± 0.295 (0.450) C:NA T:88%**	pCi/L	12/12/23 13:23	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.591 ± 0.354 (0.642) C:81% T:80%**	pCi/L	12/07/23 11:28	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.836 ± 0.649 (1.09)**	pCi/L	12/12/23 15:33	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

Sample: MW-46I **Lab ID: 50359843002** Collected: 11/15/23 13:10 Received: 11/16/23 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**3.10 ± 1.02 (0.829) C:NA T:86%**	pCi/L	12/12/23 13:23	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.08 ± 0.419 (0.608) C:80% T:83%**	pCi/L	12/07/23 11:28	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**4.18 ± 1.44 (1.44)**	pCi/L	12/12/23 15:33	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

Sample: MW-46A **Lab ID: 50359843003** Collected: 11/15/23 15:00 Received: 11/16/23 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.314 ± 0.371 (0.584) C:NA T:91%**	pCi/L	12/12/23 13:23	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.341 ± 0.351 (0.724) C:83% T:75%**	pCi/L	12/07/23 11:28	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.655 ± 0.722 (1.31)**	pCi/L	12/12/23 15:33	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

QC Batch: 631080
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359843001, 50359843002, 50359843003

METHOD BLANK: 3076877 Matrix: Water
Associated Lab Samples: 50359843001, 50359843002, 50359843003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.107 ± 0.256 (0.495) C:NA T:89%	pCi/L	12/12/23 13:09	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

QC Batch: 631081
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359843001, 50359843002, 50359843003

METHOD BLANK: 3076878
Matrix: Water
Associated Lab Samples: 50359843001, 50359843002, 50359843003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0919 ± 0.296 (0.669) C:83% T:82%	pCi/L	12/07/23 11:25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359843001	**MW-46B**	EPA 9056	765136		
50359843002	**MW-46I**	EPA 9056	765136		
50359843003	**MW-46A**	EPA 9056	765136		
50359843001	**MW-46B**	EPA 3010	764435	EPA 6010	765468
50359843002	**MW-46I**	EPA 3010	764435	EPA 6010	765468
50359843003	**MW-46A**	EPA 3010	764435	EPA 6010	765468
50359843001	**MW-46B**	EPA 3010	765309	EPA 6010	765474
50359843002	**MW-46I**	EPA 3010	765309	EPA 6010	765474
50359843003	**MW-46A**	EPA 3010	765309	EPA 6010	765474
50359843001	**MW-46B**	EPA 200.2	764968	EPA 6020	765197
50359843002	**MW-46I**	EPA 200.2	764968	EPA 6020	765197
50359843003	**MW-46A**	EPA 200.2	764968	EPA 6020	765197
50359843001	**MW-46B**	EPA 200.2	764330	EPA 6020	764576
50359843002	**MW-46I**	EPA 200.2	764330	EPA 6020	764576
50359843003	**MW-46A**	EPA 200.2	764330	EPA 6020	764576
50359843001	**MW-46B**	EPA 903.1	631080		
50359843002	**MW-46I**	EPA 903.1	631080		
50359843003	**MW-46A**	EPA 903.1	631080		
50359843001	**MW-46B**	EPA 904.0	631081		
50359843002	**MW-46I**	EPA 904.0	631081		
50359843003	**MW-46A**	EPA 904.0	631081		
50359843001	**MW-46B**	Total Radium Calculation	635562		
50359843002	**MW-46I**	Total Radium Calculation	635562		
50359843003	**MW-46A**	Total Radium Calculation	635562		
50359843001	**MW-46B**	SM 2320B	764115		
50359843002	**MW-46I**	SM 2320B	764115		
50359843003	**MW-46A**	SM 2320B	764115		
50359843001	**MW-46B**	SM 2540C	764109		
50359843002	**MW-46I**	SM 2540C	764109		
50359843003	**MW-46A**	SM 2540C	764109		
50359843001	**MW-46B**	SM 4500-H+B	766081		
50359843002	**MW-46I**	SM 4500-H+B	766081		
50359843003	**MW-46A**	SM 4500-H+B	766081		
50359843001	**MW-46B**	SM 4500-S2-D	763457		
50359843002	**MW-46I**	SM 4500-S2-D	763457		
50359843003	**MW-46A**	SM 4500-S2-D	763457		
50359843001	**MW-46B**	HACH 8146	765058		
50359843002	**MW-46I**	HACH 8146	765058		
50359843003	**MW-46A**	HACH 8146	765058		
50359843001	**MW-46B**	EPA 353.2	763503		
50359843002	**MW-46I**	EPA 353.2	763504		
50359843003	**MW-46A**	EPA 353.2	763504		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359843

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359843001	**MW-46B**	EPA 365.1	765749	EPA 365.1	765840
50359843002	**MW-46I**	EPA 365.1	765749	EPA 365.1	765840
50359843003	**MW-46A**	EPA 365.1	765749	EPA 365.1	765840
50359843001	**MW-46B**	SM 5310C	765310		
50359843002	**MW-46I**	SM 5310C	765310		
50359843003	**MW-46A**	SM 5310C	765310		
50359843001	**MW-46B**	SM 5310C	765968		
50359843002	**MW-46I**	SM 5310C	765968		
50359843003	**MW-46A**	SM 5310C	765968		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO# : 50359843

50359843

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A
Required Client Information:

Company:	Atlas Indianapolis
Address:	7988 Centerpoint Drive Suite 100
	Indianapolis, IN 46256
Email:	mark.breting@oneatlas.com
Phone:	(317)579-4082 Fax:
Requested Due Date:	

Required Project Information:

Report To:	Mark Breting
Copy To:	
Purchase Order #:	
Project Name:	Petersburg P4R4 Nov 2023
Project #:	

Section C
Invoice Information:

Attention:	Accounts Payable - Paula Sedam
Company Name:	Atlas Indianapolis
Address:	
Pace Quote:	
Pace Project Manager:	Will Statz
Pace Profile #:	10498/53

Regulatory Agency

State / Location
IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO2, NO3 Wet	(Br, Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered** (Y)	Alkalinity*, Ferrous Iron, pH	TOC by 5310C	DOC by 5310C (Y)	Sulfide	Phosphate	Rad-226/228 + Sum			Residual Chlorine (Y/N)	
1	MW-46B	WT	G	11-15	1100	11-15	1116		11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				001
2	MW-46I	WT	G	11-15	1250	11-15	1310		11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				002
3	MW-46A	WT	G	11-15	1435	11-15	1500		11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				003
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
* Metals: 6010 (B, Cd, Fe, Pb, Mo, Ca, Mg, Na, K, Li, sila) (11)	Myllah Bertram	11-15-23	1600	[signature]	11-16	7:45 AM
6020 (Al, Mn, Co, As, Se, Ba) (6)	[signature]	11-16	10:15 AM	[signature]	11/16/23	1015
** Dissolved FF 6010 (B, Fe, Mo, Mg, K, Li) (6) FF 6020 (Al, Mn) (2)						
Rad 226/2228 to Pace PA						

SAMPLE CONDITIONS

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
0.7 / 1.3	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Myllah Bertram

SIGNATURE of SAMPLER: [signature]

DATE Signed: 11-15-23

F-IN-Q-290-rev.23, 26Jun2023

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 11/16/23 1140 QT

1. **Courier:** ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H

4. **Cooler Temperature(s):** 0.7/0.7 | 1.3/1.3 | 0.9/0.9 | 1.4/1.4
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓
Short Hold Time Analysis (48 hours or less)? **Analysis:** Nitrates	✓	
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 1400	
Rush TAT Requested (4 days or less):		✓
Custody Signatures Present?	✓	
Containers Intact?:	✓	
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓	
Extra labels on Terracore Vials? (soils only)		✓

	Yes	No	N/A
All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** ~~HNO3 (<2)~~ ~~H2SO4 (<2)~~ NaOH (>10) ~~NaOH/ZnAc (>9)~~ Any non-conformance to pH recommendations will be noted on the container count form	✓		
	Present	Absent	N/A
Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Headspace Wisconsin Sulfide?			✓
	Present	Absent	No VOA Vials Sent
Headspace in VOA Vials (>6mm): See Containter Count form for details		✓	✓
Trip Blank Present?		✓	
Trip Blank Custody Seals?:			✓

COMMENTS: Cooler 5 - 1.9/1.9, Cooler 6 - 1.4/1.4

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1												1				2	1	2	1				1					W	✓	✓		✓
2												↓	↓			↓	↓	↓	↓	↓	↓		↓					↓	✓	✓		✓
3												↓	↓			↓	↓	↓	↓	↓	↓		↓					↓	✓	✓		✓
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP3R	250mL Unpres. FF SO4/OH buffer
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 08, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on November 16, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50359882001	**MW-47B**	Water	11/16/23 10:35	11/16/23 17:00
50359882002	**MW-47I**	Water	11/16/23 13:30	11/16/23 17:00
50359882003	**Dup-11**	Water	11/16/23 08:00	11/16/23 17:00
50359882004	**MW-47A**	Water	11/16/23 12:30	11/16/23 17:00
50359882005	**MW-47I MS**	Water	11/16/23 13:30	11/16/23 15:00
50359882006	**MW-47I MSD**	Water	11/16/23 13:30	11/16/23 15:00

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50359882001	**MW-47B**	EPA 9056	KBB	4	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	MGM	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	MMS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359882002	**MW-47I**	EPA 9056	KBB	4	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	MGM	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	MMS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359882003	**Dup-11**	EPA 9056	KBB	4	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	MTM	6	PASI-I

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	MGM	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	MMS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359882004	**MW-47A**	EPA 9056	KBB	4	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	MTM	6	PASI-I
		EPA 6020	MGM	6	PASI-I
		EPA 6020	MGM	2	PASI-I
		EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	BEP	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	MMS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50359882005	**MW-47I MS**	EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
50359882006	**MW-47I MSD**	EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359882001	**MW-47B**					
EPA 9056	Bromide	0.059	mg/L	0.050	12/04/23 08:06	
EPA 9056	Chloride	15.7	mg/L	0.25	12/04/23 08:06	
EPA 9056	Fluoride	0.11	mg/L	0.10	12/04/23 08:06	
EPA 9056	Sulfate	43.9	mg/L	0.25	12/04/23 08:06	
EPA 6010	Calcium	192000	ug/L	1000	12/01/23 21:19	
EPA 6010	Iron	2440	ug/L	100	12/01/23 21:19	
EPA 6010	Magnesium	45700	ug/L	1000	12/01/23 21:19	
EPA 6010	Silica	16500	ug/L	450	12/01/23 21:19	N2
EPA 6010	Sodium	8810	ug/L	1000	12/01/23 21:19	
EPA 6010	Iron, Dissolved	2250	ug/L	100	12/01/23 15:58	
EPA 6010	Magnesium, Dissolved	45900	ug/L	1000	12/01/23 15:58	
EPA 6020	Arsenic	1.9	ug/L	1.0	11/30/23 19:59	
EPA 6020	Barium	104	ug/L	1.0	11/30/23 19:59	
EPA 6020	Cobalt	2.5	ug/L	1.0	11/30/23 19:59	
EPA 6020	Manganese	630	ug/L	5.0	12/02/23 00:00	
EPA 6020	Manganese, Dissolved	637	ug/L	5.0	12/01/23 21:28	
EPA 903.1	Radium-226	0.0537 ± 0.567 (1.08) C:NA T:89%	pCi/L		12/15/23 12:54	
EPA 904.0	Radium-228	-0.0833 ± 0.295 (0.724) C:74% T:85%	pCi/L		12/11/23 15:00	
Total Radium Calculation	Total Radium	0.0537 ± 0.862 (1.80)	pCi/L		12/15/23 14:47	
SM 2320B	Alkalinity, Total as CaCO3	641	mg/L	10.0	11/21/23 21:55	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	641	mg/L	10.0	11/21/23 21:55	
SM 2540C	Total Dissolved Solids	630	mg/L	20.0	11/22/23 11:40	
SM 4500-H+B	pH at 25 Degrees C	8.0	Std. Units	0.10	12/04/23 13:38	H3
EPA 365.1	Phosphate as P04	0.17	mg/L	0.15	12/04/23 14:23	
SM 5310C	Total Organic Carbon	2.8	mg/L	1.0	12/02/23 09:28	
SM 5310C	Dissolved Organic Carbon	3.4	mg/L	1.0	12/03/23 08:52	
50359882002	**MW-47I**					
EPA 9056	Bromide	0.10	mg/L	0.050	12/04/23 08:42	
EPA 9056	Chloride	7.6	mg/L	0.25	12/04/23 08:42	
EPA 9056	Fluoride	0.12	mg/L	0.10	12/04/23 08:42	
EPA 9056	Sulfate	323	mg/L	2.5	12/04/23 09:01	
EPA 6010	Boron	962	ug/L	100	12/01/23 21:21	
EPA 6010	Calcium	152000	ug/L	1000	12/01/23 21:21	
EPA 6010	Iron	2600	ug/L	100	12/01/23 21:21	
EPA 6010	Magnesium	42700	ug/L	1000	12/01/23 21:21	
EPA 6010	Potassium	1010	ug/L	1000	12/01/23 21:21	
EPA 6010	Silica	11000	ug/L	450	12/01/23 21:21	N2
EPA 6010	Sodium	8830	ug/L	1000	12/01/23 21:21	
EPA 6010	Boron, Dissolved	958	ug/L	100	12/01/23 15:59	
EPA 6010	Iron, Dissolved	2340	ug/L	100	12/01/23 15:59	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359882002	**MW-47I**					
EPA 6010	Magnesium, Dissolved	42600	ug/L	1000	12/01/23 15:59	
EPA 6010	Potassium, Dissolved	1030	ug/L	1000	12/01/23 15:59	
EPA 6020	Aluminum	19.7	ug/L	10.0	11/30/23 20:03	
EPA 6020	Barium	63.3	ug/L	1.0	11/30/23 20:03	
EPA 6020	Manganese	1410	ug/L	10.0	12/02/23 00:04	
EPA 6020	Manganese, Dissolved	1470	ug/L	20.0	12/01/23 21:48	
EPA 903.1	Radium-226	0.201 ± 0.238 (0.374) C:NA T:91%	pCi/L		12/15/23 12:54	
EPA 904.0	Radium-228	0.440 ± 0.429 (0.878) C:70% T:78%	pCi/L		12/11/23 15:00	
Total Radium Calculation	Total Radium	0.641 ± 0.667 (1.25)	pCi/L		12/15/23 14:47	
SM 2320B	Alkalinity, Total as CaCO3	246	mg/L	10.0	11/21/23 21:55	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	246	mg/L	10.0	11/21/23 21:55	
SM 2540C	Total Dissolved Solids	676	mg/L	10.0	11/22/23 11:40	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	12/04/23 13:38	H3
SM 4500-S2-D	Sulfide	0.027J	mg/L	0.10	11/21/23 10:05	
EPA 365.1	Phosphate as P04	0.30	mg/L	0.15	12/04/23 14:23	
SM 5310C	Total Organic Carbon	1.5	mg/L	1.0	12/02/23 09:38	
SM 5310C	Dissolved Organic Carbon	1.7	mg/L	1.0	12/03/23 09:02	
50359882003	**Dup-11**					
EPA 9056	Bromide	0.062	mg/L	0.050	12/04/23 09:37	
EPA 9056	Chloride	15.5	mg/L	0.25	12/04/23 09:37	
EPA 9056	Fluoride	0.11	mg/L	0.10	12/04/23 09:37	
EPA 9056	Sulfate	43.8	mg/L	0.25	12/04/23 09:37	
EPA 6010	Calcium	185000	ug/L	1000	12/01/23 22:38	
EPA 6010	Iron	2300	ug/L	100	12/01/23 22:38	
EPA 6010	Magnesium	45900	ug/L	1000	12/01/23 22:38	
EPA 6010	Silica	15800	ug/L	450	12/01/23 22:38	N2
EPA 6010	Sodium	8480	ug/L	1000	12/01/23 22:38	
EPA 6010	Iron, Dissolved	2280	ug/L	100	12/01/23 16:16	
EPA 6010	Magnesium, Dissolved	45600	ug/L	1000	12/01/23 16:16	
EPA 6020	Arsenic	1.9	ug/L	1.0	11/30/23 20:23	
EPA 6020	Barium	104	ug/L	1.0	11/30/23 20:23	
EPA 6020	Cobalt	2.5	ug/L	1.0	11/30/23 20:23	
EPA 6020	Manganese	630	ug/L	5.0	12/02/23 00:24	
EPA 6020	Manganese, Dissolved	649	ug/L	5.0	12/01/23 21:32	
EPA 903.1	Radium-226	-0.301 ± 0.427 (1.00) C:NA T:89%	pCi/L		12/15/23 12:54	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359882003	**Dup-11**					
EPA 904.0	Radium-228	0.193 ± 0.379 (0.834) C:78% T:81%	pCi/L		12/11/23 15:00	
Total Radium Calculation	Total Radium	0.193 ± 0.806 (1.83)	pCi/L		12/15/23 14:47	
SM 2320B	Alkalinity, Total as CaCO3	638	mg/L	10.0	11/21/23 21:55	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	638	mg/L	10.0	11/21/23 21:55	
SM 2540C	Total Dissolved Solids	600	mg/L	20.0	11/22/23 11:41	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	12/04/23 13:39	H3
EPA 365.1	Phosphate as P04	0.21	mg/L	0.15	12/04/23 14:26	
SM 5310C	Total Organic Carbon	2.9	mg/L	1.0	12/02/23 10:09	
SM 5310C	Dissolved Organic Carbon	3.4	mg/L	1.0	12/03/23 10:08	
50359882004	**MW-47A**					
EPA 9056	Bromide	0.072	mg/L	0.050	12/04/23 12:59	
EPA 9056	Chloride	6.8	mg/L	0.25	12/04/23 12:59	
EPA 9056	Sulfate	328	mg/L	2.5	12/04/23 13:18	
EPA 6010	Boron	1120	ug/L	100	12/01/23 22:40	
EPA 6010	Calcium	153000	ug/L	1000	12/01/23 22:40	
EPA 6010	Iron	6950	ug/L	100	12/01/23 22:40	
EPA 6010	Magnesium	45100	ug/L	1000	12/01/23 22:40	
EPA 6010	Potassium	2120	ug/L	1000	12/01/23 22:40	
EPA 6010	Silica	14800	ug/L	450	12/01/23 22:40	N2
EPA 6010	Sodium	8060	ug/L	1000	12/01/23 22:40	
EPA 6010	Boron, Dissolved	1100	ug/L	100	12/01/23 16:18	
EPA 6010	Iron, Dissolved	5740	ug/L	100	12/01/23 16:18	
EPA 6010	Magnesium, Dissolved	44800	ug/L	1000	12/01/23 16:18	
EPA 6010	Potassium, Dissolved	2040	ug/L	1000	12/01/23 16:18	
EPA 6020	Aluminum	51.5	ug/L	10.0	11/30/23 20:27	
EPA 6020	Arsenic	2.9	ug/L	1.0	11/30/23 20:27	
EPA 6020	Barium	48.2	ug/L	1.0	11/30/23 20:27	
EPA 6020	Manganese	438	ug/L	5.0	12/02/23 00:28	
EPA 6020	Manganese, Dissolved	431	ug/L	5.0	12/01/23 21:36	
EPA 903.1	Radium-226	0.128 ± 0.398 (0.771) C:NA T:86%	pCi/L		12/15/23 12:54	
EPA 904.0	Radium-228	-0.0207 ± 0.360 (0.849) C:77% T:81%	pCi/L		12/11/23 15:00	
Total Radium Calculation	Total Radium	0.128 ± 0.758 (1.62)	pCi/L		12/15/23 14:47	
SM 2320B	Alkalinity, Total as CaCO3	256	mg/L	10.0	11/21/23 21:55	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	256	mg/L	10.0	11/21/23 21:55	
SM 2540C	Total Dissolved Solids	705	mg/L	10.0	11/22/23 11:41	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359882004	**MW-47A**					
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	12/04/23 13:40	H3
SM 4500-S2-D	Sulfide	0.033J	mg/L	0.10	11/21/23 10:05	
EPA 365.1	Phosphate as P04	0.58	mg/L	0.15	12/04/23 14:26	
SM 5310C	Total Organic Carbon	1.2	mg/L	1.0	12/02/23 10:19	
SM 5310C	Dissolved Organic Carbon	2.2	mg/L	1.0	12/04/23 20:34	
50359882005	**MW-47I MS**					
EPA 903.1	Radium-226	106.79 %REC ± NA (NA) C:NA T:NA	pCi/L		12/15/23 12:54	
EPA 904.0	Radium-228	80.21 %REC ± NA (NA) C:NA T:NA	pCi/L		12/11/23 15:00	
50359882006	**MW-47I MSD**					
EPA 903.1	Radium-226	134.27 %REC 22.80RPD ± NA (NA) C:NA T:NA	pCi/L		12/15/23 13:09	
EPA 904.0	Radium-228	87.77 %REC 8.99RPD ± NA (NA) C:NA T:NA	pCi/L		12/11/23 15:00	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

Sample: MW-47B **Lab ID: 50359882001** Collected: 11/16/23 10:35 Received: 11/16/23 17:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.059**	mg/L	0.050	0.0090	1		12/04/23 08:06	24959-67-9	
Chloride	**15.7**	mg/L	0.25	0.067	1		12/04/23 08:06	16887-00-6	
Fluoride	**0.11**	mg/L	0.10	0.017	1		12/04/23 08:06	16984-48-8	
Sulfate	**43.9**	mg/L	0.25	0.19	1		12/04/23 08:06	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	ND	ug/L	100	6.2	1	11/27/23 08:17	12/01/23 21:19	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/27/23 08:17	12/01/23 21:19	7440-43-9	
Calcium	**192000**	ug/L	1000	67.7	1	11/27/23 08:17	12/01/23 21:19	7440-70-2	
Iron	**2440**	ug/L	100	30.0	1	11/27/23 08:17	12/01/23 21:19	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	11/27/23 08:17	12/01/23 21:19	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/27/23 08:17	12/01/23 21:19	7439-93-2	
Magnesium	**45700**	ug/L	1000	33.6	1	11/27/23 08:17	12/01/23 21:19	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	11/27/23 08:17	12/01/23 21:19	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	11/27/23 08:17	12/01/23 21:19	7440-09-7	
Silica	**16500**	ug/L	450		1	11/27/23 08:17	12/01/23 21:19	7631-86-9	N2
Sodium	**8810**	ug/L	1000	54.8	1	11/27/23 08:17	12/01/23 21:19	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	ND	ug/L	100	11.4	1	11/29/23 16:12	12/01/23 15:58	7440-42-8	
Iron, Dissolved	**2250**	ug/L	100	18.1	1	11/29/23 16:12	12/01/23 15:58	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	11/29/23 16:12	12/01/23 15:58	7439-93-2	
Magnesium, Dissolved	**45900**	ug/L	1000	32.8	1	11/29/23 16:12	12/01/23 15:58	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	11/29/23 16:12	12/01/23 15:58	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	120	1	11/29/23 16:12	12/01/23 15:58	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	2.8	1	11/28/23 16:23	11/30/23 19:59	7429-90-5	
Arsenic	**1.9**	ug/L	1.0	0.10	1	11/28/23 16:23	11/30/23 19:59	7440-38-2	
Barium	**104**	ug/L	1.0	0.14	1	11/28/23 16:23	11/30/23 19:59	7440-39-3	
Cobalt	**2.5**	ug/L	1.0	0.082	1	11/28/23 16:23	11/30/23 19:59	7440-48-4	
Manganese	**630**	ug/L	5.0	0.91	5	11/28/23 16:23	12/02/23 00:00	7439-96-5	
Selenium	ND	ug/L	1.0	0.44	1	11/28/23 16:23	11/30/23 19:59	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/29/23 15:15	12/01/23 04:13	7429-90-5	
Manganese, Dissolved	**637**	ug/L	5.0	0.91	5	11/29/23 15:15	12/01/23 21:28	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

Sample: MW-47B **Lab ID: 50359882001** Collected: 11/16/23 10:35 Received: 11/16/23 17:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**641**	mg/L	10.0	10.0	1		11/21/23 21:55		
Alkalinity,Bicarbonate (CaCO3)	**641**	mg/L	10.0	10.0	1		11/21/23 21:55		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/21/23 21:55		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**630**	mg/L	20.0	20.0	1		11/22/23 11:40		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**8.0**	Std. Units	0.10	0.10	1		12/04/23 13:38		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/21/23 10:05	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/28/23 14:21	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/17/23 02:04	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/17/23 02:04	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.17**	mg/L	0.15	0.15	1	12/01/23 13:00	12/04/23 14:23		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**2.8**	mg/L	1.0	0.24	1		12/02/23 09:28	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.4**	mg/L	1.0	0.24	1		12/03/23 08:52		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

Sample: MW-47I **Lab ID: 50359882002** Collected: 11/16/23 13:30 Received: 11/16/23 17:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.10**	mg/L	0.050	0.0090	1		12/04/23 08:42	24959-67-9	
Chloride	**7.6**	mg/L	0.25	0.067	1		12/04/23 08:42	16887-00-6	
Fluoride	**0.12**	mg/L	0.10	0.017	1		12/04/23 08:42	16984-48-8	
Sulfate	**323**	mg/L	2.5	1.9	10		12/04/23 09:01	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**962**	ug/L	100	6.2	1	11/27/23 08:17	12/01/23 21:21	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/27/23 08:17	12/01/23 21:21	7440-43-9	
Calcium	**152000**	ug/L	1000	67.7	1	11/27/23 08:17	12/01/23 21:21	7440-70-2	
Iron	**2600**	ug/L	100	30.0	1	11/27/23 08:17	12/01/23 21:21	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	11/27/23 08:17	12/01/23 21:21	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/27/23 08:17	12/01/23 21:21	7439-93-2	
Magnesium	**42700**	ug/L	1000	33.6	1	11/27/23 08:17	12/01/23 21:21	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	11/27/23 08:17	12/01/23 21:21	7439-98-7	
Potassium	**1010**	ug/L	1000	97.8	1	11/27/23 08:17	12/01/23 21:21	7440-09-7	
Silica	**11000**	ug/L	450		1	11/27/23 08:17	12/01/23 21:21	7631-86-9	N2
Sodium	**8830**	ug/L	1000	54.8	1	11/27/23 08:17	12/01/23 21:21	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**958**	ug/L	100	11.4	1	11/29/23 16:12	12/01/23 15:59	7440-42-8	
Iron, Dissolved	**2340**	ug/L	100	18.1	1	11/29/23 16:12	12/01/23 15:59	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	11/29/23 16:12	12/01/23 15:59	7439-93-2	
Magnesium, Dissolved	**42600**	ug/L	1000	32.8	1	11/29/23 16:12	12/01/23 15:59	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	11/29/23 16:12	12/01/23 15:59	7439-98-7	
Potassium, Dissolved	**1030**	ug/L	1000	120	1	11/29/23 16:12	12/01/23 15:59	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**19.7**	ug/L	10.0	2.8	1	11/28/23 16:23	11/30/23 20:03	7429-90-5	
Arsenic	ND	ug/L	1.0	0.10	1	11/28/23 16:23	11/30/23 20:03	7440-38-2	
Barium	**63.3**	ug/L	1.0	0.14	1	11/28/23 16:23	11/30/23 20:03	7440-39-3	
Cobalt	ND	ug/L	1.0	0.082	1	11/28/23 16:23	11/30/23 20:03	7440-48-4	
Manganese	**1410**	ug/L	10.0	1.8	10	11/28/23 16:23	12/02/23 00:04	7439-96-5	
Selenium	ND	ug/L	1.0	0.44	1	11/28/23 16:23	11/30/23 20:03	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/29/23 15:15	12/01/23 04:33	7429-90-5	
Manganese, Dissolved	**1470**	ug/L	20.0	3.6	20	11/29/23 15:15	12/01/23 21:48	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

Sample: MW-47I **Lab ID: 50359882002** Collected: 11/16/23 13:30 Received: 11/16/23 17:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**246**	mg/L	10.0	10.0	1		11/21/23 21:55		
Alkalinity,Bicarbonate (CaCO3)	**246**	mg/L	10.0	10.0	1		11/21/23 21:55		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/21/23 21:55		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**676**	mg/L	10.0	10.0	1		11/22/23 11:40		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.9**	Std. Units	0.10	0.10	1		12/04/23 13:38		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	**0.027J**	mg/L	0.10	0.025	1		11/21/23 10:05	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/28/23 14:22	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/17/23 02:20	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/17/23 02:20	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.30**	mg/L	0.15	0.15	1	12/01/23 13:00	12/04/23 14:23		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.5**	mg/L	1.0	0.24	1		12/02/23 09:38	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.7**	mg/L	1.0	0.24	1		12/03/23 09:02		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

Sample: Dup-11 **Lab ID: 50359882003** Collected: 11/16/23 08:00 Received: 11/16/23 17:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.062**	mg/L	0.050	0.0090	1		12/04/23 09:37	24959-67-9	
Chloride	**15.5**	mg/L	0.25	0.067	1		12/04/23 09:37	16887-00-6	
Fluoride	**0.11**	mg/L	0.10	0.017	1		12/04/23 09:37	16984-48-8	
Sulfate	**43.8**	mg/L	0.25	0.19	1		12/04/23 09:37	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	ND	ug/L	100	6.2	1	11/27/23 08:17	12/01/23 22:38	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/27/23 08:17	12/01/23 22:38	7440-43-9	
Calcium	**185000**	ug/L	1000	67.7	1	11/27/23 08:17	12/01/23 22:38	7440-70-2	
Iron	**2300**	ug/L	100	30.0	1	11/27/23 08:17	12/01/23 22:38	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	11/27/23 08:17	12/01/23 22:38	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/27/23 08:17	12/01/23 22:38	7439-93-2	
Magnesium	**45900**	ug/L	1000	33.6	1	11/27/23 08:17	12/01/23 22:38	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	11/27/23 08:17	12/01/23 22:38	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	11/27/23 08:17	12/01/23 22:38	7440-09-7	
Silica	**15800**	ug/L	450		1	11/27/23 08:17	12/01/23 22:38	7631-86-9	N2
Sodium	**8480**	ug/L	1000	54.8	1	11/27/23 08:17	12/01/23 22:38	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	ND	ug/L	100	11.4	1	11/29/23 16:12	12/01/23 16:16	7440-42-8	
Iron, Dissolved	**2280**	ug/L	100	18.1	1	11/29/23 16:12	12/01/23 16:16	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	11/29/23 16:12	12/01/23 16:16	7439-93-2	
Magnesium, Dissolved	**45600**	ug/L	1000	32.8	1	11/29/23 16:12	12/01/23 16:16	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	11/29/23 16:12	12/01/23 16:16	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	120	1	11/29/23 16:12	12/01/23 16:16	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	ND	ug/L	10.0	2.8	1	11/28/23 16:23	11/30/23 20:23	7429-90-5	
Arsenic	**1.9**	ug/L	1.0	0.10	1	11/28/23 16:23	11/30/23 20:23	7440-38-2	
Barium	**104**	ug/L	1.0	0.14	1	11/28/23 16:23	11/30/23 20:23	7440-39-3	
Cobalt	**2.5**	ug/L	1.0	0.082	1	11/28/23 16:23	11/30/23 20:23	7440-48-4	
Manganese	**630**	ug/L	5.0	0.91	5	11/28/23 16:23	12/02/23 00:24	7439-96-5	
Selenium	ND	ug/L	1.0	0.44	1	11/28/23 16:23	11/30/23 20:23	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/29/23 15:15	12/01/23 04:17	7429-90-5	
Manganese, Dissolved	**649**	ug/L	5.0	0.91	5	11/29/23 15:15	12/01/23 21:32	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

Sample: Dup-11 **Lab ID: 50359882003** Collected: 11/16/23 08:00 Received: 11/16/23 17:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**638**	mg/L	10.0	10.0	1		11/21/23 21:55		
Alkalinity,Bicarbonate (CaCO3)	**638**	mg/L	10.0	10.0	1		11/21/23 21:55		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/21/23 21:55		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**600**	mg/L	20.0	20.0	1		11/22/23 11:41		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.7**	Std. Units	0.10	0.10	1		12/04/23 13:39		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		11/21/23 10:05	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/28/23 14:21	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/17/23 01:50	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/17/23 01:50	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.21**	mg/L	0.15	0.15	1	12/01/23 13:00	12/04/23 14:26		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**2.9**	mg/L	1.0	0.24	1		12/02/23 10:09	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.4**	mg/L	1.0	0.24	1		12/03/23 10:08		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

Sample: MW-47A **Lab ID: 50359882004** Collected: 11/16/23 12:30 Received: 11/16/23 17:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.072**	mg/L	0.050	0.0090	1		12/04/23 12:59	24959-67-9	
Chloride	**6.8**	mg/L	0.25	0.067	1		12/04/23 12:59	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		12/04/23 12:59	16984-48-8	
Sulfate	**328**	mg/L	2.5	1.9	10		12/04/23 13:18	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**1120**	ug/L	100	6.2	1	11/27/23 08:17	12/01/23 22:40	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	11/27/23 08:17	12/01/23 22:40	7440-43-9	
Calcium	**153000**	ug/L	1000	67.7	1	11/27/23 08:17	12/01/23 22:40	7440-70-2	
Iron	**6950**	ug/L	100	30.0	1	11/27/23 08:17	12/01/23 22:40	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	11/27/23 08:17	12/01/23 22:40	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	11/27/23 08:17	12/01/23 22:40	7439-93-2	
Magnesium	**45100**	ug/L	1000	33.6	1	11/27/23 08:17	12/01/23 22:40	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	11/27/23 08:17	12/01/23 22:40	7439-98-7	
Potassium	**2120**	ug/L	1000	97.8	1	11/27/23 08:17	12/01/23 22:40	7440-09-7	
Silica	**14800**	ug/L	450		1	11/27/23 08:17	12/01/23 22:40	7631-86-9	N2
Sodium	**8060**	ug/L	1000	54.8	1	11/27/23 08:17	12/01/23 22:40	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1100**	ug/L	100	11.4	1	11/29/23 16:12	12/01/23 16:18	7440-42-8	
Iron, Dissolved	**5740**	ug/L	100	18.1	1	11/29/23 16:12	12/01/23 16:18	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	11/29/23 16:12	12/01/23 16:18	7439-93-2	
Magnesium, Dissolved	**44800**	ug/L	1000	32.8	1	11/29/23 16:12	12/01/23 16:18	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	11/29/23 16:12	12/01/23 16:18	7439-98-7	
Potassium, Dissolved	**2040**	ug/L	1000	120	1	11/29/23 16:12	12/01/23 16:18	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**51.5**	ug/L	10.0	2.8	1	11/28/23 16:23	11/30/23 20:27	7429-90-5	
Arsenic	**2.9**	ug/L	1.0	0.10	1	11/28/23 16:23	11/30/23 20:27	7440-38-2	
Barium	**48.2**	ug/L	1.0	0.14	1	11/28/23 16:23	11/30/23 20:27	7440-39-3	
Cobalt	ND	ug/L	1.0	0.082	1	11/28/23 16:23	11/30/23 20:27	7440-48-4	
Manganese	**438**	ug/L	5.0	0.91	5	11/28/23 16:23	12/02/23 00:28	7439-96-5	
Selenium	ND	ug/L	1.0	0.44	1	11/28/23 16:23	11/30/23 20:27	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.8	1	11/29/23 15:15	12/01/23 04:21	7429-90-5	
Manganese, Dissolved	**431**	ug/L	5.0	0.91	5	11/29/23 15:15	12/01/23 21:36	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

Sample: MW-47A **Lab ID: 50359882004** Collected: 11/16/23 12:30 Received: 11/16/23 17:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**256**	mg/L	10.0	10.0	1		11/21/23 21:55		
Alkalinity,Bicarbonate (CaCO3)	**256**	mg/L	10.0	10.0	1		11/21/23 21:55		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		11/21/23 21:55		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**705**	mg/L	10.0	10.0	1		11/22/23 11:41		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.7**	Std. Units	0.10	0.10	1		12/04/23 13:40		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	**0.033J**	mg/L	0.10	0.025	1		11/21/23 10:05	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.035	1		11/28/23 14:22	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.011	1		11/17/23 02:18	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		11/17/23 02:18	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.58**	mg/L	0.15	0.15	1	12/01/23 13:00	12/04/23 14:26		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.2**	mg/L	1.0	0.24	1		12/02/23 10:19	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.2**	mg/L	1.0	0.24	1		12/04/23 20:34		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

QC Batch: 765161
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359882001, 50359882002, 50359882003, 50359882004

METHOD BLANK: 3506656 Matrix: Water
Associated Lab Samples: 50359882001, 50359882002, 50359882003, 50359882004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	12/04/23 07:29	
Chloride	mg/L	ND	0.25	0.067	12/04/23 07:29	
Fluoride	mg/L	ND	0.10	0.017	12/04/23 07:29	
Sulfate	mg/L	ND	0.25	0.19	12/04/23 07:29	

LABORATORY CONTROL SAMPLE: 3506657

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.98	98	80-120	
Chloride	mg/L	2.5	2.5	99	80-120	
Fluoride	mg/L	1	0.97	97	80-120	
Sulfate	mg/L	5	4.8	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3506658 3506659

Parameter	Units	50359882002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	0.10	1	1	1.0	1.1	95	96	80-120	1	15	
Chloride	mg/L	7.6	2.5	2.5	10.1	10.1	98	98	80-120	0	15	
Fluoride	mg/L	0.12	1	1	1.1	1.1	98	98	80-120	0	15	
Sulfate	mg/L	323	50	50	386	387	128	130	80-120	0	15	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

QC Batch: 764439
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359882001, 50359882002, 50359882003, 50359882004

METHOD BLANK: 3503932 Matrix: Water
Associated Lab Samples: 50359882001, 50359882002, 50359882003, 50359882004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	12/01/23 21:18	
Cadmium	ug/L	ND	2.0	0.60	12/01/23 21:18	
Calcium	ug/L	ND	1000	67.7	12/01/23 21:18	
Iron	ug/L	ND	100	30.0	12/01/23 21:18	
Lead	ug/L	ND	10.0	2.5	12/01/23 21:18	
Lithium	ug/L	ND	20.0	6.8	12/01/23 21:18	
Magnesium	ug/L	ND	1000	33.6	12/01/23 21:18	
Molybdenum	ug/L	ND	10.0	0.78	12/01/23 21:18	
Potassium	ug/L	ND	1000	97.8	12/01/23 21:18	
Silica	ug/L	ND	450		12/01/23 21:18	N2
Sodium	ug/L	ND	1000	54.8	12/01/23 21:18	

LABORATORY CONTROL SAMPLE: 3503933

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	963	96	80-120	
Cadmium	ug/L	1000	977	98	80-120	
Calcium	ug/L	10000	10000	100	80-120	
Iron	ug/L	10000	9710	97	80-120	
Lead	ug/L	1000	919	92	80-120	
Lithium	ug/L	1000	1000	100	80-120	
Magnesium	ug/L	10000	9590	96	80-120	
Molybdenum	ug/L	1000	1020	102	80-120	
Potassium	ug/L	10000	9770	98	80-120	
Silica	ug/L	10700	10600	99	80-120	N2
Sodium	ug/L	10000	9630	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503934 3503935

Parameter	Units	50359882002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	962	1000	1000	2000	2010	104	104	75-125	0	20	
Cadmium	ug/L	ND	1000	1000	1030	1020	103	102	75-125	1	20	
Calcium	ug/L	152000	10000	10000	160000	161000	75	90	75-125	1	20	
Iron	ug/L	2600	10000	10000	12600	12500	100	99	75-125	1	20	
Lead	ug/L	ND	1000	1000	906	893	91	89	75-125	2	20	
Lithium	ug/L	ND	1000	1000	1060	1040	105	104	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503934 3503935

Parameter	Units	50359882002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Magnesium	ug/L	42700	10000	10000	52100	52500	94	98	75-125	1	20	
Molybdenum	ug/L	ND	1000	1000	1070	1050	107	105	75-125	2	20	
Potassium	ug/L	1010	10000	10000	11400	11200	104	102	75-125	2	20	
Silica	ug/L	11000	10700	10700	22100	22000	103	103	75-125	0	20	N2
Sodium	ug/L	8830	10000	10000	18800	18800	100	100	75-125	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503936 3503937

Parameter	Units	50359919004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	3950	1000	1000	4790	4980	84	102	75-125	4	20	
Cadmium	ug/L	<2.0	1000	1000	987	978	99	98	75-125	1	20	
Calcium	ug/L	154000	10000	10000	156000	163000	20	89	75-125	4	20	P6
Iron	ug/L	22200	10000	10000	30300	31300	81	91	75-125	3	20	
Lead	ug/L	<10.0	1000	1000	846	839	85	84	75-125	1	20	
Lithium	ug/L	52.6	1000	1000	1050	1050	100	100	75-125	0	20	
Magnesium	ug/L	145000	10000	10000	148000	155000	27	95	75-125	4	20	P6
Molybdenum	ug/L	<10.0	1000	1000	992	984	99	98	75-125	1	20	
Potassium	ug/L	70000	10000	10000	76900	80300	70	103	75-125	4	20	P6
Silica	ug/L	38700	10700	10700	47100	49000	79	96	75-125	4	20	N2
Sodium	ug/L	322000	10000	10000	315000	330000	-69	83	75-125	5	20	E,P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

QC Batch: 765315
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359882001, 50359882002, 50359882003, 50359882004

METHOD BLANK: 3507210 Matrix: Water
Associated Lab Samples: 50359882001, 50359882002, 50359882003, 50359882004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	11.4	12/01/23 15:41	
Iron, Dissolved	ug/L	ND	100	18.1	12/01/23 15:41	
Lithium, Dissolved	ug/L	ND	20.0	5.1	12/01/23 15:41	
Magnesium, Dissolved	ug/L	ND	1000	32.8	12/01/23 15:41	
Molybdenum, Dissolved	ug/L	ND	10.0	1.1	12/01/23 15:41	
Potassium, Dissolved	ug/L	ND	1000	120	12/01/23 15:41	

LABORATORY CONTROL SAMPLE: 3507211

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	914	91	80-120	
Iron, Dissolved	ug/L	10000	9480	95	80-120	
Lithium, Dissolved	ug/L	1000	950	95	80-120	
Magnesium, Dissolved	ug/L	10000	9370	94	80-120	
Molybdenum, Dissolved	ug/L	1000	934	93	80-120	
Potassium, Dissolved	ug/L	10000	9400	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3507212 3507213

Parameter	Units	50359882002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	958	1000	1000	1900	1870	94	91	75-125	2	20	
Iron, Dissolved	ug/L	2340	10000	10000	11700	11400	93	91	75-125	2	20	
Lithium, Dissolved	ug/L	ND	1000	1000	967	957	96	95	75-125	1	20	
Magnesium, Dissolved	ug/L	42600	10000	10000	51000	50000	84	74	75-125	2	20	P6
Molybdenum, Dissolved	ug/L	ND	1000	1000	964	945	96	94	75-125	2	20	
Potassium, Dissolved	ug/L	1030	10000	10000	10500	10400	95	94	75-125	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3507214 3507215

Parameter	Units	50359976003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	ND	1000	1000	951	943	94	94	75-125	1	20	
Iron, Dissolved	ug/L	ND	10000	10000	9490	9400	95	94	75-125	1	20	
Lithium, Dissolved	ug/L	ND	1000	1000	958	958	96	96	75-125	0	20	
Magnesium, Dissolved	ug/L	29.2 mg/L	10000	10000	37300	38100	81	88	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3507214 3507215

Parameter	Units	50359976003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Molybdenum, Dissolved	ug/L	ND	1000	1000	969	961	97	96	75-125	1	20	
Potassium, Dissolved	ug/L	ND	10000	10000	9600	9530	94	93	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

QC Batch: 764976
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359882001, 50359882002, 50359882003, 50359882004

METHOD BLANK: 3505881 Matrix: Water
Associated Lab Samples: 50359882001, 50359882002, 50359882003, 50359882004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	2.8	11/29/23 19:43	
Arsenic	ug/L	ND	1.0	0.10	11/29/23 19:43	
Barium	ug/L	ND	1.0	0.14	11/29/23 19:43	
Cobalt	ug/L	ND	1.0	0.082	11/29/23 19:43	
Manganese	ug/L	ND	1.0	0.18	11/29/23 19:43	
Selenium	ug/L	ND	1.0	0.44	11/29/23 19:43	

LABORATORY CONTROL SAMPLE: 3505882

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	400	100	80-120	
Arsenic	ug/L	40	39.2	98	80-120	
Barium	ug/L	40	39.0	97	80-120	
Cobalt	ug/L	40	41.2	103	80-120	
Manganese	ug/L	40	41.3	103	80-120	
Selenium	ug/L	40	40.2	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3505883 3505884

Parameter	Units	50359882002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	19.7	400	400	393	400	93	95	75-125	2	20	
Arsenic	ug/L	ND	40	40	42.1	42.2	103	103	75-125	0	20	
Barium	ug/L	63.3	40	40	106	107	106	109	75-125	1	20	
Cobalt	ug/L	ND	40	40	39.6	39.9	98	99	75-125	1	20	
Manganese	ug/L	1410	40	40	1470	1480	145	181	75-125	1	20	P6
Selenium	ug/L	ND	40	40	39.9	39.2	99	98	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

QC Batch: 765224
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359882001, 50359882002, 50359882003, 50359882004

METHOD BLANK: 3506965 Matrix: Water
Associated Lab Samples: 50359882001, 50359882002, 50359882003, 50359882004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.8	12/01/23 03:57	
Manganese, Dissolved	ug/L	ND	1.0	0.18	12/01/23 03:57	

LABORATORY CONTROL SAMPLE: 3506966

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	394	98	80-120	
Manganese, Dissolved	ug/L	40	40.7	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3506967 3506968

Parameter	Units	50359882002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	404	400	100	99	75-125	1	20	
Manganese, Dissolved	ug/L	1470	40	40	1490	1510	49	88	75-125	1	20	P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

QC Batch: 764369
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359882001, 50359882002, 50359882003, 50359882004

METHOD BLANK: 3503647 Matrix: Water
Associated Lab Samples: 50359882001, 50359882002, 50359882003, 50359882004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	11/21/23 21:55	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	11/21/23 21:55	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	11/21/23 21:55	

LABORATORY CONTROL SAMPLE: 3503648

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	54.5	109	90-110	

SAMPLE DUPLICATE: 3503649

Parameter	Units	50359882002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	246	248	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	246	248	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3503650

Parameter	Units	50359976003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	277	278	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

QC Batch: 764407
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359882001, 50359882002, 50359882003, 50359882004

METHOD BLANK: 3503839 Matrix: Water
Associated Lab Samples: 50359882001, 50359882002, 50359882003, 50359882004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/22/23 11:40	

LABORATORY CONTROL SAMPLE: 3503840

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	273	91	80-120	

SAMPLE DUPLICATE: 3503841

Parameter	Units	50359882002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	676	671	1	10	

SAMPLE DUPLICATE: 3503842

Parameter	Units	50359937001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2200	2090	5	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

QC Batch: 766087
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359882001, 50359882002, 50359882003, 50359882004

SAMPLE DUPLICATE: 3510411

Parameter	Units	50359852001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.6	7.6	0	2	H3

SAMPLE DUPLICATE: 3510412

Parameter	Units	50359882002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.9	7.9	0	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

QC Batch: 764185
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359882001, 50359882002, 50359882003, 50359882004

METHOD BLANK: 3502844 Matrix: Water
Associated Lab Samples: 50359882001, 50359882002, 50359882003, 50359882004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	11/21/23 10:05	

LABORATORY CONTROL SAMPLE: 3502845

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.51	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3502846 3502847

Parameter	Units	50359882002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	0.027J	0.5	0.5	0.58	0.59	111	113	90-110	1	20	M3

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3502848 3502849

Parameter	Units	50359976003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.53	0.52	105	105	90-110	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

QC Batch: 765058
QC Batch Method: HACH 8146
Analysis Method: HACH 8146
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359882001, 50359882002, 50359882003, 50359882004

METHOD BLANK: 3506112 Matrix: Water
Associated Lab Samples: 50359882001, 50359882002, 50359882003, 50359882004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.035	11/28/23 14:17	H3,N2

LABORATORY CONTROL SAMPLE: 3506113

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	0.98	98	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3506114 3506115

Parameter	Units	50359882002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.1	106	106	90-110	0	20	H3,N2

MATRIX SPIKE SAMPLE: 3506116

Parameter	Units	50360217001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	ND	1	1.1	106	90-110	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

QC Batch: 763504
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359882001, 50359882003

METHOD BLANK: 3499830 Matrix: Water
Associated Lab Samples: 50359882001, 50359882003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/17/23 02:41	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/17/23 02:41	

LABORATORY CONTROL SAMPLE: 3499831

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	102	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	104	90-110	

MATRIX SPIKE SAMPLE: 3499832

Parameter	Units	50359827002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	0.012J	1	1.0	100	90-110	
Nitrogen, Nitrite	mg/L	0.010J	1	1.0	103	90-110	

MATRIX SPIKE SAMPLE: 3499833

Parameter	Units	50359827005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	5	5.0	99	90-110	
Nitrogen, Nitrite	mg/L	ND	5	5.3	105	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

QC Batch: 763505
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359882002, 50359882004

METHOD BLANK: 3499837 Matrix: Water
Associated Lab Samples: 50359882002, 50359882004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.011	11/17/23 02:09	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	11/17/23 02:09	

LABORATORY CONTROL SAMPLE: 3499838

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	103	90-110	
Nitrogen, Nitrite	mg/L	1	1.1	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3499839 3499840

Parameter	Units	50359882002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.0	1.0	104	102	90-110	1	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.1	1.1	106	105	90-110	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

QC Batch: 765753
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359882001, 50359882002, 50359882003, 50359882004

METHOD BLANK: 3509062 Matrix: Water
Associated Lab Samples: 50359882001, 50359882002, 50359882003, 50359882004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	12/04/23 14:20	

LABORATORY CONTROL SAMPLE: 3509063

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.7			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3509064 3509065

Parameter	Units	50359882002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	0.30			1.9	1.8				6		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

QC Batch: 765883
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359882001, 50359882002, 50359882003, 50359882004

METHOD BLANK: 3509616 Matrix: Water
Associated Lab Samples: 50359882001, 50359882002, 50359882003, 50359882004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.24	12/02/23 06:57	

LABORATORY CONTROL SAMPLE: 3509617

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3509618 3509619

Parameter	Units	50359872012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	<2000 ug/L	10	10	10.6	10.8	88	90	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3509624 3509625

Parameter	Units	50359882002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	1.5	10	10	11.1	11.1	96	95	80-120	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

QC Batch: 765968
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359882001, 50359882002, 50359882003

METHOD BLANK: 3510138 Matrix: Water
Associated Lab Samples: 50359882001, 50359882002, 50359882003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	12/03/23 03:58	

LABORATORY CONTROL SAMPLE: 3510139

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3510140 3510141

Parameter	Units	50359760005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.5	10	10	11.8	11.9	94	94	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3510142 3510143

Parameter	Units	50359882002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.7	10	10	11.4	11.5	97	98	80-120	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

QC Batch: 765969
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359882004

METHOD BLANK: 3510144 Matrix: Water
Associated Lab Samples: 50359882004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.24	12/04/23 20:13	

LABORATORY CONTROL SAMPLE: 3510145

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3510146 3510147

Parameter	Units	50360386001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.6	10	10	12.2	12.3	96	96	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3510148 3510149

Parameter	Units	50360416003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.3	10	10	11.8	11.9	94	95	80-120	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

Sample: MW-47B **Lab ID: 50359882001** Collected: 11/16/23 10:35 Received: 11/16/23 17:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0537 ± 0.567 (1.08) C:NA T:89%**	pCi/L	12/15/23 12:54	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**-0.0833 ± 0.295 (0.724) C:74% T:85%**	pCi/L	12/11/23 15:00	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.0537 ± 0.862 (1.80)**	pCi/L	12/15/23 14:47	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

Sample: MW-47I **Lab ID: 50359882002** Collected: 11/16/23 13:30 Received: 11/16/23 17:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.201 ± 0.238 (0.374) C:NA T:91%**	pCi/L	12/15/23 12:54	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.440 ± 0.429 (0.878) C:70% T:78%**	pCi/L	12/11/23 15:00	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.641 ± 0.667 (1.25)**	pCi/L	12/15/23 14:47	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

Sample: Dup-11 **Lab ID: 50359882003** Collected: 11/16/23 08:00 Received: 11/16/23 17:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.301 ± 0.427 (1.00) C:NA T:89%**	pCi/L	12/15/23 12:54	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.193 ± 0.379 (0.834) C:78% T:81%**	pCi/L	12/11/23 15:00	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.193 ± 0.806 (1.83)**	pCi/L	12/15/23 14:47	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

Sample: MW-47A **Lab ID: 50359882004** Collected: 11/16/23 12:30 Received: 11/16/23 17:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.128 ± 0.398 (0.771) C:NA T:86%**	pCi/L	12/15/23 12:54	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**-0.0207 ± 0.360 (0.849) C:77% T:81%**	pCi/L	12/11/23 15:00	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.128 ± 0.758 (1.62)**	pCi/L	12/15/23 14:47	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

Sample: MW-47I MS **Lab ID: 50359882005** Collected: 11/16/23 13:30 Received: 11/16/23 15:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**106.79 %REC ± NA (NA) C:NA T:NA**	pCi/L	12/15/23 12:54	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**80.21 %REC ± NA (NA) C:NA T:NA**	pCi/L	12/11/23 15:00	15262-20-1	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

Sample: MW-47I MSD **Lab ID: 50359882006** Collected: 11/16/23 13:30 Received: 11/16/23 15:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**134.27 %REC 22.80RPD ± NA (NA) C:NA T:NA**	pCi/L	12/15/23 13:09	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**87.77 %REC 8.99RPD ± NA (NA) C:NA T:NA**	pCi/L	12/11/23 15:00	15262-20-1	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

QC Batch: 632183
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359882001, 50359882002, 50359882003, 50359882004, 50359882005, 50359882006

METHOD BLANK: 3082139 Matrix: Water
Associated Lab Samples: 50359882001, 50359882002, 50359882003, 50359882004, 50359882005, 50359882006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.0149 ± 0.270 (0.640) C:84% T:81%	pCi/L	12/11/23 11:53	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

QC Batch: 632182
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359882001, 50359882002, 50359882003, 50359882004, 50359882005, 50359882006

METHOD BLANK: 3082137 Matrix: Water
Associated Lab Samples: 50359882001, 50359882002, 50359882003, 50359882004, 50359882005, 50359882006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0430 ± 0.196 (0.317) C:NA T:91%	pCi/L	12/15/23 12:42	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359882001	**MW-47B**	EPA 9056	765161		
50359882002	**MW-47I**	EPA 9056	765161		
50359882003	**Dup-11**	EPA 9056	765161		
50359882004	**MW-47A**	EPA 9056	765161		
50359882001	**MW-47B**	EPA 3010	764439	EPA 6010	765913
50359882002	**MW-47I**	EPA 3010	764439	EPA 6010	765913
50359882003	**Dup-11**	EPA 3010	764439	EPA 6010	765913
50359882004	**MW-47A**	EPA 3010	764439	EPA 6010	765913
50359882001	**MW-47B**	EPA 3010	765315	EPA 6010	765861
50359882002	**MW-47I**	EPA 3010	765315	EPA 6010	765861
50359882003	**Dup-11**	EPA 3010	765315	EPA 6010	765861
50359882004	**MW-47A**	EPA 3010	765315	EPA 6010	765861
50359882001	**MW-47B**	EPA 200.2	764976	EPA 6020	765202
50359882002	**MW-47I**	EPA 200.2	764976	EPA 6020	765202
50359882003	**Dup-11**	EPA 200.2	764976	EPA 6020	765202
50359882004	**MW-47A**	EPA 200.2	764976	EPA 6020	765202
50359882001	**MW-47B**	EPA 200.2	765224	EPA 6020	765682
50359882002	**MW-47I**	EPA 200.2	765224	EPA 6020	765682
50359882003	**Dup-11**	EPA 200.2	765224	EPA 6020	765682
50359882004	**MW-47A**	EPA 200.2	765224	EPA 6020	765682
50359882001	**MW-47B**	EPA 903.1	632182		
50359882002	**MW-47I**	EPA 903.1	632182		
50359882003	**Dup-11**	EPA 903.1	632182		
50359882004	**MW-47A**	EPA 903.1	632182		
50359882005	**MW-47I MS**	EPA 903.1	632182		
50359882006	**MW-47I MSD**	EPA 903.1	632182		
50359882001	**MW-47B**	EPA 904.0	632183		
50359882002	**MW-47I**	EPA 904.0	632183		
50359882003	**Dup-11**	EPA 904.0	632183		
50359882004	**MW-47A**	EPA 904.0	632183		
50359882005	**MW-47I MS**	EPA 904.0	632183		
50359882006	**MW-47I MSD**	EPA 904.0	632183		
50359882001	**MW-47B**	Total Radium Calculation	636527		
50359882002	**MW-47I**	Total Radium Calculation	636527		
50359882003	**Dup-11**	Total Radium Calculation	636527		
50359882004	**MW-47A**	Total Radium Calculation	636527		
50359882001	**MW-47B**	SM 2320B	764369		
50359882002	**MW-47I**	SM 2320B	764369		
50359882003	**Dup-11**	SM 2320B	764369		
50359882004	**MW-47A**	SM 2320B	764369		
50359882001	**MW-47B**	SM 2540C	764407		
50359882002	**MW-47I**	SM 2540C	764407		
50359882003	**Dup-11**	SM 2540C	764407		
50359882004	**MW-47A**	SM 2540C	764407		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R4 Nov 2023
Pace Project No.: 50359882

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359882001	**MW-47B**	SM 4500-H+B	766087		
50359882002	**MW-47I**	SM 4500-H+B	766087		
50359882003	**Dup-11**	SM 4500-H+B	766087		
50359882004	**MW-47A**	SM 4500-H+B	766087		
50359882001	**MW-47B**	SM 4500-S2-D	764185		
50359882002	**MW-47I**	SM 4500-S2-D	764185		
50359882003	**Dup-11**	SM 4500-S2-D	764185		
50359882004	**MW-47A**	SM 4500-S2-D	764185		
50359882001	**MW-47B**	HACH 8146	765058		
50359882002	**MW-47I**	HACH 8146	765058		
50359882003	**Dup-11**	HACH 8146	765058		
50359882004	**MW-47A**	HACH 8146	765058		
50359882001	**MW-47B**	EPA 353.2	763504		
50359882002	**MW-47I**	EPA 353.2	763505		
50359882003	**Dup-11**	EPA 353.2	763504		
50359882004	**MW-47A**	EPA 353.2	763505		
50359882001	**MW-47B**	EPA 365.1	765753	EPA 365.1	766107
50359882002	**MW-47I**	EPA 365.1	765753	EPA 365.1	766107
50359882003	**Dup-11**	EPA 365.1	765753	EPA 365.1	766107
50359882004	**MW-47A**	EPA 365.1	765753	EPA 365.1	766107
50359882001	**MW-47B**	SM 5310C	765883		
50359882002	**MW-47I**	SM 5310C	765883		
50359882003	**Dup-11**	SM 5310C	765883		
50359882004	**MW-47A**	SM 5310C	765883		
50359882001	**MW-47B**	SM 5310C	765968		
50359882002	**MW-47I**	SM 5310C	765968		
50359882003	**Dup-11**	SM 5310C	765968		
50359882004	**MW-47A**	SM 5310C	765969		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY

The Chain-of-Custody is a LEGAL

WO# : 50359882

50359882

Page : Of

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P4R4 Nov 2023	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:		Pace Profile #:	10498/53

Regulatory Agency	
State / Location	
	IN

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO2, NO3 Wet	(Br, Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity*, Ferrous Iron, pH	TOC by 5310C	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum		Residual Chlorine (Y/N)	
																		Y				Y								Requested Analysis Filtered (Y/N)
1	MW-47B	WT	G	11-16	1000	11-16	1035		11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓			001
2	MW-47I	WT	G	11-16	1230	11-16	1330		11	3	3	4		1					✓	✓	✓	✓	✓	—	✓	✓	✓			002
3	DUP-1	WT	G	11-16		11-16			11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓			003
4	MS-7	WT	G	11-16	1230	11-16	1330		11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓			
5	MSD-7	WT	G	11-16	1230	11-16	1330		11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓			
6	MW-47A	WT	G	11-16	1245	11-16	12:30		11	3	3	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓			004
7																													
8																													
9																													
10																													
11																													
12																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
* Metals: 6010 (B, Cd, Fe, Pb, Mo, Ca, Mg, Na, K, Li, sila) (11)	Mohammed Bazlamit	11-16-23	1500		11/16/23	1900	0.8	Y	N	Y
6020 (Al, Mn, Co, As, Se, Ba) (6)							1.1			
** Dissolved FF 6010 (B, Fe, Mo, Mg, K, Li) (6) FF 6020 (Al, Mn) (2)							1.6			
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	Mykah Bertram		
SIGNATURE of SAMPLER:		DATE Signed:	11-16-23

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

F-IN-Q-290-rev.23, 26Jun2023

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 11/16/23 1740 JT

1. **Courier:** ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☐ Yes ☑ No
   (If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H
4. **Cooler Temperature(s):** 0.8 | 0.8 | 1.1 | 1.1 | 1.6 | 1.6 | | **(Initial/Corrected)** RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)
5. **Packing Material:** ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** ~~HNO3 (<2)~~ H2SO4 (<2) NaOH (>10) ~~NaOH/ZnAc (>9)~~ Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? **Analysis:** Nitrates	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
		✓	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):			Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)		✓	Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC									OTHER								
			MeOH (only)																											Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
			SBS																											Red	Yellow	Green	Black
			DI		VOA VIAL HS >6mm																												
COC Line Item	WGFU	WGKU BG1U	R	DG9H VG9H		VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
1												1	1			2	1	2	1	1	1		1					WT	✓	✓		✓
2												3	3			6	3	6	3	3	3		3					↓	↓	↓		↓
3												1	1			2	1	2	1	1	1		1					↓	↓	↓		↓
4																																
5																																
6												1	1			2	1	2	1	1	1		1					WT	✓	✓		✓
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

January 2024

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

January 29, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg Jan 2024 P2R4
Pace Project No.: 50364397

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on January 26, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg Jan 2024 P2R4
Pace Project No.: 50364397

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg Jan 2024 P2R4
Pace Project No.: 50364397

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50364397001	**AP-2A**	Water	01/25/24 09:20	01/26/24 15:15

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg Jan 2024 P2R4
Pace Project No.: 50364397

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50364397001	**AP-2A**	EPA 6020	MGM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg Jan 2024 P2R4
Pace Project No.: 50364397

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50364397001	**AP-2A**					
EPA 6020	Arsenic	2080	ug/L	20.0	01/26/24 21:15	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg Jan 2024 P2R4
Pace Project No.: 50364397

Sample: AP-2A **Lab ID: 50364397001** Collected: 01/25/24 09:20 Received: 01/26/24 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Arsenic	**2080**	ug/L	20.0	2.2	20	01/26/24 17:35	01/26/24 21:15	7440-38-2	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg Jan 2024 P2R4
Pace Project No.: 50364397

QC Batch: 773081
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50364397001

METHOD BLANK: 3539321 Matrix: Water
Associated Lab Samples: 50364397001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	ug/L	ND	1.0	0.11	01/26/24 20:34	

LABORATORY CONTROL SAMPLE: 3539322

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	40	37.3	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3539323 3539324

Parameter	Units	50364397001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	2080	40	40	2090	2090	29	33	75-125	0	20	P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg Jan 2024 P2R4
Pace Project No.: 50364397

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg Jan 2024 P2R4
Pace Project No.: 50364397

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50364397001	**AP-2A**	EPA 200.2	773081	EPA 6020	773093

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO# : 50364397

50364397

Pace Analytical
WWW.PACELABS.COM

N-OF-CUSTODY / Analytical Request Document

ain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A
Required Client Information:

Company:	Atlas Indianapolis
Address:	7988 Centerpoint Drive Suite 100
	Indianapolis, IN 46256
Email:	mark.breting@oneatlas.com
Phone:	(317)579-4082 Fax:
Requested Due Date:	

Report To:	Mark Breting
Copy To:	
Purchase Order #:	
Project Name:	Petersburg Jan 2024 P2R4
Project #:	

Section C
Invoice Information:

Attention:	Accounts Payable - Paula Sedam
Company Name:	Atlas Indianapolis
Address:	
Pace Quote:	
Pace Project Manager:	Will Statz
Pace Profile #:	10498/51

Regulatory Agency
State / Location
IN

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	Arsenic, Total*	Residual Chlorine (Y/N)
1	AP-2A					1.25.24	920		1			1							X	
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Jon Hill / Atlas	1.26.24	0800	Paula	1/26/24	1450				
*6020: As	Paula	1/26/24	1515		1/26/24	1515	2.0	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Jon Hill

SIGNATURE of SAMPLER: Jon Hill

DATE Signed: 1.26.24

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

F-IN-Q-290-rev.23, 26Jun2023

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 1126124 1546 MW

1. **Courier:** ☐ FED EX ☐ UPS ☐ CLIENT ☑ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☐ Yes ☑ No

(If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H

4. **Cooler Temperature(s):** 2.0/2.0 | | | |
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other ZIPLOC

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A ✓
Rush TAT Requested (4 days or less): 1Day	✓	1/27/26	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC									OTHER					Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
			MeOH (only)																										Red	Yellow	Green	Black
			SBS		VOA VIAL HS >6mm																											
			DI																													
COC Line Item	WGFU	WGKU BG1U	R	DG9H VG9H		VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
1																			—									W	✓			
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

February 2024

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

May 22, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on February 14, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50365772001	**AP-10B**	Water	02/13/24 13:15	02/14/24 09:10
50365772002	**AP-10I**	Water	02/13/24 15:30	02/14/24 09:10
50365772003	**AP-10B MS**	Water	02/13/24 13:15	02/14/24 09:10
50365772004	**AP-10B MSD**	Water	02/13/24 13:15	02/14/24 09:10

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50365772001	**AP-10B**	EPA 9056	KBB	4	PASI-I
		EPA 6010	ABH	11	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	MGM	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	WDB	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50365772002	**AP-10I**	EPA 9056	KBB	4	PASI-I
		EPA 6010	ABH	11	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	MGM	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	WDB	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50365772003	**AP-10B MS**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
50365772004	**AP-10B MSD**	EPA 903.1	LL1	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	VAL	1	PASI-PA

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50365772001	**AP-10B**					
EPA 9056	Bromide	0.15	mg/L	0.050	02/24/24 11:34	
EPA 9056	Chloride	13.9	mg/L	0.25	02/24/24 11:34	
EPA 9056	Fluoride	0.13	mg/L	0.10	02/24/24 11:34	
EPA 9056	Sulfate	77.7	mg/L	2.5	02/24/24 11:50	
EPA 6010	Boron	806	ug/L	100	02/19/24 17:46	
EPA 6010	Calcium	135000	ug/L	1000	02/19/24 17:46	
EPA 6010	Iron	692	ug/L	100	02/19/24 17:46	
EPA 6010	Magnesium	33500	ug/L	1000	02/19/24 17:46	
EPA 6010	Silica	12400	ug/L	450	02/19/24 17:46	N2
EPA 6010	Sodium	17100	ug/L	1000	02/19/24 17:46	
EPA 6010	Boron, Dissolved	820	ug/L	100	02/22/24 00:38	
EPA 6010	Magnesium, Dissolved	32700	ug/L	1000	02/22/24 00:38	
EPA 6020	Aluminum	282	ug/L	10.0	02/16/24 21:56	
EPA 6020	Barium	94.4	ug/L	1.0	02/16/24 21:56	
EPA 6020	Manganese	28.5	ug/L	1.0	02/16/24 21:56	
EPA 6020	Selenium	1.2	ug/L	1.0	02/16/24 21:56	
EPA 903.1	Radium-226	-0.0604 ± 0.355 (0.792) C:NA T:93%	pCi/L		02/26/24 13:31	
EPA 904.0	Radium-228	0.750 ± 0.437 (0.799) C:73% T:85%	pCi/L		02/27/24 12:39	
Total Radium Calculation	Total Radium	0.750 ± 0.792 (1.59)	pCi/L		02/28/24 09:49	
SM 2320B	Alkalinity, Total as CaCO3	390	mg/L	10.0	02/15/24 16:12	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	390	mg/L	10.0	02/15/24 16:12	
SM 2540C	Total Dissolved Solids	489	mg/L	10.0	02/19/24 11:48	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	02/27/24 12:48	H3
EPA 353.2	Nitrogen, Nitrate	1.6	mg/L	0.10	02/14/24 21:27	
SM 5310C	Dissolved Organic Carbon	1.6	mg/L	1.0	02/26/24 20:09	
50365772002	**AP-10I**					
EPA 9056	Bromide	2.7	mg/L	0.050	02/24/24 12:06	
EPA 9056	Chloride	146	mg/L	2.5	02/24/24 12:22	
EPA 9056	Fluoride	0.14	mg/L	0.10	02/24/24 12:06	
EPA 9056	Sulfate	924	mg/L	25.0	02/24/24 12:39	
EPA 6010	Boron	14300	ug/L	100	02/19/24 17:53	
EPA 6010	Calcium	410000	ug/L	5000	02/19/24 18:34	
EPA 6010	Iron	5920	ug/L	100	02/19/24 17:53	
EPA 6010	Lithium	29.7	ug/L	20.0	02/19/24 17:53	
EPA 6010	Magnesium	52100	ug/L	1000	02/19/24 17:53	
EPA 6010	Molybdenum	161	ug/L	10.0	02/19/24 17:53	
EPA 6010	Potassium	12200	ug/L	1000	02/19/24 17:53	
EPA 6010	Silica	13600	ug/L	450	02/19/24 17:53	N2
EPA 6010	Sodium	93500	ug/L	1000	02/19/24 17:53	
EPA 6010	Boron, Dissolved	14000	ug/L	100	02/22/24 00:45	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50365772002	**AP-10I**					
EPA 6010	Iron, Dissolved	5200	ug/L	100	02/22/24 00:45	
EPA 6010	Lithium, Dissolved	27.6	ug/L	20.0	02/22/24 00:45	
EPA 6010	Magnesium, Dissolved	49300	ug/L	1000	02/22/24 00:45	
EPA 6010	Molybdenum, Dissolved	156	ug/L	10.0	02/22/24 00:45	
EPA 6010	Potassium, Dissolved	12200	ug/L	1000	02/22/24 00:45	
EPA 6020	Aluminum	68.4	ug/L	10.0	02/16/24 22:13	
EPA 6020	Barium	104	ug/L	1.0	02/16/24 22:13	
EPA 6020	Manganese	3170	ug/L	20.0	02/20/24 21:24	
EPA 6020	Manganese, Dissolved	3140	ug/L	20.0	02/20/24 23:00	
EPA 903.1	Radium-226	0.845 ± 0.737 (1.12) C:NA T:91%	pCi/L		02/26/24 13:31	
EPA 904.0	Radium-228	1.86 ± 0.620 (0.797) C:71% T:80%	pCi/L		02/27/24 12:39	
Total Radium Calculation	Total Radium	2.71 ± 1.36 (1.92)	pCi/L		02/28/24 09:49	
SM 2320B	Alkalinity, Total as CaCO3	186	mg/L	10.0	02/15/24 16:12	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	186	mg/L	10.0	02/15/24 16:12	
SM 2540C	Total Dissolved Solids	1820	mg/L	20.0	02/19/24 11:48	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	02/27/24 12:50	H3
HACH 8146	Iron, Ferrous	0.23	mg/L	0.20	02/16/24 14:52	H3,N2
EPA 365.1	Phosphate as P04	0.40	mg/L	0.15	02/26/24 14:09	
SM 5310C	Total Organic Carbon	2.2	mg/L	1.0	02/22/24 19:35	
SM 5310C	Dissolved Organic Carbon	3.0	mg/L	1.0	02/26/24 20:41	
50365772003	**AP-10B MS**					
EPA 903.1	Radium-226	82.37 %REC ± NA (NA) C:NA T:NA	pCi/L		02/26/24 13:31	
EPA 904.0	Radium-228	99.92 %REC ± NA (NA) C:NA T:NA	pCi/L		02/27/24 12:39	
50365772004	**AP-10B MSD**					
EPA 903.1	Radium-226	114.39 %REC 32.55RPD ± NA (NA) C:NA T:NA	pCi/L		02/26/24 13:31	
EPA 904.0	Radium-228	77.04 %REC 25.85RPD ± NA (NA) C:NA T:NA	pCi/L		02/27/24 12:39	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

Sample: AP-10B **Lab ID: 50365772001** Collected: 02/13/24 13:15 Received: 02/14/24 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.15**	mg/L	0.050	0.0090	1		02/24/24 11:34	24959-67-9	
Chloride	**13.9**	mg/L	0.25	0.067	1		02/24/24 11:34	16887-00-6	
Fluoride	**0.13**	mg/L	0.10	0.017	1		02/24/24 11:34	16984-48-8	
Sulfate	**77.7**	mg/L	2.5	1.9	10		02/24/24 11:50	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**806**	ug/L	100	11.4	1	02/18/24 20:20	02/19/24 17:46	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	02/18/24 20:20	02/19/24 17:46	7440-43-9	
Calcium	**135000**	ug/L	1000	56.7	1	02/18/24 20:20	02/19/24 17:46	7440-70-2	
Iron	**692**	ug/L	100	18.1	1	02/18/24 20:20	02/19/24 17:46	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	02/18/24 20:20	02/19/24 17:46	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	02/18/24 20:20	02/19/24 17:46	7439-93-2	
Magnesium	**33500**	ug/L	1000	32.8	1	02/18/24 20:20	02/19/24 17:46	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	02/18/24 20:20	02/19/24 17:46	7439-98-7	
Potassium	ND	ug/L	1000	120	1	02/18/24 20:20	02/19/24 17:46	7440-09-7	
Silica	**12400**	ug/L	450		1	02/18/24 20:20	02/19/24 17:46	7631-86-9	N2
Sodium	**17100**	ug/L	1000	48.2	1	02/18/24 20:20	02/19/24 17:46	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**820**	ug/L	100	6.2	1	02/21/24 08:18	02/22/24 00:38	7440-42-8	
Iron, Dissolved	ND	ug/L	100	30.0	1	02/21/24 08:18	02/22/24 00:38	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	02/21/24 08:18	02/22/24 00:38	7439-93-2	
Magnesium, Dissolved	**32700**	ug/L	1000	33.6	1	02/21/24 08:18	02/22/24 00:38	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	02/21/24 08:18	02/22/24 00:38	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	97.8	1	02/21/24 08:18	02/22/24 00:38	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**282**	ug/L	10.0	1.5	1	02/15/24 15:21	02/16/24 21:56	7429-90-5	
Arsenic	ND	ug/L	1.0	0.11	1	02/15/24 15:21	02/16/24 21:56	7440-38-2	
Barium	**94.4**	ug/L	1.0	0.090	1	02/15/24 15:21	02/16/24 21:56	7440-39-3	
Cobalt	ND	ug/L	1.0	0.16	1	02/15/24 15:21	02/16/24 21:56	7440-48-4	
Manganese	**28.5**	ug/L	1.0	0.26	1	02/15/24 15:21	02/16/24 21:56	7439-96-5	
Selenium	**1.2**	ug/L	1.0	0.22	1	02/15/24 15:21	02/16/24 21:56	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	02/20/24 09:45	02/20/24 21:04	7429-90-5	
Manganese, Dissolved	ND	ug/L	1.0	0.15	1	02/20/24 09:45	02/20/24 21:04	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

Sample: AP-10B **Lab ID: 50365772001** Collected: 02/13/24 13:15 Received: 02/14/24 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**390**	mg/L	10.0	10.0	1		02/15/24 16:12		
Alkalinity,Bicarbonate (CaCO3)	**390**	mg/L	10.0	10.0	1		02/15/24 16:12		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		02/15/24 16:12		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**489**	mg/L	10.0	10.0	1		02/19/24 11:48		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		02/27/24 12:48		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		02/16/24 09:03	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	ND	mg/L	0.20	0.14	1		02/16/24 14:47	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**1.6**	mg/L	0.10	0.013	1		02/14/24 21:27	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		02/14/24 21:27	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.15	1	02/26/24 10:00	02/26/24 14:08		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	ND	mg/L	1.0	0.25	1		02/22/24 19:04	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.6**	mg/L	1.0	0.25	1		02/26/24 20:09		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

Sample: AP-10I **Lab ID: 50365772002** Collected: 02/13/24 15:30 Received: 02/14/24 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**2.7**	mg/L	0.050	0.0090	1		02/24/24 12:06	24959-67-9	
Chloride	**146**	mg/L	2.5	0.67	10		02/24/24 12:22	16887-00-6	
Fluoride	**0.14**	mg/L	0.10	0.017	1		02/24/24 12:06	16984-48-8	
Sulfate	**924**	mg/L	25.0	19.0	100		02/24/24 12:39	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**14300**	ug/L	100	11.4	1	02/18/24 20:20	02/19/24 17:53	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	02/18/24 20:20	02/19/24 17:53	7440-43-9	
Calcium	**410000**	ug/L	5000	284	5	02/18/24 20:20	02/19/24 18:34	7440-70-2	
Iron	**5920**	ug/L	100	18.1	1	02/18/24 20:20	02/19/24 17:53	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	02/18/24 20:20	02/19/24 17:53	7439-92-1	
Lithium	**29.7**	ug/L	20.0	5.1	1	02/18/24 20:20	02/19/24 17:53	7439-93-2	
Magnesium	**52100**	ug/L	1000	32.8	1	02/18/24 20:20	02/19/24 17:53	7439-95-4	
Molybdenum	**161**	ug/L	10.0	1.1	1	02/18/24 20:20	02/19/24 17:53	7439-98-7	
Potassium	**12200**	ug/L	1000	120	1	02/18/24 20:20	02/19/24 17:53	7440-09-7	
Silica	**13600**	ug/L	450		1	02/18/24 20:20	02/19/24 17:53	7631-86-9	N2
Sodium	**93500**	ug/L	1000	48.2	1	02/18/24 20:20	02/19/24 17:53	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**14000**	ug/L	100	6.2	1	02/21/24 08:18	02/22/24 00:45	7440-42-8	
Iron, Dissolved	**5200**	ug/L	100	30.0	1	02/21/24 08:18	02/22/24 00:45	7439-89-6	
Lithium, Dissolved	**27.6**	ug/L	20.0	6.8	1	02/21/24 08:18	02/22/24 00:45	7439-93-2	
Magnesium, Dissolved	**49300**	ug/L	1000	33.6	1	02/21/24 08:18	02/22/24 00:45	7439-95-4	
Molybdenum, Dissolved	**156**	ug/L	10.0	0.78	1	02/21/24 08:18	02/22/24 00:45	7439-98-7	
Potassium, Dissolved	**12200**	ug/L	1000	97.8	1	02/21/24 08:18	02/22/24 00:45	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**68.4**	ug/L	10.0	1.5	1	02/15/24 15:21	02/16/24 22:13	7429-90-5	
Arsenic	ND	ug/L	1.0	0.11	1	02/15/24 15:21	02/16/24 22:13	7440-38-2	
Barium	**104**	ug/L	1.0	0.090	1	02/15/24 15:21	02/16/24 22:13	7440-39-3	
Cobalt	ND	ug/L	1.0	0.16	1	02/15/24 15:21	02/16/24 22:13	7440-48-4	
Manganese	**3170**	ug/L	20.0	5.2	20	02/15/24 15:21	02/20/24 21:24	7439-96-5	
Selenium	ND	ug/L	1.0	0.22	1	02/15/24 15:21	02/16/24 22:13	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	02/20/24 09:45	02/21/24 00:03	7429-90-5	
Manganese, Dissolved	**3140**	ug/L	20.0	3.0	20	02/20/24 09:45	02/20/24 23:00	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

Sample: AP-10I **Lab ID: 50365772002** Collected: 02/13/24 15:30 Received: 02/14/24 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**186**	mg/L	10.0	10.0	1		02/15/24 16:12		
Alkalinity,Bicarbonate (CaCO3)	**186**	mg/L	10.0	10.0	1		02/15/24 16:12		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		02/15/24 16:12		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1820**	mg/L	20.0	20.0	1		02/19/24 11:48		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		02/27/24 12:50		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		02/16/24 09:03	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**0.23**	mg/L	0.20	0.14	1		02/16/24 14:52	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		02/14/24 21:36	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		02/14/24 21:36	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.40**	mg/L	0.15	0.15	1	02/26/24 10:00	02/26/24 14:09		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**2.2**	mg/L	1.0	0.25	1		02/22/24 19:35	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.0**	mg/L	1.0	0.25	1		02/26/24 20:41		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

QC Batch: 775724
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50365772001, 50365772002

METHOD BLANK: 3551038 Matrix: Water
Associated Lab Samples: 50365772001, 50365772002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	02/21/24 14:28	
Chloride	mg/L	ND	0.25	0.067	02/21/24 14:28	
Fluoride	mg/L	ND	0.10	0.017	02/21/24 14:28	
Sulfate	mg/L	ND	0.25	0.19	02/21/24 14:28	

LABORATORY CONTROL SAMPLE: 3551039

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.94	94	80-120	
Chloride	mg/L	2.5	2.5	101	80-120	
Fluoride	mg/L	1	1.0	100	80-120	
Sulfate	mg/L	5	4.8	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3551040 3551041

Parameter	Units	50365772001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	0.15	1	1	1.1	1.1	96	92	80-120	4	15	
Chloride	mg/L	13.9	2.5	2.5	16.2	16.0	91	81	80-120	2	15	
Fluoride	mg/L	0.13	1	1	1.1	1.1	99	96	80-120	2	15	
Sulfate	mg/L	77.7	50	50	128	124	100	92	80-120	3	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

QC Batch: 775846
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50365772001, 50365772002

METHOD BLANK: 3551691 Matrix: Water
Associated Lab Samples: 50365772001, 50365772002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	11.4	02/19/24 19:42	
Cadmium	ug/L	ND	2.0	0.74	02/19/24 19:42	
Calcium	ug/L	ND	1000	56.7	02/19/24 19:42	
Iron	ug/L	ND	100	18.1	02/19/24 19:42	
Lead	ug/L	ND	10.0	4.0	02/19/24 19:42	
Lithium	ug/L	ND	20.0	5.1	02/19/24 19:42	
Magnesium	ug/L	ND	1000	32.8	02/19/24 19:42	
Molybdenum	ug/L	ND	10.0	1.1	02/19/24 19:42	
Potassium	ug/L	ND	1000	120	02/19/24 19:42	
Silica	ug/L	ND	450		02/19/24 19:42	N2
Sodium	ug/L	ND	1000	48.2	02/19/24 19:42	

LABORATORY CONTROL SAMPLE: 3551692

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	972	97	80-120	
Cadmium	ug/L	1000	996	100	80-120	
Calcium	ug/L	10000	10200	102	80-120	
Iron	ug/L	10000	10200	102	80-120	
Lead	ug/L	1000	968	97	80-120	
Lithium	ug/L	1000	1040	104	80-120	
Magnesium	ug/L	10000	9780	98	80-120	
Molybdenum	ug/L	1000	1040	104	80-120	
Potassium	ug/L	10000	10300	103	80-120	
Silica	ug/L	10700	11100	103	80-120	N2
Sodium	ug/L	10000	9900	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3551693 3551694

Parameter	Units	50365772001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	806	1000	1000	1790	1820	99	102	75-125	2	20	
Cadmium	ug/L	ND	1000	1000	988	996	99	100	75-125	1	20	
Calcium	ug/L	135000	10000	10000	143000	146000	86	110	75-125	2	20	
Iron	ug/L	692	10000	10000	10700	10900	100	102	75-125	1	20	
Lead	ug/L	ND	1000	1000	923	930	92	93	75-125	1	20	
Lithium	ug/L	ND	1000	1000	1010	1020	101	101	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3551693 3551694

Parameter	Units	50365772001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Magnesium	ug/L	33500	10000	10000	43000	43700	94	102	75-125	2	20	
Molybdenum	ug/L	ND	1000	1000	1020	1030	102	103	75-125	1	20	
Potassium	ug/L	ND	10000	10000	10800	10600	98	97	75-125	1	20	
Silica	ug/L	12400	10700	10700	23600	24100	104	109	75-125	2	20	N2
Sodium	ug/L	17100	10000	10000	26400	26700	93	96	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

QC Batch: 776452
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50365772001, 50365772002

METHOD BLANK: 3554237 Matrix: Water
Associated Lab Samples: 50365772001, 50365772002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	02/22/24 00:35	
Iron, Dissolved	ug/L	ND	100	30.0	02/22/24 00:35	
Lithium, Dissolved	ug/L	ND	20.0	6.8	02/22/24 00:35	
Magnesium, Dissolved	ug/L	ND	1000	33.6	02/22/24 00:35	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	02/22/24 00:35	
Potassium, Dissolved	ug/L	ND	1000	97.8	02/22/24 00:35	

LABORATORY CONTROL SAMPLE: 3554238

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	967	97	80-120	
Iron, Dissolved	ug/L	10000	9620	96	80-120	
Lithium, Dissolved	ug/L	1000	1020	102	80-120	
Magnesium, Dissolved	ug/L	10000	9580	96	80-120	
Molybdenum, Dissolved	ug/L	1000	1020	102	80-120	
Potassium, Dissolved	ug/L	10000	9750	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3554239 3554240

Parameter	Units	50365772001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	820	1000	1000	1810	1810	99	98	75-125	0	20	
Iron, Dissolved	ug/L	ND	10000	10000	9420	9390	94	94	75-125	0	20	
Lithium, Dissolved	ug/L	ND	1000	1000	1020	1020	102	102	75-125	0	20	
Magnesium, Dissolved	ug/L	32700	10000	10000	41500	41300	88	86	75-125	1	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1010	1010	101	101	75-125	0	20	
Potassium, Dissolved	ug/L	ND	10000	10000	10600	10400	97	96	75-125	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3554241 3554242

Parameter	Units	50365835001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	<100	1000	1000	1010	1020	95	95	75-125	1	20	
Iron, Dissolved	ug/L	2190	10000	10000	11500	11700	93	95	75-125	1	20	
Lithium, Dissolved	ug/L	<20.0	1000	1000	991	1010	99	101	75-125	2	20	
Magnesium, Dissolved	ug/L	20200	10000	10000	28900	29300	87	91	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3554241 3554242

Parameter	Units	50365835001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Molybdenum, Dissolved	ug/L	<10.0	1000	1000	1000	1020	100	102	75-125	1	20	
Potassium, Dissolved	ug/L	70.1 mg/L	10000	10000	77700	79700	76	96	75-125	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3554243 3554244

Parameter	Units	50366087004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	ND	1000	1000	1020	1000	99	98	75-125	1	20	
Iron, Dissolved	ug/L	ND	10000	10000	9680	9550	96	95	75-125	1	20	
Lithium, Dissolved	ug/L	ND	1000	1000	1030	1020	103	102	75-125	1	20	
Magnesium, Dissolved	ug/L	7780	10000	10000	17400	17000	96	92	75-125	2	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1030	1020	103	102	75-125	2	20	
Potassium, Dissolved	ug/L	ND	10000	10000	10600	10400	98	96	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

QC Batch: 775583
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50365772001, 50365772002

METHOD BLANK: 3550365 Matrix: Water
Associated Lab Samples: 50365772001, 50365772002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	1.5	02/16/24 20:44	
Arsenic	ug/L	ND	1.0	0.11	02/16/24 20:44	
Barium	ug/L	ND	1.0	0.090	02/16/24 20:44	
Cobalt	ug/L	ND	1.0	0.16	02/16/24 20:44	
Manganese	ug/L	ND	1.0	0.26	02/16/24 20:44	
Selenium	ug/L	ND	1.0	0.22	02/16/24 20:44	

LABORATORY CONTROL SAMPLE: 3550366

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	396	99	80-120	
Arsenic	ug/L	40	37.7	94	80-120	
Barium	ug/L	40	40.0	100	80-120	
Cobalt	ug/L	40	40.7	102	80-120	
Manganese	ug/L	40	41.5	104	80-120	
Selenium	ug/L	40	39.0	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3550367 3550368

Parameter	Units	50365772001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	282	400	400	710	699	107	104	75-125	2	20	
Arsenic	ug/L	ND	40	40	38.3	37.8	95	94	75-125	1	20	
Barium	ug/L	94.4	40	40	133	134	96	100	75-125	1	20	
Cobalt	ug/L	ND	40	40	38.9	38.9	96	96	75-125	0	20	
Manganese	ug/L	28.5	40	40	68.4	67.8	100	98	75-125	1	20	
Selenium	ug/L	1.2	40	40	38.6	39.0	94	94	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

QC Batch: 776020
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50365772001, 50365772002

METHOD BLANK: 3552714 Matrix: Water
Associated Lab Samples: 50365772001, 50365772002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.6	02/20/24 20:04	
Manganese, Dissolved	ug/L	ND	1.0	0.15	02/20/24 20:04	

LABORATORY CONTROL SAMPLE: 3552715

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	389	97	80-120	
Manganese, Dissolved	ug/L	40	41.5	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3552716 3552717

Parameter	Units	50365772001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	396	412	98	103	75-125	4	20	
Manganese, Dissolved	ug/L	ND	40	40	40.4	40.6	100	101	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

QC Batch: 775701
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50365772001, 50365772002

METHOD BLANK: 3550928 Matrix: Water
Associated Lab Samples: 50365772001, 50365772002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	02/15/24 16:12	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	02/15/24 16:12	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	02/15/24 16:12	

LABORATORY CONTROL SAMPLE: 3550929

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.7	99	90-110	

SAMPLE DUPLICATE: 3550930

Parameter	Units	50365746001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	267	265	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	267	265	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	<10.0	ND		20	

SAMPLE DUPLICATE: 3550931

Parameter	Units	50365772001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	390	388	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	390	388	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

QC Batch: 776114
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50365772001, 50365772002

METHOD BLANK: 3553089 Matrix: Water
Associated Lab Samples: 50365772001, 50365772002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	02/19/24 10:56	

LABORATORY CONTROL SAMPLE: 3553090

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	293	98	80-120	

SAMPLE DUPLICATE: 3553091

Parameter	Units	50365760008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	173	165	5	10	

SAMPLE DUPLICATE: 3553092

Parameter	Units	50365772001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	489	484	1	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

QC Batch: 777589
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50365772001, 50365772002

SAMPLE DUPLICATE: 3559035

Parameter	Units	50365668007 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.2	7.1	1	2	H3

SAMPLE DUPLICATE: 3559036

Parameter	Units	50365772001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.2	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

QC Batch: 775869
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50365772001, 50365772002

METHOD BLANK: 3551747 Matrix: Water
Associated Lab Samples: 50365772001, 50365772002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	02/16/24 09:03	

LABORATORY CONTROL SAMPLE: 3551748

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.55	109	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3551749 3551750

Parameter	Units	50365407001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.68	0.68	133	134	90-110	1	20	M3

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3551751 3551752

Parameter	Units	50365772001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.55	0.56	107	110	90-110	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

QC Batch: 775953
QC Batch Method: HACH 8146
Analysis Method: HACH 8146
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50365772001, 50365772002

METHOD BLANK: 3552264 Matrix: Water
Associated Lab Samples: 50365772001, 50365772002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.14	02/16/24 14:43	H3,N2

LABORATORY CONTROL SAMPLE: 3552265

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	100	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3552266 3552267

Parameter	Units	50365772001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.1	98	100	90-110	2	20	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3552268 3552269

Parameter	Units	50365995002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.1	101	100	90-110	1	20	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

QC Batch: 775630
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50365772001, 50365772002

METHOD BLANK: 3550617 Matrix: Water
Associated Lab Samples: 50365772001, 50365772002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	02/14/24 21:04	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	02/14/24 21:04	

LABORATORY CONTROL SAMPLE: 3550618

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	101	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3550619 3550620

Parameter	Units	50365772001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	1.6	1	1	2.7	2.7	105	107	90-110	1	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.1	1.1	108	108	90-110	1	20	

MATRIX SPIKE SAMPLE: 3550621

Parameter	Units	50365782010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.1	104	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.1	106	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

QC Batch: 777337
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50365772001, 50365772002

METHOD BLANK: 3558286 Matrix: Water
Associated Lab Samples: 50365772001, 50365772002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	02/26/24 14:04	

LABORATORY CONTROL SAMPLE: 3558287

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.7			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3558288 3558289

Parameter	Units	50365772001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.7	1.7				3		

MATRIX SPIKE SAMPLE: 3558290

Parameter	Units	50365835002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	<0.15		1.6			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

QC Batch: 776843
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50365772001, 50365772002

METHOD BLANK: 3555928 Matrix: Water
Associated Lab Samples: 50365772001, 50365772002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.25	02/22/24 14:29	

LABORATORY CONTROL SAMPLE: 3555929

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.5	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3555930 3555931

Parameter	Units	50365772001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	ND	10	10	10.5	10.5	97	96	80-120	0	20	

MATRIX SPIKE SAMPLE: 3555934

Parameter	Units	50365739003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.5	10	10.8	93	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

QC Batch: 777429
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50365772001, 50365772002

METHOD BLANK: 3558559 Matrix: Water
Associated Lab Samples: 50365772001, 50365772002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	02/26/24 19:18	

LABORATORY CONTROL SAMPLE: 3558560

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.5	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3558561 3558562

Parameter	Units	50365772001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.6	10	10	10.8	10.7	92	91	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3558563 3558564

Parameter	Units	50365981003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.6	10	10	12.0	11.7	94	91	80-120	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

Sample: AP-10B **Lab ID: 50365772001** Collected: 02/13/24 13:15 Received: 02/14/24 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.0604 ± 0.355 (0.792) C:NA T:93%**	pCi/L	02/26/24 13:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.750 ± 0.437 (0.799) C:73% T:85%**	pCi/L	02/27/24 12:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.750 ± 0.792 (1.59)**	pCi/L	02/28/24 09:49	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

Sample: AP-10I **Lab ID: 50365772002** Collected: 02/13/24 15:30 Received: 02/14/24 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.845 ± 0.737 (1.12) C:NA T:91%**	pCi/L	02/26/24 13:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.86 ± 0.620 (0.797) C:71% T:80%**	pCi/L	02/27/24 12:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.71 ± 1.36 (1.92)**	pCi/L	02/28/24 09:49	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

Sample: AP-10B MS **Lab ID: 50365772003** Collected: 02/13/24 13:15 Received: 02/14/24 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**82.37 %REC ± NA (NA) C:NA T:NA**	pCi/L	02/26/24 13:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**99.92 %REC ± NA (NA) C:NA T:NA**	pCi/L	02/27/24 12:39	15262-20-1	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

Sample: AP-10B MSD **Lab ID: 50365772004** Collected: 02/13/24 13:15 Received: 02/14/24 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**114.39 %REC 32.55RPD ± NA (NA) C:NA T:NA**	pCi/L	02/26/24 13:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**77.04 %REC 25.85RPD ± NA (NA) C:NA T:NA**	pCi/L	02/27/24 12:39	15262-20-1	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

QC Batch: 649265
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50365772001, 50365772002, 50365772003, 50365772004

METHOD BLANK: 3163894 Matrix: Water
Associated Lab Samples: 50365772001, 50365772002, 50365772003, 50365772004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.167 ± 0.329 (0.601) C:NA T:91%	pCi/L	02/26/24 13:15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

QC Batch: 649266
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50365772001, 50365772002, 50365772003, 50365772004

METHOD BLANK: 3163895 Matrix: Water
Associated Lab Samples: 50365772001, 50365772002, 50365772003, 50365772004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.176 ± 0.375 (0.830) C:68% T:89%	pCi/L	02/27/24 12:37	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365772

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50365772001	**AP-10B**	EPA 9056	775724		
50365772002	**AP-10I**	EPA 9056	775724		
50365772001	**AP-10B**	EPA 3010	775846	EPA 6010	776249
50365772002	**AP-10I**	EPA 3010	775846	EPA 6010	776249
50365772001	**AP-10B**	EPA 3010	776452	EPA 6010	776776
50365772002	**AP-10I**	EPA 3010	776452	EPA 6010	776776
50365772001	**AP-10B**	EPA 200.2	775583	EPA 6020	775831
50365772002	**AP-10I**	EPA 200.2	775583	EPA 6020	775831
50365772001	**AP-10B**	EPA 200.2	776020	EPA 6020	776469
50365772002	**AP-10I**	EPA 200.2	776020	EPA 6020	776469
50365772001	**AP-10B**	EPA 903.1	649265		
50365772002	**AP-10I**	EPA 903.1	649265		
50365772003	**AP-10B MS**	EPA 903.1	649265		
50365772004	**AP-10B MSD**	EPA 903.1	649265		
50365772001	**AP-10B**	EPA 904.0	649266		
50365772002	**AP-10I**	EPA 904.0	649266		
50365772003	**AP-10B MS**	EPA 904.0	649266		
50365772004	**AP-10B MSD**	EPA 904.0	649266		
50365772001	**AP-10B**	Total Radium Calculation	651644		
50365772002	**AP-10I**	Total Radium Calculation	651644		
50365772001	**AP-10B**	SM 2320B	775701		
50365772002	**AP-10I**	SM 2320B	775701		
50365772001	**AP-10B**	SM 2540C	776114		
50365772002	**AP-10I**	SM 2540C	776114		
50365772001	**AP-10B**	SM 4500-H+B	777589		
50365772002	**AP-10I**	SM 4500-H+B	777589		
50365772001	**AP-10B**	SM 4500-S2-D	775869		
50365772002	**AP-10I**	SM 4500-S2-D	775869		
50365772001	**AP-10B**	HACH 8146	775953		
50365772002	**AP-10I**	HACH 8146	775953		
50365772001	**AP-10B**	EPA 353.2	775630		
50365772002	**AP-10I**	EPA 353.2	775630		
50365772001	**AP-10B**	EPA 365.1	777337	EPA 365.1	777435
50365772002	**AP-10I**	EPA 365.1	777337	EPA 365.1	777435
50365772001	**AP-10B**	SM 5310C	776843		
50365772002	**AP-10I**	SM 5310C	776843		
50365772001	**AP-10B**	SM 5310C	777429		
50365772002	**AP-10I**	SM 5310C	777429		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO# : 50365772

50365772

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A — Required Client Information

Company:	Atlas Indianapolis
Address:	7988 Centerpoint Drive Suite 100
	Indianapolis, IN 46256
Email:	mark.breting@oneatlas.com
Phone:	(317)579-4082 Fax:
Requested Due Date:	

Section B — Required Project Information:

Report To:	Mark Breting
Copy To:	
Purchase Order #:	
Project Name:	Petersburg P4R3 Nov 2023
Project #:	

Section C — Invoice Information:

Attention:	Accounts Payable - Paula Sedam
Company Name:	Atlas Indianapolis
Address:	
Pace Quote:	
Pace Project Manager:	Will Statz
Pace Profile #:	10498/53

Regulatory Agency
State / Location
IN

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO2, NO3 Wet	(Br, Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity*, Ferrous Iron, pH	TOC by 5310C	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum	Residual Chlorine (Y/N)	
																		Requested Analysis Filtered (Y/N)				Y			Y					
1	AP-10B	WT	G			2-13	1315		11	✓	✓	✓		✓					✓								✓		001
2	AP-10I	WT	G			2-13	1530		11										✓								✓		002
3	MS 1	WT	G			2-13	1315		11										✓								✓		
4	MSD 1	WT	G			2-13	1315		11										✓								✓		
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
* Metals: 6010 (B, Cd, Fe, Pb, Mo, Ca, Mg, Na, K, Li, sila) (11)	Hayley Torres/ATLAS	2-13	16:30	FedEx	2-13	16:30				
6020 (Al, Mn, Co, As, Se, Ba) (6)	FedEx	2/14	0910		2/14	0910	0.4	y	y	y
** Dissolved FF 6010 (B, Fe, Mo, Mg, K, Li) (6) FF 6020 (Al, Mn) (2)							0.7			
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	Hayley Torres		
SIGNATURE of SAMPLER:		DATE Signed:	2-13-24

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 2/14/24 1050 SMC

1. **Courier:** ☒ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No

(If yes)Seals Intact: ☒ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D (E) F G H

4. **Cooler Temperature(s):** 0.5/0.4 | 0.8/0.7 | | |
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☒ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? **Analysis:** NO3	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 1100			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)		✓	Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1												3	3			6	3	6	3	3	3		3				WT	✓	✓		✓
2												1	1			2	1	2	1	1	1		1				↓	✓	✓		✓
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

May 22, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on February 15, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50365894001	**AP-11B**	Water	02/14/24 12:15	02/15/24 09:25
50365894002	**AP-11I**	Water	02/14/24 14:20	02/15/24 09:25

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50365894001	**AP-11B**	EPA 9056	KBB	4	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	ZM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50365894002	**AP-11I**	EPA 9056	KBB	4	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	CAW, MTM	2	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	DAW	2	PASI-I
		EPA 365.1	ZM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50365894001	**AP-11B**					
EPA 9056	Chloride	4.8	mg/L	0.25	02/23/24 14:40	
EPA 9056	Fluoride	0.15	mg/L	0.10	02/23/24 14:40	
EPA 9056	Sulfate	344	mg/L	2.5	02/23/24 14:59	
EPA 6010	Boron	863	ug/L	100	02/20/24 23:09	
EPA 6010	Calcium	139000	ug/L	1000	02/20/24 23:09	
EPA 6010	Iron	899	ug/L	100	02/20/24 23:09	
EPA 6010	Magnesium	49700	ug/L	1000	02/20/24 23:09	
EPA 6010	Silica	20300	ug/L	450	02/20/24 23:09	N2
EPA 6010	Sodium	9220	ug/L	1000	02/20/24 23:09	
EPA 6010	Boron, Dissolved	862	ug/L	100	02/22/24 23:30	
EPA 6010	Iron, Dissolved	266	ug/L	100	02/22/24 23:30	
EPA 6010	Magnesium, Dissolved	49800	ug/L	1000	02/22/24 23:30	
EPA 6020	Aluminum	221	ug/L	10.0	02/20/24 01:35	
EPA 6020	Barium	16.1	ug/L	1.0	02/20/24 01:35	
EPA 6020	Manganese	264	ug/L	2.0	02/20/24 11:27	
EPA 6020	Manganese, Dissolved	264	ug/L	2.0	02/21/24 15:33	
EPA 903.1	Radium-226	0.0554 ± 0.360 (0.726) C:NA T:90%	pCi/L		03/04/24 14:40	
EPA 904.0	Radium-228	0.434 ± 0.450 (0.933) C:65% T:81%	pCi/L		03/01/24 14:17	
Total Radium Calculation	Total Radium	0.489 ± 0.810 (1.66)	pCi/L		03/06/24 10:30	
SM 2320B	Alkalinity, Total as CaCO3	221	mg/L	10.0	02/19/24 21:30	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	221	mg/L	10.0	02/19/24 21:30	
SM 2540C	Total Dissolved Solids	657	mg/L	10.0	02/20/24 07:25	
SM 4500-H+B	pH at 25 Degrees C	6.8	Std. Units	0.10	02/29/24 13:15	H3
HACH 8146	Iron, Ferrous	0.32	mg/L	0.20	02/16/24 15:01	H3,N2
EPA 365.1	Phosphate as P04	0.26	mg/L	0.15	02/28/24 19:13	
SM 5310C	Total Organic Carbon	1.3	mg/L	1.0	02/27/24 20:31	
SM 5310C	Dissolved Organic Carbon	1.4	mg/L	1.0	02/26/24 20:52	
50365894002	**AP-11I**					
EPA 9056	Bromide	0.089	mg/L	0.050	02/23/24 15:57	
EPA 9056	Chloride	8.1	mg/L	0.25	02/23/24 15:57	
EPA 9056	Fluoride	0.12	mg/L	0.10	02/23/24 15:57	
EPA 9056	Sulfate	391	mg/L	2.5	02/23/24 16:17	
EPA 6010	Boron	1100	ug/L	100	02/20/24 23:11	
EPA 6010	Calcium	177000	ug/L	1000	02/20/24 23:11	
EPA 6010	Iron	22200	ug/L	100	02/20/24 23:11	
EPA 6010	Magnesium	56500	ug/L	1000	02/20/24 23:11	
EPA 6010	Silica	29900	ug/L	450	02/20/24 23:11	N2
EPA 6010	Sodium	8320	ug/L	1000	02/20/24 23:11	
EPA 6010	Boron, Dissolved	1100	ug/L	100	02/22/24 23:31	
EPA 6010	Iron, Dissolved	21500	ug/L	100	02/22/24 23:31	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50365894002	**AP-11I**					
EPA 6010	Magnesium, Dissolved	56100	ug/L	1000	02/22/24 23:31	
EPA 6020	Aluminum	128	ug/L	10.0	02/20/24 01:38	
EPA 6020	Arsenic	1.6	ug/L	1.0	02/20/24 01:38	
EPA 6020	Barium	61.7	ug/L	1.0	02/20/24 01:38	
EPA 6020	Manganese	6150	ug/L	50.0	02/20/24 01:21	
EPA 6020	Aluminum, Dissolved	126	ug/L	10.0	02/22/24 15:54	
EPA 6020	Manganese, Dissolved	6220	ug/L	50.0	02/20/24 22:36	
EPA 903.1	Radium-226	0.143 ± 0.337 (0.625) C:NA T:91%	pCi/L		03/04/24 14:40	
EPA 904.0	Radium-228	0.405 ± 0.406 (0.832) C:65% T:81%	pCi/L		03/01/24 14:17	
Total Radium Calculation	Total Radium	0.548 ± 0.743 (1.46)	pCi/L		03/06/24 10:30	
SM 2320B	Alkalinity, Total as CaCO3	308	mg/L	10.0	02/19/24 21:30	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	308	mg/L	10.0	02/19/24 21:30	
SM 2540C	Total Dissolved Solids	871	mg/L	10.0	02/20/24 07:25	
SM 4500-H+B	pH at 25 Degrees C	6.8	Std. Units	0.10	02/29/24 13:16	H3
HACH 8146	Iron, Ferrous	8.8	mg/L	1.0	02/16/24 15:01	H3,N2
EPA 365.1	Phosphate as P04	1.6	mg/L	0.15	02/28/24 19:13	
SM 5310C	Total Organic Carbon	2.3	mg/L	1.0	02/27/24 20:41	
SM 5310C	Dissolved Organic Carbon	2.5	mg/L	1.0	02/26/24 21:02	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

Sample: AP-11B **Lab ID: 50365894001** Collected: 02/14/24 12:15 Received: 02/15/24 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	ND	mg/L	0.050	0.0090	1		02/23/24 14:40	24959-67-9	
Chloride	**4.8**	mg/L	0.25	0.067	1		02/23/24 14:40	16887-00-6	
Fluoride	**0.15**	mg/L	0.10	0.017	1		02/23/24 14:40	16984-48-8	
Sulfate	**344**	mg/L	2.5	1.9	10		02/23/24 14:59	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**863**	ug/L	100	6.2	1	02/20/24 08:01	02/20/24 23:09	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	02/20/24 08:01	02/20/24 23:09	7440-43-9	
Calcium	**139000**	ug/L	1000	67.7	1	02/20/24 08:01	02/20/24 23:09	7440-70-2	
Iron	**899**	ug/L	100	30.0	1	02/20/24 08:01	02/20/24 23:09	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	02/20/24 08:01	02/20/24 23:09	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	02/20/24 08:01	02/20/24 23:09	7439-93-2	
Magnesium	**49700**	ug/L	1000	33.6	1	02/20/24 08:01	02/20/24 23:09	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	02/20/24 08:01	02/20/24 23:09	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	02/20/24 08:01	02/20/24 23:09	7440-09-7	
Silica	**20300**	ug/L	450		1	02/20/24 08:01	02/20/24 23:09	7631-86-9	N2
Sodium	**9220**	ug/L	1000	54.8	1	02/20/24 08:01	02/20/24 23:09	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**862**	ug/L	100	6.2	1	02/21/24 20:26	02/22/24 23:30	7440-42-8	
Iron, Dissolved	**266**	ug/L	100	30.0	1	02/21/24 20:26	02/22/24 23:30	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	02/21/24 20:26	02/22/24 23:30	7439-93-2	
Magnesium, Dissolved	**49800**	ug/L	1000	33.6	1	02/21/24 20:26	02/22/24 23:30	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	02/21/24 20:26	02/22/24 23:30	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	97.8	1	02/21/24 20:26	02/22/24 23:30	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**221**	ug/L	10.0	2.3	1	02/17/24 10:04	02/20/24 01:35	7429-90-5	
Arsenic	ND	ug/L	1.0	0.075	1	02/17/24 10:04	02/20/24 01:35	7440-38-2	
Barium	**16.1**	ug/L	1.0	0.077	1	02/17/24 10:04	02/20/24 01:35	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	02/17/24 10:04	02/20/24 01:35	7440-48-4	
Manganese	**264**	ug/L	2.0	0.34	2	02/17/24 10:04	02/20/24 11:27	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	02/17/24 10:04	02/20/24 01:35	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	02/20/24 09:45	02/21/24 00:19	7429-90-5	
Manganese, Dissolved	**264**	ug/L	2.0	0.30	2	02/20/24 09:45	02/21/24 15:33	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

Sample: AP-11B **Lab ID: 50365894001** Collected: 02/14/24 12:15 Received: 02/15/24 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**221**	mg/L	10.0	10.0	1		02/19/24 21:30		
Alkalinity,Bicarbonate (CaCO3)	**221**	mg/L	10.0	10.0	1		02/19/24 21:30		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		02/19/24 21:30		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**657**	mg/L	10.0	10.0	1		02/20/24 07:25		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.8**	Std. Units	0.10	0.10	1		02/29/24 13:15		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		02/16/24 09:03	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**0.32**	mg/L	0.20	0.14	1		02/16/24 15:01	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		02/16/24 02:40	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		02/16/24 02:40	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.26**	mg/L	0.15	0.15	1	02/28/24 12:03	02/28/24 19:13		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**1.3**	mg/L	1.0	0.25	1		02/27/24 20:31	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.4**	mg/L	1.0	0.25	1		02/26/24 20:52		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

Sample: AP-11I **Lab ID: 50365894002** Collected: 02/14/24 14:20 Received: 02/15/24 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**0.089**	mg/L	0.050	0.0090	1		02/23/24 15:57	24959-67-9	
Chloride	**8.1**	mg/L	0.25	0.067	1		02/23/24 15:57	16887-00-6	
Fluoride	**0.12**	mg/L	0.10	0.017	1		02/23/24 15:57	16984-48-8	
Sulfate	**391**	mg/L	2.5	1.9	10		02/23/24 16:17	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**1100**	ug/L	100	6.2	1	02/20/24 08:01	02/20/24 23:11	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	02/20/24 08:01	02/20/24 23:11	7440-43-9	
Calcium	**177000**	ug/L	1000	67.7	1	02/20/24 08:01	02/20/24 23:11	7440-70-2	
Iron	**22200**	ug/L	100	30.0	1	02/20/24 08:01	02/20/24 23:11	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	02/20/24 08:01	02/20/24 23:11	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	02/20/24 08:01	02/20/24 23:11	7439-93-2	
Magnesium	**56500**	ug/L	1000	33.6	1	02/20/24 08:01	02/20/24 23:11	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	02/20/24 08:01	02/20/24 23:11	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	02/20/24 08:01	02/20/24 23:11	7440-09-7	
Silica	**29900**	ug/L	450		1	02/20/24 08:01	02/20/24 23:11	7631-86-9	N2
Sodium	**8320**	ug/L	1000	54.8	1	02/20/24 08:01	02/20/24 23:11	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1100**	ug/L	100	6.2	1	02/21/24 20:26	02/22/24 23:31	7440-42-8	
Iron, Dissolved	**21500**	ug/L	100	30.0	1	02/21/24 20:26	02/22/24 23:31	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	02/21/24 20:26	02/22/24 23:31	7439-93-2	
Magnesium, Dissolved	**56100**	ug/L	1000	33.6	1	02/21/24 20:26	02/22/24 23:31	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	02/21/24 20:26	02/22/24 23:31	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	97.8	1	02/21/24 20:26	02/22/24 23:31	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**128**	ug/L	10.0	2.3	1	02/17/24 10:04	02/20/24 01:38	7429-90-5	
Arsenic	**1.6**	ug/L	1.0	0.075	1	02/17/24 10:04	02/20/24 01:38	7440-38-2	
Barium	**61.7**	ug/L	1.0	0.077	1	02/17/24 10:04	02/20/24 01:38	7440-39-3	
Cobalt	ND	ug/L	1.0	0.046	1	02/17/24 10:04	02/20/24 01:38	7440-48-4	
Manganese	**6150**	ug/L	50.0	8.4	50	02/17/24 10:04	02/20/24 01:21	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	02/17/24 10:04	02/20/24 01:38	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	**126**	ug/L	10.0	2.6	1	02/20/24 09:45	02/22/24 15:54	7429-90-5	
Manganese, Dissolved	**6220**	ug/L	50.0	7.4	50	02/20/24 09:45	02/20/24 22:36	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

Sample: AP-11I **Lab ID: 50365894002** Collected: 02/14/24 14:20 Received: 02/15/24 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**308**	mg/L	10.0	10.0	1		02/19/24 21:30		
Alkalinity,Bicarbonate (CaCO3)	**308**	mg/L	10.0	10.0	1		02/19/24 21:30		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		02/19/24 21:30		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**871**	mg/L	10.0	10.0	1		02/20/24 07:25		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.8**	Std. Units	0.10	0.10	1		02/29/24 13:16		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		02/16/24 09:03	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**8.8**	mg/L	1.0	0.68	5		02/16/24 15:01	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		02/16/24 02:45	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		02/16/24 02:45	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**1.6**	mg/L	0.15	0.15	1	02/28/24 12:03	02/28/24 19:13		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**2.3**	mg/L	1.0	0.25	1		02/27/24 20:41	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.5**	mg/L	1.0	0.25	1		02/26/24 21:02		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

QC Batch: 775813
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50365894001, 50365894002

METHOD BLANK: 3551522 Matrix: Water
Associated Lab Samples: 50365894001, 50365894002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	02/23/24 12:05	
Chloride	mg/L	ND	0.25	0.067	02/23/24 12:05	
Fluoride	mg/L	ND	0.10	0.017	02/23/24 12:05	
Sulfate	mg/L	ND	0.25	0.19	02/23/24 12:05	

LABORATORY CONTROL SAMPLE: 3551523

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.98	98	80-120	
Chloride	mg/L	2.5	2.3	93	80-120	
Fluoride	mg/L	1	0.93	93	80-120	
Sulfate	mg/L	5	4.7	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3551524 3551525

Parameter	Units	50365972002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	0.66	1	1	1.6	1.6	96	96	80-120	0	15	
Chloride	mg/L	92.0	25	25	114	114	88	89	80-120	0	15	
Fluoride	mg/L	0.37	1	1	1.3	1.3	97	96	80-120	1	15	
Sulfate	mg/L	ND	5	5	4.8	4.8	92	91	80-120	1	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

QC Batch: 776091
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50365894001, 50365894002

METHOD BLANK: 3553016 Matrix: Water
Associated Lab Samples: 50365894001, 50365894002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	02/20/24 22:26	
Cadmium	ug/L	ND	2.0	0.60	02/20/24 22:26	
Calcium	ug/L	ND	1000	67.7	02/20/24 22:26	
Iron	ug/L	ND	100	30.0	02/20/24 22:26	
Lead	ug/L	ND	10.0	2.5	02/20/24 22:26	
Lithium	ug/L	ND	20.0	6.8	02/20/24 22:26	
Magnesium	ug/L	ND	1000	33.6	02/20/24 22:26	
Molybdenum	ug/L	ND	10.0	0.78	02/20/24 22:26	
Potassium	ug/L	ND	1000	97.8	02/20/24 22:26	
Silica	ug/L	ND	450		02/20/24 22:26	N2
Sodium	ug/L	ND	1000	54.8	02/20/24 22:26	

LABORATORY CONTROL SAMPLE: 3553017

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	978	98	80-120	
Cadmium	ug/L	1000	1000	100	80-120	
Calcium	ug/L	10000	10100	101	80-120	
Iron	ug/L	10000	10000	100	80-120	
Lead	ug/L	1000	961	96	80-120	
Lithium	ug/L	1000	1020	102	80-120	
Magnesium	ug/L	10000	9840	98	80-120	
Molybdenum	ug/L	1000	1030	103	80-120	
Potassium	ug/L	10000	9950	99	80-120	
Silica	ug/L	10700	10700	100	80-120	N2
Sodium	ug/L	10000	9720	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3553018 3553019

Parameter	Units	50365849002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	<100	1000	1000	1030	1020	101	100	75-125	1	20	
Cadmium	ug/L	<2.0	1000	1000	1020	1010	102	101	75-125	1	20	
Calcium	ug/L	32000	10000	10000	41500	41100	95	91	75-125	1	20	
Iron	ug/L	<100	10000	10000	10200	10000	101	100	75-125	1	20	
Lead	ug/L	<10.0	1000	1000	964	956	96	96	75-125	1	20	
Lithium	ug/L	<20.0	1000	1000	1040	1020	104	102	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3553018 3553019

Parameter	Units	50365849002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Magnesium	ug/L	9910	10000	10000	19600	19400	97	95	75-125	1	20	
Molybdenum	ug/L	<10.0	1000	1000	1060	1050	106	105	75-125	1	20	
Potassium	ug/L	7330	10000	10000	17200	17000	99	97	75-125	1	20	
Silica	ug/L	6050	10700	10700	17000	16900	103	101	75-125	1	20	N2
Sodium	ug/L	1610	10000	10000	11400	11300	98	97	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

QC Batch: 776455
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50365894001, 50365894002

METHOD BLANK: 3554264 Matrix: Water
Associated Lab Samples: 50365894001, 50365894002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	02/22/24 23:10	
Iron, Dissolved	ug/L	ND	100	30.0	02/22/24 23:10	
Lithium, Dissolved	ug/L	ND	20.0	6.8	02/22/24 23:10	
Magnesium, Dissolved	ug/L	ND	1000	33.6	02/22/24 23:10	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	02/22/24 23:10	
Potassium, Dissolved	ug/L	ND	1000	97.8	02/22/24 23:10	

LABORATORY CONTROL SAMPLE: 3554265

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	973	97	80-120	
Iron, Dissolved	ug/L	10000	9840	98	80-120	
Lithium, Dissolved	ug/L	1000	1010	101	80-120	
Magnesium, Dissolved	ug/L	10000	9780	98	80-120	
Molybdenum, Dissolved	ug/L	1000	1020	102	80-120	
Potassium, Dissolved	ug/L	10000	9540	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3554266 3554267

Parameter	Units	50365972002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	379	1000	1000	1320	1330	94	96	75-125	1	20	
Iron, Dissolved	ug/L	9070	10000	10000	18500	18700	94	96	75-125	1	20	
Lithium, Dissolved	ug/L	15.2	1000	1000	984	993	97	98	75-125	1	20	
Magnesium, Dissolved	ug/L	41900	10000	10000	50800	51200	88	92	75-125	1	20	
Molybdenum, Dissolved	ug/L	66.2	1000	1000	1080	1090	102	103	75-125	1	20	
Potassium, Dissolved	ug/L	5940	10000	10000	15300	15400	94	95	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

QC Batch: 775978
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50365894001, 50365894002

METHOD BLANK: 3552331 Matrix: Water
Associated Lab Samples: 50365894001, 50365894002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	2.3	02/20/24 01:11	
Arsenic	ug/L	ND	1.0	0.075	02/20/24 01:11	
Barium	ug/L	ND	1.0	0.077	02/20/24 01:11	
Cobalt	ug/L	ND	1.0	0.046	02/20/24 01:11	
Manganese	ug/L	ND	1.0	0.17	02/20/24 01:11	
Selenium	ug/L	ND	1.0	0.20	02/20/24 01:11	

LABORATORY CONTROL SAMPLE: 3552332

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	402	101	80-120	
Arsenic	ug/L	40	37.1	93	80-120	
Barium	ug/L	40	38.5	96	80-120	
Cobalt	ug/L	40	40.8	102	80-120	
Manganese	ug/L	40	40.2	101	80-120	
Selenium	ug/L	40	40.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3552333 3552334

Parameter	Units	50365849001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	<10.0	400	400	412	417	103	104	75-125	1	20	
Arsenic	ug/L	20.8	40	40	57.8	58.7	92	95	75-125	2	20	
Barium	ug/L	657	40	40	702	698	113	104	75-125	1	20	E
Cobalt	ug/L	<1.0	40	40	38.6	38.1	95	94	75-125	1	20	
Manganese	ug/L	114	40	40	150	147	90	84	75-125	2	20	
Selenium	ug/L	<1.0	40	40	39.8	41.0	99	102	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

QC Batch: 776020
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50365894001, 50365894002

METHOD BLANK: 3552714 Matrix: Water
Associated Lab Samples: 50365894001, 50365894002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.6	02/20/24 20:04	
Manganese, Dissolved	ug/L	ND	1.0	0.15	02/20/24 20:04	

LABORATORY CONTROL SAMPLE: 3552715

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	389	97	80-120	
Manganese, Dissolved	ug/L	40	41.5	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3552716 3552717

Parameter	Units	50365772001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	396	412	98	103	75-125	4	20	
Manganese, Dissolved	ug/L	ND	40	40	40.4	40.6	100	101	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

QC Batch: 776262
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50365894001, 50365894002

METHOD BLANK: 3553537 Matrix: Water
Associated Lab Samples: 50365894001, 50365894002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	02/19/24 21:30	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	02/19/24 21:30	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	02/19/24 21:30	

LABORATORY CONTROL SAMPLE: 3553538

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	54.6	109	90-110	

SAMPLE DUPLICATE: 3553539

Parameter	Units	50365828008 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	426	431	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	426	431	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3553540

Parameter	Units	50366036001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	253000 ug/L	256	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

QC Batch: 776290
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50365894001, 50365894002

METHOD BLANK: 3553652 Matrix: Water
Associated Lab Samples: 50365894001, 50365894002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	02/20/24 07:19	

LABORATORY CONTROL SAMPLE: 3553653

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	260	87	80-120	

SAMPLE DUPLICATE: 3553654

Parameter	Units	50365885004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	757000 ug/L	772	2	10	

SAMPLE DUPLICATE: 3553655

Parameter	Units	50365902001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	313	291	7	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

QC Batch: 778027
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50365894001, 50365894002

SAMPLE DUPLICATE: 3560959

Parameter	Units	50365888002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.1	0	2	H3

SAMPLE DUPLICATE: 3560960

Parameter	Units	50365981003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.7	7.7	0	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

QC Batch: 775869
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50365894001, 50365894002

METHOD BLANK: 3551747 Matrix: Water
Associated Lab Samples: 50365894001, 50365894002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	02/16/24 09:03	

LABORATORY CONTROL SAMPLE: 3551748

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.55	109	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3551749 3551750

Parameter	Units	50365407001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.68	0.68	133	134	90-110	1	20	M3

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3551751 3551752

Parameter	Units	50365772001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.55	0.56	107	110	90-110	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

QC Batch: 775953
QC Batch Method: HACH 8146
Analysis Method: HACH 8146
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50365894001, 50365894002

METHOD BLANK: 3552264 Matrix: Water
Associated Lab Samples: 50365894001, 50365894002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.14	02/16/24 14:43	H3,N2

LABORATORY CONTROL SAMPLE: 3552265

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	100	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3552266 3552267

Parameter	Units	50365772001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.1	98	100	90-110	2	20	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3552268 3552269

Parameter	Units	50365995002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.1	101	100	90-110	1	20	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

QC Batch: 775839
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50365894001, 50365894002

METHOD BLANK: 3551668 Matrix: Water
Associated Lab Samples: 50365894001, 50365894002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	02/16/24 02:10	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	02/16/24 02:10	

LABORATORY CONTROL SAMPLE: 3551669

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	101	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	101	90-110	

MATRIX SPIKE SAMPLE: 3551672

Parameter	Units	50365893003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	0.31	1	1.4	108	90-110	
Nitrogen, Nitrite	mg/L	ND	1	1.1	105	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

QC Batch: 777769
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50365894001, 50365894002

METHOD BLANK: 3559791 Matrix: Water
Associated Lab Samples: 50365894001, 50365894002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	02/28/24 19:02	

LABORATORY CONTROL SAMPLE: 3559792

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3559793 3559794

Parameter	Units	50365849006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	<0.15			1.6	1.6				1		

MATRIX SPIKE SAMPLE: 3559795

Parameter	Units	50365894002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	1.6		3.2			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

QC Batch: 777635
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50365894001, 50365894002

METHOD BLANK: 3559242 Matrix: Water
Associated Lab Samples: 50365894001, 50365894002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.25	02/27/24 20:11	

LABORATORY CONTROL SAMPLE: 3559243

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.4	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3559244 3559245

Parameter	Units	50365981003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	2.6	10	10	11.6	11.5	90	88	80-120	1	20	

MATRIX SPIKE SAMPLE: 3559247

Parameter	Units	50365894002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	2.3	10	11.1	88	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

QC Batch: 777429
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50365894001, 50365894002

METHOD BLANK: 3558559 Matrix: Water
Associated Lab Samples: 50365894001, 50365894002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	02/26/24 19:18	

LABORATORY CONTROL SAMPLE: 3558560

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.5	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3558561 3558562

Parameter	Units	50365772001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.6	10	10	10.8	10.7	92	91	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3558563 3558564

Parameter	Units	50365981003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.6	10	10	12.0	11.7	94	91	80-120	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

Sample: AP-11B **Lab ID: 50365894001** Collected: 02/14/24 12:15 Received: 02/15/24 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0554 ± 0.360 (0.726) C:NA T:90%**	pCi/L	03/04/24 14:40	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.434 ± 0.450 (0.933) C:65% T:81%**	pCi/L	03/01/24 14:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.489 ± 0.810 (1.66)**	pCi/L	03/06/24 10:30	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

Sample: AP-11I **Lab ID: 50365894002** Collected: 02/14/24 14:20 Received: 02/15/24 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.143 ± 0.337 (0.625) C:NA T:91%**	pCi/L	03/04/24 14:40	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.405 ± 0.406 (0.832) C:65% T:81%**	pCi/L	03/01/24 14:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.548 ± 0.743 (1.46)**	pCi/L	03/06/24 10:30	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

QC Batch: 649416
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50365894001, 50365894002

METHOD BLANK: 3164497 Matrix: Water
Associated Lab Samples: 50365894001, 50365894002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.123 ± 0.213 (0.380) C:NA T:92%	pCi/L	03/04/24 14:28	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

QC Batch: 649417
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50365894001, 50365894002

METHOD BLANK: 3164498 Matrix: Water
Associated Lab Samples: 50365894001, 50365894002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0406 ± 0.305 (0.717) C:70% T:86%	pCi/L	03/01/24 14:14	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50365894

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50365894001	**AP-11B**	EPA 9056	775813		
50365894002	**AP-11I**	EPA 9056	775813		
50365894001	**AP-11B**	EPA 3010	776091	EPA 6010	776516
50365894002	**AP-11I**	EPA 3010	776091	EPA 6010	776516
50365894001	**AP-11B**	EPA 3010	776455	EPA 6010	776995
50365894002	**AP-11I**	EPA 3010	776455	EPA 6010	776995
50365894001	**AP-11B**	EPA 200.2	775978	EPA 6020	776088
50365894002	**AP-11I**	EPA 200.2	775978	EPA 6020	776088
50365894001	**AP-11B**	EPA 200.2	776020	EPA 6020	776469
50365894002	**AP-11I**	EPA 200.2	776020	EPA 6020	776469
50365894001	**AP-11B**	EPA 903.1	649416		
50365894002	**AP-11I**	EPA 903.1	649416		
50365894001	**AP-11B**	EPA 904.0	649417		
50365894002	**AP-11I**	EPA 904.0	649417		
50365894001	**AP-11B**	Total Radium Calculation	653067		
50365894002	**AP-11I**	Total Radium Calculation	653067		
50365894001	**AP-11B**	SM 2320B	776262		
50365894002	**AP-11I**	SM 2320B	776262		
50365894001	**AP-11B**	SM 2540C	776290		
50365894002	**AP-11I**	SM 2540C	776290		
50365894001	**AP-11B**	SM 4500-H+B	778027		
50365894002	**AP-11I**	SM 4500-H+B	778027		
50365894001	**AP-11B**	SM 4500-S2-D	775869		
50365894002	**AP-11I**	SM 4500-S2-D	775869		
50365894001	**AP-11B**	HACH 8146	775953		
50365894002	**AP-11I**	HACH 8146	775953		
50365894001	**AP-11B**	EPA 353.2	775839		
50365894002	**AP-11I**	EPA 353.2	775839		
50365894001	**AP-11B**	EPA 365.1	777769	EPA 365.1	777919
50365894002	**AP-11I**	EPA 365.1	777769	EPA 365.1	777919
50365894001	**AP-11B**	SM 5310C	777635		
50365894002	**AP-11I**	SM 5310C	777635		
50365894001	**AP-11B**	SM 5310C	777429		
50365894002	**AP-11I**	SM 5310C	777429		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO# : 50365894

50365894

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A
Required Client Information:

Company:	Atlas Indianapolis	Report To:	Mark Breting
Address:	7988 Centerpoint Drive Suite 100	Copy To:	
	Indianapolis, IN 46256		
Email:	mark.breting@oneatlas.com	Purchase Order #:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P4R3 Nov 2023
Requested Due Date:		Project #:	

Section C
Invoice Information:

Attention:	Accounts Payable - Paula Sedam
Company Name:	Atlas Indianapolis
Address:	
Pace Quote:	
Pace Project Manager:	Will Statz
Pace Profile #:	10498/53

Regulatory Agency

State / Location
IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test (Y/N)	TDS/ NO2, NO3 Wet	(Br, Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered** (Y)	Alkalinity*, Ferrous Iron, pH	TOC by 5310C	DOC by 5310C (Y)	Sulfide	Phosphate	Rad-226/228 + Sum			Residual Chlorine (Y/N)	
1	AP-11B	WT	G			2-14	12:15		11	✓	✓	✓		✓					✓									✓				
2	AP-11I	WT	G			2-14	14:20		11	|	|	|		|					✓									✓				
3	~~[illegible]~~ MW-12A	WT	G			2-14	1700		11	|	|	|		|					✓									✓				
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
* Metals: 6010 (B, Cd, Fe, Pb, Mo, Ca, Mg, Na, K, Li, sila) (11)	Hayley Torres/ATLAS	2-14-24	17:15	FedEx	2-14-24	17:15				
6020 (Al, Mn, Co, As, Se, Ba) (6)	FedEx	2-15-24	9:25	[signature]	2-15-24	9:25	0.7	y	y	y
** Dissolved FF 6010 (B, Fe, Mo, Mg, K, Li) (6) FF 6020 (Al, Mn) (2)							0.2			
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Hayley Torres

SIGNATURE of SAMPLER: [signature] DATE Signed: 2/14-24

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: RC 2-15-24 10:52

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H
4. **Cooler Temperature(s):** 0.7/0.7 | 0.2/0.2 | | | **(Initial/Corrected)** RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? **Analysis:** NO_3	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 1200		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A ✓
Rush TAT Requested (4 days or less):	✓	✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/ZnAc >9
1												1	1			2	1	2	1	1	1		1				WT	✓	✓		✓
2												1	1			1	1	1	1	1	1		1				1	1	1		1
3												1	1			1	1	1	1	1	1		1				1	1	1		1
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

May 22, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on February 16, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50366019001	**AP-9B**	Water	02/15/24 14:50	02/16/24 09:30
50366019002	**AP-9I**	Water	02/15/24 17:00	02/16/24 09:30
50366019003	**Dup 1**	Water	02/15/24 08:00	02/16/24 09:30

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50366019001	**AP-9B**	EPA 9056	ADM	4	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	WDB	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	MMS	2	PASI-I
		EPA 365.1	ZM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50366019002	**AP-9I**	EPA 9056	ADM	4	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	JPK	6	PASI-I
		EPA 6020	CAW	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	WDB	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	MMS	2	PASI-I
		EPA 365.1	ZM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50366019003	**Dup 1**	EPA 9056	ADM	4	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	JPK	6	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	CAW	6	PASI-I
		EPA 6020	CAW	2	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	WDB	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	BEP	1	PASI-I
		HACH 8146	STS	1	PASI-I
		EPA 353.2	MMS	2	PASI-I
		EPA 365.1	ZM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50366019001	**AP-9B**					
EPA 9056	Bromide	1.6	mg/L	0.050	02/24/24 03:48	
EPA 9056	Chloride	58.8	mg/L	2.5	02/24/24 04:06	
EPA 9056	Sulfate	864	mg/L	25.0	02/24/24 04:24	
EPA 6010	Boron	8900	ug/L	100	02/22/24 00:06	
EPA 6010	Calcium	426000	ug/L	5000	02/22/24 00:16	
EPA 6010	Iron	3980	ug/L	100	02/22/24 00:06	
EPA 6010	Magnesium	51100	ug/L	1000	02/22/24 00:06	
EPA 6010	Molybdenum	162	ug/L	10.0	02/22/24 00:06	
EPA 6010	Potassium	9200	ug/L	1000	02/22/24 00:06	
EPA 6010	Silica	17900	ug/L	450	02/22/24 00:06	N2
EPA 6010	Sodium	22500	ug/L	1000	02/22/24 00:06	
EPA 6010	Boron, Dissolved	8500	ug/L	100	02/23/24 21:57	
EPA 6010	Iron, Dissolved	3900	ug/L	100	02/23/24 21:57	
EPA 6010	Magnesium, Dissolved	49700	ug/L	1000	02/23/24 21:57	
EPA 6010	Molybdenum, Dissolved	156	ug/L	10.0	02/23/24 21:57	
EPA 6010	Potassium, Dissolved	9050	ug/L	1000	02/23/24 21:57	
EPA 6020	Aluminum	40.0	ug/L	10.0	02/20/24 23:43	
EPA 6020	Arsenic	4.2	ug/L	1.0	02/20/24 23:43	
EPA 6020	Barium	47.8	ug/L	1.0	02/20/24 23:43	
EPA 6020	Cobalt	6.1	ug/L	1.0	02/20/24 23:43	
EPA 6020	Manganese	3850	ug/L	50.0	02/20/24 21:36	
EPA 6020	Manganese, Dissolved	3800	ug/L	50.0	02/20/24 22:52	
EPA 903.1	Radium-226	-0.0550 ± 0.470 (0.957) C:NA T:88%	pCi/L		03/08/24 14:18	
EPA 904.0	Radium-228	0.934 ± 0.472 (0.833) C:79% T:84%	pCi/L		03/08/24 11:30	
Total Radium Calculation	Total Radium	0.934 ± 0.942 (1.79)	pCi/L		03/12/24 15:20	
SM 2320B	Alkalinity, Total as CaCO3	351	mg/L	10.0	02/21/24 11:07	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	351	mg/L	10.0	02/21/24 11:07	
SM 2540C	Total Dissolved Solids	1830	mg/L	20.0	02/21/24 08:28	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	03/01/24 13:09	H3
HACH 8146	Iron, Ferrous	4.0	mg/L	0.50	02/16/24 15:26	H3,N2
EPA 365.1	Phosphate as P04	0.19	mg/L	0.15	02/29/24 16:52	
SM 5310C	Total Organic Carbon	2.6	mg/L	1.0	02/29/24 05:37	
SM 5310C	Dissolved Organic Carbon	2.8	mg/L	1.0	02/28/24 03:50	
50366019002	**AP-9I**					
EPA 9056	Bromide	6.5	mg/L	0.050	02/24/24 05:17	
EPA 9056	Chloride	123	mg/L	2.5	02/24/24 05:35	
EPA 9056	Fluoride	0.19	mg/L	0.10	02/24/24 05:17	
EPA 9056	Sulfate	1470	mg/L	25.0	02/24/24 05:53	
EPA 6010	Boron	24100	ug/L	100	02/22/24 00:08	
EPA 6010	Calcium	630000	ug/L	5000	02/22/24 00:18	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50366019002	**AP-9I**					
EPA 6010	Iron	4460	ug/L	100	02/22/24 00:08	
EPA 6010	Lithium	38.8	ug/L	20.0	02/22/24 00:08	
EPA 6010	Magnesium	10800	ug/L	1000	02/22/24 00:08	
EPA 6010	Molybdenum	1740	ug/L	10.0	02/22/24 00:08	
EPA 6010	Potassium	31600	ug/L	1000	02/22/24 00:08	
EPA 6010	Silica	10100	ug/L	450	02/22/24 00:08	N2
EPA 6010	Sodium	38400	ug/L	1000	02/22/24 00:08	
EPA 6010	Boron, Dissolved	23500	ug/L	100	02/23/24 22:02	
EPA 6010	Iron, Dissolved	4140	ug/L	100	02/23/24 22:02	
EPA 6010	Lithium, Dissolved	34.7	ug/L	20.0	02/23/24 22:02	
EPA 6010	Magnesium, Dissolved	10400	ug/L	1000	02/23/24 22:02	
EPA 6010	Molybdenum, Dissolved	1700	ug/L	10.0	02/23/24 22:02	
EPA 6010	Potassium, Dissolved	31700	ug/L	1000	02/23/24 22:02	
EPA 6020	Aluminum	78.6	ug/L	10.0	02/20/24 23:47	
EPA 6020	Arsenic	6.8	ug/L	1.0	02/20/24 23:47	
EPA 6020	Barium	30.1	ug/L	1.0	02/20/24 23:47	
EPA 6020	Manganese	1910	ug/L	20.0	02/20/24 21:40	
EPA 6020	Manganese, Dissolved	1910	ug/L	20.0	02/20/24 22:56	
EPA 903.1	Radium-226	0.242 ± 0.369 (0.636) C:NA T:96%	pCi/L		03/08/24 14:18	
EPA 904.0	Radium-228	0.714 ± 0.401 (0.723) C:79% T:84%	pCi/L		03/08/24 11:30	
Total Radium Calculation	Total Radium	0.956 ± 0.770 (1.36)	pCi/L		03/12/24 15:20	
SM 2320B	Alkalinity, Total as CaCO3	51.8	mg/L	10.0	02/21/24 11:49	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	51.8	mg/L	10.0	02/21/24 11:49	
SM 2540C	Total Dissolved Solids	2570	mg/L	20.0	02/21/24 08:28	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	03/01/24 13:10	H3
HACH 8146	Iron, Ferrous	4.0	mg/L	0.50	02/16/24 15:26	H3,N2
EPA 365.1	Phosphate as P04	0.34	mg/L	0.15	02/29/24 16:52	
SM 5310C	Total Organic Carbon	2.0	mg/L	1.0	02/29/24 05:48	
SM 5310C	Dissolved Organic Carbon	2.7	mg/L	1.0	02/28/24 04:05	
50366019003	**Dup 1**					
EPA 9056	Bromide	1.6	mg/L	0.050	02/24/24 06:11	
EPA 9056	Chloride	58.6	mg/L	2.5	02/24/24 06:29	
EPA 9056	Sulfate	874	mg/L	25.0	02/24/24 06:47	
EPA 6010	Boron	8880	ug/L	100	02/22/24 00:09	
EPA 6010	Calcium	426000	ug/L	5000	02/22/24 00:19	
EPA 6010	Iron	3980	ug/L	100	02/22/24 00:09	
EPA 6010	Magnesium	50800	ug/L	1000	02/22/24 00:09	
EPA 6010	Molybdenum	161	ug/L	10.0	02/22/24 00:09	
EPA 6010	Potassium	9260	ug/L	1000	02/22/24 00:09	
EPA 6010	Silica	17800	ug/L	450	02/22/24 00:09	N2

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50366019003	**Dup 1**					
EPA 6010	Sodium	22300	ug/L	1000	02/22/24 00:09	
EPA 6010	Boron, Dissolved	8820	ug/L	100	02/23/24 22:03	
EPA 6010	Iron, Dissolved	4070	ug/L	100	02/23/24 22:03	
EPA 6010	Magnesium, Dissolved	52100	ug/L	1000	02/23/24 22:03	
EPA 6010	Molybdenum, Dissolved	160	ug/L	10.0	02/23/24 22:03	
EPA 6010	Potassium, Dissolved	9440	ug/L	1000	02/23/24 22:03	
EPA 6020	Aluminum	34.2	ug/L	10.0	02/20/24 23:51	
EPA 6020	Arsenic	4.1	ug/L	1.0	02/20/24 23:51	
EPA 6020	Barium	48.1	ug/L	1.0	02/20/24 23:51	
EPA 6020	Cobalt	6.1	ug/L	1.0	02/20/24 23:51	
EPA 6020	Manganese	3850	ug/L	50.0	02/20/24 21:52	
EPA 6020	Manganese, Dissolved	3800	ug/L	50.0	02/20/24 23:11	
EPA 903.1	Radium-226	-0.278 ± 0.362 (0.881) C:NA T:87%	pCi/L		03/08/24 14:18	
EPA 904.0	Radium-228	0.947 ± 0.436 (0.713) C:72% T:87%	pCi/L		03/08/24 14:30	
Total Radium Calculation	Total Radium	0.947 ± 0.798 (1.59)	pCi/L		03/12/24 15:20	
SM 2320B	Alkalinity, Total as CaCO3	358	mg/L	10.0	02/21/24 11:49	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	358	mg/L	10.0	02/21/24 11:49	
SM 2540C	Total Dissolved Solids	1880	mg/L	20.0	02/21/24 08:28	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	03/01/24 13:10	H3
HACH 8146	Iron, Ferrous	4.0	mg/L	0.50	02/16/24 15:13	H3,N2
EPA 365.1	Phosphate as P04	0.17	mg/L	0.15	02/29/24 16:53	
SM 5310C	Total Organic Carbon	2.7	mg/L	1.0	02/29/24 06:26	
SM 5310C	Dissolved Organic Carbon	3.6	mg/L	1.0	02/28/24 04:21	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

Sample: AP-9B **Lab ID: 50366019001** Collected: 02/15/24 14:50 Received: 02/16/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**1.6**	mg/L	0.050	0.0090	1		02/24/24 03:48	24959-67-9	
Chloride	**58.8**	mg/L	2.5	0.67	10		02/24/24 04:06	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		02/24/24 03:48	16984-48-8	
Sulfate	**864**	mg/L	25.0	19.0	100		02/24/24 04:24	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**8900**	ug/L	100	6.2	1	02/20/24 21:00	02/22/24 00:06	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	02/20/24 21:00	02/22/24 00:06	7440-43-9	
Calcium	**426000**	ug/L	5000	338	5	02/20/24 21:00	02/22/24 00:16	7440-70-2	
Iron	**3980**	ug/L	100	30.0	1	02/20/24 21:00	02/22/24 00:06	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	02/20/24 21:00	02/22/24 00:06	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	02/20/24 21:00	02/22/24 00:06	7439-93-2	
Magnesium	**51100**	ug/L	1000	33.6	1	02/20/24 21:00	02/22/24 00:06	7439-95-4	
Molybdenum	**162**	ug/L	10.0	0.78	1	02/20/24 21:00	02/22/24 00:06	7439-98-7	
Potassium	**9200**	ug/L	1000	97.8	1	02/20/24 21:00	02/22/24 00:06	7440-09-7	
Silica	**17900**	ug/L	450		1	02/20/24 21:00	02/22/24 00:06	7631-86-9	N2
Sodium	**22500**	ug/L	1000	54.8	1	02/20/24 21:00	02/22/24 00:06	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**8500**	ug/L	100	6.2	1	02/22/24 20:36	02/23/24 21:57	7440-42-8	
Iron, Dissolved	**3900**	ug/L	100	30.0	1	02/22/24 20:36	02/23/24 21:57	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	02/22/24 20:36	02/23/24 21:57	7439-93-2	
Magnesium, Dissolved	**49700**	ug/L	1000	33.6	1	02/22/24 20:36	02/23/24 21:57	7439-95-4	
Molybdenum, Dissolved	**156**	ug/L	10.0	0.78	1	02/22/24 20:36	02/23/24 21:57	7439-98-7	
Potassium, Dissolved	**9050**	ug/L	1000	97.8	1	02/22/24 20:36	02/23/24 21:57	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**40.0**	ug/L	10.0	2.6	1	02/20/24 09:45	02/20/24 23:43	7429-90-5	
Arsenic	**4.2**	ug/L	1.0	0.10	1	02/20/24 09:45	02/20/24 23:43	7440-38-2	
Barium	**47.8**	ug/L	1.0	0.062	1	02/20/24 09:45	02/20/24 23:43	7440-39-3	
Cobalt	**6.1**	ug/L	1.0	0.060	1	02/20/24 09:45	02/20/24 23:43	7440-48-4	
Manganese	**3850**	ug/L	50.0	7.4	50	02/20/24 09:45	02/20/24 21:36	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	02/20/24 09:45	02/20/24 23:43	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	02/20/24 09:45	02/21/24 00:39	7429-90-5	
Manganese, Dissolved	**3800**	ug/L	50.0	7.4	50	02/20/24 09:45	02/20/24 22:52	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

Sample: AP-9B **Lab ID: 50366019001** Collected: 02/15/24 14:50 Received: 02/16/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**351**	mg/L	10.0	10.0	1		02/21/24 11:07		
Alkalinity,Bicarbonate (CaCO3)	**351**	mg/L	10.0	10.0	1		02/21/24 11:07		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		02/21/24 11:07		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1830**	mg/L	20.0	20.0	1		02/21/24 08:28		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		03/01/24 13:09		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		02/21/24 11:39	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**4.0**	mg/L	0.50	0.34	2.5		02/16/24 15:26	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		02/16/24 13:06	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		02/16/24 13:06	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.19**	mg/L	0.15	0.15	1	02/29/24 10:00	02/29/24 16:52		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**2.6**	mg/L	1.0	0.25	1		02/29/24 05:37	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.8**	mg/L	1.0	0.25	1		02/28/24 03:50		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

Sample: AP-9I **Lab ID: 50366019002** Collected: 02/15/24 17:00 Received: 02/16/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**6.5**	mg/L	0.050	0.0090	1		02/24/24 05:17	24959-67-9	
Chloride	**123**	mg/L	2.5	0.67	10		02/24/24 05:35	16887-00-6	
Fluoride	**0.19**	mg/L	0.10	0.017	1		02/24/24 05:17	16984-48-8	
Sulfate	**1470**	mg/L	25.0	19.0	100		02/24/24 05:53	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**24100**	ug/L	100	6.2	1	02/20/24 21:00	02/22/24 00:08	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	02/20/24 21:00	02/22/24 00:08	7440-43-9	
Calcium	**630000**	ug/L	5000	338	5	02/20/24 21:00	02/22/24 00:18	7440-70-2	
Iron	**4460**	ug/L	100	30.0	1	02/20/24 21:00	02/22/24 00:08	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	02/20/24 21:00	02/22/24 00:08	7439-92-1	
Lithium	**38.8**	ug/L	20.0	6.8	1	02/20/24 21:00	02/22/24 00:08	7439-93-2	
Magnesium	**10800**	ug/L	1000	33.6	1	02/20/24 21:00	02/22/24 00:08	7439-95-4	
Molybdenum	**1740**	ug/L	10.0	0.78	1	02/20/24 21:00	02/22/24 00:08	7439-98-7	
Potassium	**31600**	ug/L	1000	97.8	1	02/20/24 21:00	02/22/24 00:08	7440-09-7	
Silica	**10100**	ug/L	450		1	02/20/24 21:00	02/22/24 00:08	7631-86-9	N2
Sodium	**38400**	ug/L	1000	54.8	1	02/20/24 21:00	02/22/24 00:08	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**23500**	ug/L	100	6.2	1	02/22/24 20:36	02/23/24 22:02	7440-42-8	
Iron, Dissolved	**4140**	ug/L	100	30.0	1	02/22/24 20:36	02/23/24 22:02	7439-89-6	
Lithium, Dissolved	**34.7**	ug/L	20.0	6.8	1	02/22/24 20:36	02/23/24 22:02	7439-93-2	
Magnesium, Dissolved	**10400**	ug/L	1000	33.6	1	02/22/24 20:36	02/23/24 22:02	7439-95-4	
Molybdenum, Dissolved	**1700**	ug/L	10.0	0.78	1	02/22/24 20:36	02/23/24 22:02	7439-98-7	
Potassium, Dissolved	**31700**	ug/L	1000	97.8	1	02/22/24 20:36	02/23/24 22:02	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**78.6**	ug/L	10.0	2.6	1	02/20/24 09:45	02/20/24 23:47	7429-90-5	
Arsenic	**6.8**	ug/L	1.0	0.10	1	02/20/24 09:45	02/20/24 23:47	7440-38-2	
Barium	**30.1**	ug/L	1.0	0.062	1	02/20/24 09:45	02/20/24 23:47	7440-39-3	
Cobalt	ND	ug/L	1.0	0.060	1	02/20/24 09:45	02/20/24 23:47	7440-48-4	
Manganese	**1910**	ug/L	20.0	3.0	20	02/20/24 09:45	02/20/24 21:40	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	02/20/24 09:45	02/20/24 23:47	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	02/20/24 09:45	02/21/24 00:43	7429-90-5	
Manganese, Dissolved	**1910**	ug/L	20.0	3.0	20	02/20/24 09:45	02/20/24 22:56	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

Sample: AP-9I **Lab ID: 50366019002** Collected: 02/15/24 17:00 Received: 02/16/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**51.8**	mg/L	10.0	10.0	1		02/21/24 11:49		
Alkalinity,Bicarbonate (CaCO3)	**51.8**	mg/L	10.0	10.0	1		02/21/24 11:49		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		02/21/24 11:49		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2570**	mg/L	20.0	20.0	1		02/21/24 08:28		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		03/01/24 13:10		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		02/21/24 11:39	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**4.0**	mg/L	0.50	0.34	2.5		02/16/24 15:26	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		02/16/24 13:08	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		02/16/24 13:08	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.34**	mg/L	0.15	0.15	1	02/29/24 10:00	02/29/24 16:52		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**2.0**	mg/L	1.0	0.25	1		02/29/24 05:48	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.7**	mg/L	1.0	0.25	1		02/28/24 04:05		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

Sample: Dup 1 **Lab ID: 50366019003** Collected: 02/15/24 08:00 Received: 02/16/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Bromide	**1.6**	mg/L	0.050	0.0090	1		02/24/24 06:11	24959-67-9	
Chloride	**58.6**	mg/L	2.5	0.67	10		02/24/24 06:29	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		02/24/24 06:11	16984-48-8	
Sulfate	**874**	mg/L	25.0	19.0	100		02/24/24 06:47	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**8880**	ug/L	100	6.2	1	02/20/24 21:00	02/22/24 00:09	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	02/20/24 21:00	02/22/24 00:09	7440-43-9	
Calcium	**426000**	ug/L	5000	338	5	02/20/24 21:00	02/22/24 00:19	7440-70-2	
Iron	**3980**	ug/L	100	30.0	1	02/20/24 21:00	02/22/24 00:09	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	02/20/24 21:00	02/22/24 00:09	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	02/20/24 21:00	02/22/24 00:09	7439-93-2	
Magnesium	**50800**	ug/L	1000	33.6	1	02/20/24 21:00	02/22/24 00:09	7439-95-4	
Molybdenum	**161**	ug/L	10.0	0.78	1	02/20/24 21:00	02/22/24 00:09	7439-98-7	
Potassium	**9260**	ug/L	1000	97.8	1	02/20/24 21:00	02/22/24 00:09	7440-09-7	
Silica	**17800**	ug/L	450		1	02/20/24 21:00	02/22/24 00:09	7631-86-9	N2
Sodium	**22300**	ug/L	1000	54.8	1	02/20/24 21:00	02/22/24 00:09	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**8820**	ug/L	100	6.2	1	02/22/24 20:36	02/23/24 22:03	7440-42-8	
Iron, Dissolved	**4070**	ug/L	100	30.0	1	02/22/24 20:36	02/23/24 22:03	7439-89-6	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	02/22/24 20:36	02/23/24 22:03	7439-93-2	
Magnesium, Dissolved	**52100**	ug/L	1000	33.6	1	02/22/24 20:36	02/23/24 22:03	7439-95-4	
Molybdenum, Dissolved	**160**	ug/L	10.0	0.78	1	02/22/24 20:36	02/23/24 22:03	7439-98-7	
Potassium, Dissolved	**9440**	ug/L	1000	97.8	1	02/22/24 20:36	02/23/24 22:03	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum	**34.2**	ug/L	10.0	2.6	1	02/20/24 09:45	02/20/24 23:51	7429-90-5	
Arsenic	**4.1**	ug/L	1.0	0.10	1	02/20/24 09:45	02/20/24 23:51	7440-38-2	
Barium	**48.1**	ug/L	1.0	0.062	1	02/20/24 09:45	02/20/24 23:51	7440-39-3	
Cobalt	**6.1**	ug/L	1.0	0.060	1	02/20/24 09:45	02/20/24 23:51	7440-48-4	
Manganese	**3850**	ug/L	50.0	7.4	50	02/20/24 09:45	02/20/24 21:52	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	02/20/24 09:45	02/20/24 23:51	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	02/20/24 09:45	02/21/24 00:48	7429-90-5	
Manganese, Dissolved	**3800**	ug/L	50.0	7.4	50	02/20/24 09:45	02/20/24 23:11	7439-96-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

Sample: Dup 1 **Lab ID: 50366019003** Collected: 02/15/24 08:00 Received: 02/16/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**358**	mg/L	10.0	10.0	1		02/21/24 11:49		
Alkalinity,Bicarbonate (CaCO3)	**358**	mg/L	10.0	10.0	1		02/21/24 11:49		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		02/21/24 11:49		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1880**	mg/L	20.0	20.0	1		02/21/24 08:28		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		03/01/24 13:10		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		02/21/24 11:39	18496-25-8	
Iron, Ferrous	Analytical Method: HACH 8146 Pace Analytical Services - Indianapolis								
Iron, Ferrous	**4.0**	mg/L	0.50	0.34	2.5		02/16/24 15:13	15438-31-0	H3,N2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		02/16/24 12:49	14797-55-8	
Nitrogen, Nitrite	ND	mg/L	0.10	0.0040	1		02/16/24 12:49	14797-65-0	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.17**	mg/L	0.15	0.15	1	02/29/24 10:00	02/29/24 16:53		
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Total Organic Carbon	**2.7**	mg/L	1.0	0.25	1		02/29/24 06:26	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.6**	mg/L	1.0	0.25	1		02/28/24 04:21		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

QC Batch: 776399
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50366019001, 50366019002, 50366019003

METHOD BLANK: 3554089 Matrix: Water
Associated Lab Samples: 50366019001, 50366019002, 50366019003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	0.050	0.0090	02/23/24 15:14	
Chloride	mg/L	ND	0.25	0.067	02/23/24 15:14	
Fluoride	mg/L	ND	0.10	0.017	02/23/24 15:14	
Sulfate	mg/L	ND	0.25	0.19	02/23/24 15:14	

LABORATORY CONTROL SAMPLE: 3554090

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.97	97	80-120	
Chloride	mg/L	2.5	2.4	97	80-120	
Fluoride	mg/L	1	0.96	96	80-120	
Sulfate	mg/L	5	4.8	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3554091 3554092

Parameter	Units	50366047012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromide	mg/L	1080 ug/L	10	10	10.8	10.8	97	97	80-120	0	15	
Chloride	mg/L	253000 ug/L	250	250	473	474	88	89	80-120	0	15	
Fluoride	mg/L	1370 ug/L	10	10	11.4	11.5	101	102	80-120	1	15	
Sulfate	mg/L	1980000 ug/L	500	500	2310	2310	66	65	80-120	0	15	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

QC Batch: 776094
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50366019001, 50366019002, 50366019003

METHOD BLANK: 3553028 Matrix: Water
Associated Lab Samples: 50366019001, 50366019002, 50366019003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	02/21/24 23:24	
Cadmium	ug/L	ND	2.0	0.60	02/21/24 23:24	
Calcium	ug/L	ND	1000	67.7	02/21/24 23:24	
Iron	ug/L	ND	100	30.0	02/21/24 23:24	
Lead	ug/L	ND	10.0	2.5	02/21/24 23:24	
Lithium	ug/L	ND	20.0	6.8	02/21/24 23:24	
Magnesium	ug/L	ND	1000	33.6	02/21/24 23:24	
Molybdenum	ug/L	ND	10.0	0.78	02/21/24 23:24	
Potassium	ug/L	ND	1000	97.8	02/21/24 23:24	
Silica	ug/L	ND	450		02/21/24 23:24	N2
Sodium	ug/L	ND	1000	54.8	02/21/24 23:24	

LABORATORY CONTROL SAMPLE: 3553029

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	959	96	80-120	
Cadmium	ug/L	1000	959	96	80-120	
Calcium	ug/L	10000	9810	98	80-120	
Iron	ug/L	10000	9560	96	80-120	
Lead	ug/L	1000	923	92	80-120	
Lithium	ug/L	1000	1000	100	80-120	
Magnesium	ug/L	10000	9590	96	80-120	
Molybdenum	ug/L	1000	995	100	80-120	
Potassium	ug/L	10000	9590	96	80-120	
Silica	ug/L	10700	10600	99	80-120	N2
Sodium	ug/L	10000	9370	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3553030 3553031

Parameter	Units	50365995002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	387	1000	1000	1420	1390	104	100	75-125	3	20	
Cadmium	ug/L	ND	1000	1000	1010	972	101	97	75-125	4	20	
Calcium	ug/L	98100	10000	10000	109000	107000	106	85	75-125	2	20	
Iron	ug/L	3070	10000	10000	12900	12500	98	95	75-125	3	20	
Lead	ug/L	ND	1000	1000	925	895	92	90	75-125	3	20	
Lithium	ug/L	ND	1000	1000	1050	1020	103	100	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3553030 3553031

Parameter	Units	50365995002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Magnesium	ug/L	31300	10000	10000	41200	40300	99	90	75-125	2	20	
Molybdenum	ug/L	ND	1000	1000	1050	1020	105	101	75-125	3	20	
Potassium	ug/L	9330	10000	10000	19300	18900	100	96	75-125	2	20	
Silica	ug/L	13500	10700	10700	25000	24300	107	101	75-125	3	20	N2
Sodium	ug/L	92900	10000	10000	103000	101000	102	80	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

QC Batch: 776785
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50366019001, 50366019002, 50366019003

METHOD BLANK: 3555705 Matrix: Water
Associated Lab Samples: 50366019001, 50366019002, 50366019003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	02/23/24 21:44	
Iron, Dissolved	ug/L	ND	100	30.0	02/23/24 21:44	
Lithium, Dissolved	ug/L	ND	20.0	6.8	02/23/24 21:44	
Magnesium, Dissolved	ug/L	ND	1000	33.6	02/23/24 21:44	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	02/23/24 21:44	
Potassium, Dissolved	ug/L	ND	1000	97.8	02/23/24 21:44	

LABORATORY CONTROL SAMPLE: 3555706

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	929	93	80-120	
Iron, Dissolved	ug/L	10000	9450	95	80-120	
Lithium, Dissolved	ug/L	1000	989	99	80-120	
Magnesium, Dissolved	ug/L	10000	9400	94	80-120	
Molybdenum, Dissolved	ug/L	1000	993	99	80-120	
Potassium, Dissolved	ug/L	10000	9470	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3555707 3555708

Parameter	Units	50365971001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	<100	1000	1000	963	942	95	92	75-125	2	20	
Iron, Dissolved	ug/L	<100	10000	10000	9440	9210	94	92	75-125	2	20	
Lithium, Dissolved	ug/L	<20.0	1000	1000	981	958	98	96	75-125	2	20	
Magnesium, Dissolved	ug/L	13000	10000	10000	22600	22200	96	92	75-125	2	20	
Molybdenum, Dissolved	ug/L	<10.0	1000	1000	996	971	100	97	75-125	3	20	
Potassium, Dissolved	ug/L	0.98 mg/L	10000	10000	10500	10300	96	93	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

QC Batch: 776021
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50366019001, 50366019002, 50366019003

METHOD BLANK: 3552718 Matrix: Water
Associated Lab Samples: 50366019001, 50366019002, 50366019003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	2.6	02/20/24 15:55	
Arsenic	ug/L	ND	1.0	0.10	02/20/24 15:55	
Barium	ug/L	ND	1.0	0.062	02/20/24 15:55	
Cobalt	ug/L	ND	1.0	0.060	02/20/24 15:55	
Manganese	ug/L	ND	1.0	0.15	02/20/24 15:55	
Selenium	ug/L	ND	1.0	0.36	02/20/24 15:55	

LABORATORY CONTROL SAMPLE: 3552719

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	400	395	99	80-120	
Arsenic	ug/L	40	40.0	100	80-120	
Barium	ug/L	40	39.2	98	80-120	
Cobalt	ug/L	40	40.9	102	80-120	
Manganese	ug/L	40	41.8	105	80-120	
Selenium	ug/L	40	39.0	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3552720 3552721

Parameter	Units	50365995002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	83.1	400	400	481	481	99	100	75-125	0	20	
Arsenic	ug/L	2.3	40	40	42.0	43.0	99	102	75-125	2	20	
Barium	ug/L	441	40	40	480	485	97	112	75-125	1	20	E
Cobalt	ug/L	ND	40	40	39.9	39.8	99	99	75-125	0	20	
Manganese	ug/L	127	40	40	168	169	103	105	75-125	1	20	
Selenium	ug/L	ND	40	40	41.0	41.0	102	102	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

QC Batch: 776020
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50366019001, 50366019002, 50366019003

METHOD BLANK: 3552714 Matrix: Water
Associated Lab Samples: 50366019001, 50366019002, 50366019003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.6	02/20/24 20:04	
Manganese, Dissolved	ug/L	ND	1.0	0.15	02/20/24 20:04	

LABORATORY CONTROL SAMPLE: 3552715

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	389	97	80-120	
Manganese, Dissolved	ug/L	40	41.5	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3552716 3552717

Parameter	Units	50365772001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	396	412	98	103	75-125	4	20	
Manganese, Dissolved	ug/L	ND	40	40	40.4	40.6	100	101	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

QC Batch: 776545
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50366019001

METHOD BLANK: 3554600 Matrix: Water
Associated Lab Samples: 50366019001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	02/21/24 11:07	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	02/21/24 11:07	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	02/21/24 11:07	

LABORATORY CONTROL SAMPLE: 3554601

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.3	101	90-110	

SAMPLE DUPLICATE: 3554602

Parameter	Units	50365981003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	448	450	0	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	448	450	0	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3554603

Parameter	Units	50365995002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	295	292	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	295	292	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

QC Batch: 776546
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50366019002, 50366019003

METHOD BLANK: 3554604 Matrix: Water
Associated Lab Samples: 50366019002, 50366019003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	02/21/24 11:49	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	02/21/24 11:49	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	02/21/24 11:49	

LABORATORY CONTROL SAMPLE: 3554605

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.2	102	90-110	

SAMPLE DUPLICATE: 3554606

Parameter	Units	50366041004 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	617	617	0	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	617	617	0	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3554607

Parameter	Units	50366041007 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	365	374	3	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	365	374	3	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

QC Batch: 776534
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50366019001, 50366019002, 50366019003

METHOD BLANK: 3554582 Matrix: Water
Associated Lab Samples: 50366019001, 50366019002, 50366019003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	02/21/24 08:25	

LABORATORY CONTROL SAMPLE: 3554583

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	285	95	80-120	

SAMPLE DUPLICATE: 3554584

Parameter	Units	50365995002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	640	648	1	10	

SAMPLE DUPLICATE: 3554585

Parameter	Units	50366022001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	523	526	1	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

QC Batch: 778285
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50366019001, 50366019002, 50366019003

SAMPLE DUPLICATE: 3561978

Parameter	Units	50365995002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.2	7.3	1	2	H3

SAMPLE DUPLICATE: 3561979

Parameter	Units	50366179004 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.1	0	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

QC Batch: 776565
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50366019001, 50366019002, 50366019003

METHOD BLANK: 3554691 Matrix: Water
Associated Lab Samples: 50366019001, 50366019002, 50366019003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	02/21/24 11:39	

LABORATORY CONTROL SAMPLE: 3554692

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3554693 3554694

Parameter	Units	50366105001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.51	0.50	101	98	90-110	3	20	

MATRIX SPIKE SAMPLE: 3554695

Parameter	Units	50366185019 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.34	68	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

QC Batch: 775953
QC Batch Method: HACH 8146
Analysis Method: HACH 8146
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50366019001, 50366019002, 50366019003

METHOD BLANK: 3552264 Matrix: Water
Associated Lab Samples: 50366019001, 50366019002, 50366019003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.20	0.14	02/16/24 14:43	H3,N2

LABORATORY CONTROL SAMPLE: 3552265

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1	1.0	100	90-110	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3552266 3552267

Parameter	Units	50365772001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.1	98	100	90-110	2	20	H3,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3552268 3552269

Parameter	Units	50365995002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Ferrous	mg/L	ND	1	1	1.1	1.1	101	100	90-110	1	20	H3,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

QC Batch: 775926
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50366019001, 50366019002, 50366019003

METHOD BLANK: 3552090 Matrix: Water
Associated Lab Samples: 50366019001, 50366019002, 50366019003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	02/16/24 10:36	
Nitrogen, Nitrite	mg/L	ND	0.10	0.0040	02/16/24 10:36	

LABORATORY CONTROL SAMPLE: 3552091

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.1	108	90-110	
Nitrogen, Nitrite	mg/L	1	1.1	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3552092 3552093

Parameter	Units	50365995002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.1	1.1	107	106	90-110	1	20	
Nitrogen, Nitrite	mg/L	ND	1	1	1.1	1.1	107	107	90-110	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

QC Batch: 777956
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50366019001, 50366019002, 50366019003

METHOD BLANK: 3560574 Matrix: Water
Associated Lab Samples: 50366019001, 50366019002, 50366019003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.15	02/29/24 16:47	

LABORATORY CONTROL SAMPLE: 3560575

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3560576 3560577

Parameter	Units	50365995002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.6	1.7				5		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

QC Batch: 777834
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50366019001, 50366019002, 50366019003

METHOD BLANK: 3560051 Matrix: Water
Associated Lab Samples: 50366019001, 50366019002, 50366019003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.25	02/29/24 00:15	

LABORATORY CONTROL SAMPLE: 3560052

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3560053 3560054

Parameter	Units	50366047012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	<2000 ug/L	10	10	10.5	10.4	92	92	80-120	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3560055 3560056

Parameter	Units	50365995002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	3.2	10	10	12.4	12.5	92	93	80-120	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

QC Batch: 777633
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50366019001, 50366019002, 50366019003

METHOD BLANK: 3559229 Matrix: Water
Associated Lab Samples: 50366019001, 50366019002, 50366019003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	02/28/24 02:03	

LABORATORY CONTROL SAMPLE: 3559230

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.7	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3559231 3559232

Parameter	Units	50365995002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	3.6	10	10	13.0	13.2	94	96	80-120	2	20	

MATRIX SPIKE SAMPLE: 3559233

Parameter	Units	50366179004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	9.1	10	19.0	99	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

Sample: AP-9B **Lab ID: 50366019001** Collected: 02/15/24 14:50 Received: 02/16/24 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.0550 ± 0.470 (0.957) C:NA T:88%**	pCi/L	03/08/24 14:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.934 ± 0.472 (0.833) C:79% T:84%**	pCi/L	03/08/24 11:30	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.934 ± 0.942 (1.79)**	pCi/L	03/12/24 15:20	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

Sample: AP-9I **Lab ID: 50366019002** Collected: 02/15/24 17:00 Received: 02/16/24 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.242 ± 0.369 (0.636) C:NA T:96%**	pCi/L	03/08/24 14:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.714 ± 0.401 (0.723) C:79% T:84%**	pCi/L	03/08/24 11:30	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.956 ± 0.770 (1.36)**	pCi/L	03/12/24 15:20	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

Sample: Dup 1 **Lab ID: 50366019003** Collected: 02/15/24 08:00 Received: 02/16/24 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.278 ± 0.362 (0.881) C:NA T:87%**	pCi/L	03/08/24 14:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.947 ± 0.436 (0.713) C:72% T:87%**	pCi/L	03/08/24 14:30	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.947 ± 0.798 (1.59)**	pCi/L	03/12/24 15:20	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

QC Batch: 650430
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50366019001, 50366019002, 50366019003

METHOD BLANK: 3169491 Matrix: Water
Associated Lab Samples: 50366019001, 50366019002, 50366019003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.166 ± 0.231 (0.386) C:NA T:98%	pCi/L	03/08/24 14:18	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

QC Batch: 650431
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50366019001, 50366019002, 50366019003

METHOD BLANK: 3169492
Matrix: Water
Associated Lab Samples: 50366019001, 50366019002, 50366019003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.307 ± 0.284 (0.573) C:83% T:91%	pCi/L	03/08/24 11:29	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50366019001	**AP-9B**	EPA 9056	776399		
50366019002	**AP-9I**	EPA 9056	776399		
50366019003	**Dup 1**	EPA 9056	776399		
50366019001	**AP-9B**	EPA 3010	776094	EPA 6010	776770
50366019002	**AP-9I**	EPA 3010	776094	EPA 6010	776770
50366019003	**Dup 1**	EPA 3010	776094	EPA 6010	776770
50366019001	**AP-9B**	EPA 3010	776785	EPA 6010	777212
50366019002	**AP-9I**	EPA 3010	776785	EPA 6010	777212
50366019003	**Dup 1**	EPA 3010	776785	EPA 6010	777212
50366019001	**AP-9B**	EPA 200.2	776021	EPA 6020	776449
50366019002	**AP-9I**	EPA 200.2	776021	EPA 6020	776449
50366019003	**Dup 1**	EPA 200.2	776021	EPA 6020	776449
50366019001	**AP-9B**	EPA 200.2	776020	EPA 6020	776469
50366019002	**AP-9I**	EPA 200.2	776020	EPA 6020	776469
50366019003	**Dup 1**	EPA 200.2	776020	EPA 6020	776469
50366019001	**AP-9B**	EPA 903.1	650430		
50366019002	**AP-9I**	EPA 903.1	650430		
50366019003	**Dup 1**	EPA 903.1	650430		
50366019001	**AP-9B**	EPA 904.0	650431		
50366019002	**AP-9I**	EPA 904.0	650431		
50366019003	**Dup 1**	EPA 904.0	650431		
50366019001	**AP-9B**	Total Radium Calculation	654585		
50366019002	**AP-9I**	Total Radium Calculation	654585		
50366019003	**Dup 1**	Total Radium Calculation	654585		
50366019001	**AP-9B**	SM 2320B	776545		
50366019002	**AP-9I**	SM 2320B	776546		
50366019003	**Dup 1**	SM 2320B	776546		
50366019001	**AP-9B**	SM 2540C	776534		
50366019002	**AP-9I**	SM 2540C	776534		
50366019003	**Dup 1**	SM 2540C	776534		
50366019001	**AP-9B**	SM 4500-H+B	778285		
50366019002	**AP-9I**	SM 4500-H+B	778285		
50366019003	**Dup 1**	SM 4500-H+B	778285		
50366019001	**AP-9B**	SM 4500-S2-D	776565		
50366019002	**AP-9I**	SM 4500-S2-D	776565		
50366019003	**Dup 1**	SM 4500-S2-D	776565		
50366019001	**AP-9B**	HACH 8146	775953		
50366019002	**AP-9I**	HACH 8146	775953		
50366019003	**Dup 1**	HACH 8146	775953		
50366019001	**AP-9B**	EPA 353.2	775926		
50366019002	**AP-9I**	EPA 353.2	775926		
50366019003	**Dup 1**	EPA 353.2	775926		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4R3 Nov 2023
Pace Project No.: 50366019

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50366019001	**AP-9B**	EPA 365.1	777956	EPA 365.1	778143
50366019002	**AP-9I**	EPA 365.1	777956	EPA 365.1	778143
50366019003	**Dup 1**	EPA 365.1	777956	EPA 365.1	778143
50366019001	**AP-9B**	SM 5310C	777834		
50366019002	**AP-9I**	SM 5310C	777834		
50366019003	**Dup 1**	SM 5310C	777834		
50366019001	**AP-9B**	SM 5310C	777633		
50366019002	**AP-9I**	SM 5310C	777633		
50366019003	**Dup 1**	SM 5310C	777633		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO# : 50366019

50366019

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A	Section B	Section C
Required Client Information:	Required Project Information:	Invoice Information:
Company: Atlas Indianapolis	Report To: Mark Breting	Attention: Accounts Payable - Paula Sedam
Address: 7988 Centerpoint Drive Suite 100 Indianapolis, IN 46256	Copy To:	Company Name: Atlas Indianapolis
Email: mark.breting@oneatlas.com	Purchase Order #:	Address:
Phone: (317)579-4082 Fax:	Project Name: Petersburg P443 Nov 2023	Pace Quote:
Requested Due Date:	Project #:	Pace Project Manager: Will Statz
		Pace Profile #: 10498/53

Regulatory Agency

State / Location: IN

SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO2, NO3 Wet	(Br, Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity*, Ferrous Iron, pH	TOC by 5310C	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum	Residual Chlorine (Y/N)	
																	Requested Analysis Filtered (Y/N)				Y			Y				
AP-9B	WT	G			2-15	1450		11	✓	✓	✓		✓					✓								✓		001
AP-9I	WT	G			2-15	1700		11	|	|	|		|					✓								✓		002
Dup 1	WT	G			2-15			11	|	|	|		|					✓								✓		003

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
: 6010 (B, Cd, Fe, Pb, Mo, Ca, Mg, Na, K, Li, sila) (11)	Hayley Torres/ATLAS	2-15	17:30	Fedex	2-15	1730				
J, Mn, Co, As, Se, Ba) (6)	Fedex	2/16/24	0930		2/16/24	0930	5+0 Ice	Y	Y	Y
olved FF 6010 (B, Fe, Mo, Mg, K, Li) (6) FF 6020 (Al, Mn) (2)										
226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE				
PRINT Name of SAMPLER: Hayley Torres				
SIGNATURE of SAMPLER: Hayley Torres	DATE Signed: 2-15-24	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: LF 8/16/24 1003

1. **Courier:** ☒ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No
   (If yes)Seals Intact: ☒ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H
4. **Cooler Temperature(s):** 0.3/0.4 | 0.8/0.9 | | | **(Initial/Corrected)** RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)
5. **Packing Material:** ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☒ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	X		
Short Hold Time Analysis (48 hours or less)? Analysis: NO3/NO2	X					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 1150			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
Containers Intact?:	X		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent X
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1												1	1			2	1	2	1	1	1		1					W	1	1		
2																																
3												4	4			4	4	4	4	4	4		4					4	4	4		4
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

May 2024

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

July 24, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 02, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50372108001	**MW-41A**	Water	05/02/24 14:15	05/02/24 15:10
50372108002	**MW-41I**	Water	05/02/24 12:50	05/02/24 15:10
50372108003	**MW-41B**	Water	05/02/24 10:45	05/02/24 15:10

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50372108001	**MW-41A**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ABH	11	PASI-I
		EPA 6010	ABH	5	PASI-I
		EPA 6020	CAW	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	JTR	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50372108002	**MW-41I**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ABH	11	PASI-I
		EPA 6010	ABH	5	PASI-I
		EPA 6020	CAW	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	JTR	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50372108003	**MW-41B**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ABH	11	PASI-I
		EPA 6010	ABH	5	PASI-I
		EPA 6020	CAW	8	PASI-I
		EPA 6020	CAW	1	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	JTR	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372108001	**MW-41A**					
EPA 9056	Chloride	61.4	mg/L	2.5	05/07/24 22:25	
EPA 9056	Fluoride	0.11	mg/L	0.10	05/07/24 22:08	
EPA 9056	Sulfate	749	mg/L	25.0	05/07/24 22:41	
EPA 6010	Boron	12400	ug/L	100	05/08/24 19:02	
EPA 6010	Calcium	329000	ug/L	2000	05/08/24 21:06	
EPA 6010	Iron	7270	ug/L	100	05/08/24 19:02	
EPA 6010	Magnesium	30600	ug/L	1000	05/08/24 19:02	
EPA 6010	Molybdenum	458	ug/L	10.0	05/08/24 19:02	
EPA 6010	Potassium	5460	ug/L	1000	05/08/24 19:02	
EPA 6010	Sodium	26500	ug/L	1000	05/08/24 19:02	
EPA 6010	Boron, Dissolved	12500	ug/L	100	05/08/24 20:31	
EPA 6010	Magnesium, Dissolved	30900	ug/L	1000	05/08/24 20:31	
EPA 6010	Molybdenum, Dissolved	466	ug/L	10.0	05/08/24 20:31	
EPA 6010	Potassium, Dissolved	5410	ug/L	1000	05/08/24 20:31	
EPA 6020	Barium	32.9	ug/L	1.0	05/07/24 03:14	
EPA 6020	Manganese	1150	ug/L	10.0	05/07/24 22:13	
EPA 903.1	Radium-226	0.323 ± 0.423 (0.705) C:NA T:88%	pCi/L		05/27/24 15:06	
EPA 904.0	Radium-228	0.751 ± 0.400 (0.719) C:81% T:86%	pCi/L		05/22/24 12:31	
Total Radium Calculation	Total Radium	1.07 ± 0.823 (1.42)	pCi/L		05/28/24 14:44	
SM 2320B	Alkalinity, Total as CaCO3	207	mg/L	10.0	05/04/24 14:47	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	207	mg/L	10.0	05/04/24 14:47	
SM 2540C	Total Dissolved Solids	1290	mg/L	20.0	05/07/24 11:06	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	05/08/24 12:51	H3
EPA 365.1	Phosphate as P04	0.42	mg/L	0.15	05/15/24 13:55	
SM 5310C	Dissolved Organic Carbon	1.0	mg/L	1.0	05/08/24 17:55	
50372108002	**MW-41I**					
EPA 9056	Chloride	13.6	mg/L	0.25	05/08/24 01:13	
EPA 9056	Sulfate	74.8	mg/L	2.5	05/08/24 01:30	
EPA 6010	Boron	904	ug/L	100	05/08/24 19:04	
EPA 6010	Calcium	103000	ug/L	1000	05/08/24 19:04	
EPA 6010	Iron	4040	ug/L	100	05/08/24 19:04	
EPA 6010	Magnesium	24800	ug/L	1000	05/08/24 19:04	
EPA 6010	Sodium	8520	ug/L	1000	05/08/24 19:04	
EPA 6010	Boron, Dissolved	886	ug/L	100	05/08/24 20:37	
EPA 6010	Magnesium, Dissolved	24800	ug/L	1000	05/08/24 20:37	
EPA 6020	Barium	71.3	ug/L	1.0	05/07/24 03:18	
EPA 6020	Manganese	1570	ug/L	10.0	05/07/24 22:35	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372108002	**MW-41I**					
EPA 903.1	Radium-226	0.0475 ± 0.309 (0.622) C:NA T:90%	pCi/L		05/27/24 15:06	
EPA 904.0	Radium-228	0.618 ± 0.370 (0.690) C:83% T:86%	pCi/L		05/22/24 12:31	
Total Radium Calculation	Total Radium	0.666 ± 0.679 (1.31)	pCi/L		05/28/24 14:44	
SM 2320B	Alkalinity, Total as CaCO3	298	mg/L	10.0	05/04/24 14:47	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	298	mg/L	10.0	05/04/24 14:47	
SM 2540C	Total Dissolved Solids	374	mg/L	10.0	05/07/24 11:10	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	05/08/24 12:52	H3
EPA 365.1	Phosphate as P04	0.61	mg/L	0.15	05/15/24 13:56	
SM 5310C	Dissolved Organic Carbon	1.1	mg/L	1.0	05/08/24 18:14	
50372108003	**MW-41B**					
EPA 9056	Chloride	9.9	mg/L	0.25	05/07/24 23:32	
EPA 9056	Sulfate	52.5	mg/L	2.5	05/07/24 23:49	
EPA 6010	Boron	517	ug/L	100	05/08/24 19:10	
EPA 6010	Calcium	106000	ug/L	1000	05/08/24 19:10	
EPA 6010	Magnesium	25500	ug/L	1000	05/08/24 19:10	
EPA 6010	Sodium	6680	ug/L	1000	05/08/24 19:10	
EPA 6010	Boron, Dissolved	520	ug/L	100	05/08/24 20:38	
EPA 6010	Magnesium, Dissolved	25800	ug/L	1000	05/08/24 20:38	
EPA 6020	Barium	38.8	ug/L	1.0	05/07/24 03:21	
EPA 6020	Manganese	798	ug/L	5.0	05/07/24 22:39	
EPA 903.1	Radium-226	0.000 ± 0.493 (0.973) C:NA T:91%	pCi/L		05/27/24 15:06	
EPA 904.0	Radium-228	0.426 ± 0.347 (0.692) C:83% T:83%	pCi/L		05/22/24 12:31	
Total Radium Calculation	Total Radium	0.426 ± 0.840 (1.67)	pCi/L		05/28/24 14:44	
SM 2320B	Alkalinity, Total as CaCO3	331	mg/L	10.0	05/04/24 14:47	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	331	mg/L	10.0	05/04/24 14:47	
SM 2540C	Total Dissolved Solids	373	mg/L	10.0	05/07/24 11:11	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	05/08/24 12:52	H3
EPA 353.2	Nitrogen, Nitrate	0.75	mg/L	0.10	05/04/24 04:32	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

Sample: MW-41A **Lab ID: 50372108001** Collected: 05/02/24 14:15 Received: 05/02/24 15:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**61.4**	mg/L	2.5	0.67	10		05/07/24 22:25	16887-00-6	
Fluoride	**0.11**	mg/L	0.10	0.017	1		05/07/24 22:08	16984-48-8	
Sulfate	**749**	mg/L	25.0	19.0	100		05/07/24 22:41	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**12400**	ug/L	100	11.4	1	05/06/24 08:17	05/08/24 19:02	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	05/06/24 08:17	05/08/24 19:02	7440-43-9	
Calcium	**329000**	ug/L	2000	113	2	05/06/24 08:17	05/08/24 21:06	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	05/06/24 08:17	05/08/24 19:02	7440-47-3	
Iron	**7270**	ug/L	100	18.1	1	05/06/24 08:17	05/08/24 19:02	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	05/06/24 08:17	05/08/24 19:02	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	05/06/24 08:17	05/08/24 19:02	7439-93-2	
Magnesium	**30600**	ug/L	1000	32.8	1	05/06/24 08:17	05/08/24 19:02	7439-95-4	
Molybdenum	**458**	ug/L	10.0	1.1	1	05/06/24 08:17	05/08/24 19:02	7439-98-7	
Potassium	**5460**	ug/L	1000	120	1	05/06/24 08:17	05/08/24 19:02	7440-09-7	
Sodium	**26500**	ug/L	1000	48.2	1	05/06/24 08:17	05/08/24 19:02	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**12500**	ug/L	100	11.4	1	05/08/24 07:58	05/08/24 20:31	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	05/08/24 07:58	05/08/24 20:31	7439-93-2	
Magnesium, Dissolved	**30900**	ug/L	1000	32.8	1	05/08/24 07:58	05/08/24 20:31	7439-95-4	
Molybdenum, Dissolved	**466**	ug/L	10.0	1.1	1	05/08/24 07:58	05/08/24 20:31	7439-98-7	
Potassium, Dissolved	**5410**	ug/L	1000	120	1	05/08/24 07:58	05/08/24 20:31	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.49	1	05/04/24 15:55	05/07/24 03:14	7440-36-0	
Arsenic	ND	ug/L	1.0	0.075	1	05/04/24 15:55	05/07/24 03:14	7440-38-2	
Barium	**32.9**	ug/L	1.0	0.077	1	05/04/24 15:55	05/07/24 03:14	7440-39-3	
Beryllium	ND	ug/L	0.20	0.035	1	05/04/24 15:55	05/07/24 22:17	7440-41-7	
Cobalt	ND	ug/L	1.0	0.046	1	05/04/24 15:55	05/07/24 03:14	7440-48-4	
Manganese	**1150**	ug/L	10.0	1.7	10	05/04/24 15:55	05/07/24 22:13	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	05/04/24 15:55	05/07/24 03:14	7782-49-2	
Thallium	ND	ug/L	1.0	0.040	1	05/04/24 15:55	05/07/24 03:14	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/04/24 15:55	05/06/24 23:32	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/10/24 10:24	05/12/24 15:15	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

Sample: MW-41A **Lab ID: 50372108001** Collected: 05/02/24 14:15 Received: 05/02/24 15:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**207**	mg/L	10.0	10.0	1		05/04/24 14:47		
Alkalinity,Bicarbonate (CaCO3)	**207**	mg/L	10.0	10.0	1		05/04/24 14:47		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/04/24 14:47		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1290**	mg/L	20.0	20.0	1		05/07/24 11:06		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		05/08/24 12:51		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/04/24 14:27	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/04/24 03:30	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.42**	mg/L	0.15	0.13	1	05/14/24 09:30	05/15/24 13:55		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.0**	mg/L	1.0	0.25	1		05/08/24 17:55		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

Sample: MW-41I **Lab ID: 50372108002** Collected: 05/02/24 12:50 Received: 05/02/24 15:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**13.6**	mg/L	0.25	0.067	1		05/08/24 01:13	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/08/24 01:13	16984-48-8	
Sulfate	**74.8**	mg/L	2.5	1.9	10		05/08/24 01:30	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**904**	ug/L	100	11.4	1	05/06/24 08:17	05/08/24 19:04	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	05/06/24 08:17	05/08/24 19:04	7440-43-9	
Calcium	**103000**	ug/L	1000	56.7	1	05/06/24 08:17	05/08/24 19:04	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	05/06/24 08:17	05/08/24 19:04	7440-47-3	
Iron	**4040**	ug/L	100	18.1	1	05/06/24 08:17	05/08/24 19:04	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	05/06/24 08:17	05/08/24 19:04	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	05/06/24 08:17	05/08/24 19:04	7439-93-2	
Magnesium	**24800**	ug/L	1000	32.8	1	05/06/24 08:17	05/08/24 19:04	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	05/06/24 08:17	05/08/24 19:04	7439-98-7	
Potassium	ND	ug/L	1000	120	1	05/06/24 08:17	05/08/24 19:04	7440-09-7	
Sodium	**8520**	ug/L	1000	48.2	1	05/06/24 08:17	05/08/24 19:04	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**886**	ug/L	100	11.4	1	05/08/24 07:58	05/08/24 20:37	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	05/08/24 07:58	05/08/24 20:37	7439-93-2	
Magnesium, Dissolved	**24800**	ug/L	1000	32.8	1	05/08/24 07:58	05/08/24 20:37	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	05/08/24 07:58	05/08/24 20:37	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	120	1	05/08/24 07:58	05/08/24 20:37	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.49	1	05/04/24 15:55	05/07/24 03:18	7440-36-0	
Arsenic	ND	ug/L	1.0	0.075	1	05/04/24 15:55	05/07/24 03:18	7440-38-2	
Barium	**71.3**	ug/L	1.0	0.077	1	05/04/24 15:55	05/07/24 03:18	7440-39-3	
Beryllium	ND	ug/L	0.20	0.035	1	05/04/24 15:55	05/07/24 22:28	7440-41-7	
Cobalt	ND	ug/L	1.0	0.046	1	05/04/24 15:55	05/07/24 03:18	7440-48-4	
Manganese	**1570**	ug/L	10.0	1.7	10	05/04/24 15:55	05/07/24 22:35	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	05/04/24 15:55	05/07/24 03:18	7782-49-2	
Thallium	ND	ug/L	1.0	0.040	1	05/04/24 15:55	05/07/24 03:18	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/04/24 15:55	05/06/24 23:45	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/10/24 10:24	05/12/24 15:18	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

Sample: MW-41I **Lab ID: 50372108002** Collected: 05/02/24 12:50 Received: 05/02/24 15:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**298**	mg/L	10.0	10.0	1		05/04/24 14:47		
Alkalinity,Bicarbonate (CaCO3)	**298**	mg/L	10.0	10.0	1		05/04/24 14:47		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/04/24 14:47		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**374**	mg/L	10.0	10.0	1		05/07/24 11:10		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		05/08/24 12:52		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/04/24 14:27	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/04/24 04:39	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.61**	mg/L	0.15	0.13	1	05/14/24 09:30	05/15/24 13:56		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.1**	mg/L	1.0	0.25	1		05/08/24 18:14		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

Sample: MW-41B **Lab ID: 50372108003** Collected: 05/02/24 10:45 Received: 05/02/24 15:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**9.9**	mg/L	0.25	0.067	1		05/07/24 23:32	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/07/24 23:32	16984-48-8	
Sulfate	**52.5**	mg/L	2.5	1.9	10		05/07/24 23:49	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**517**	ug/L	100	11.4	1	05/06/24 08:17	05/08/24 19:10	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	05/06/24 08:17	05/08/24 19:10	7440-43-9	
Calcium	**106000**	ug/L	1000	56.7	1	05/06/24 08:17	05/08/24 19:10	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	05/06/24 08:17	05/08/24 19:10	7440-47-3	
Iron	ND	ug/L	100	18.1	1	05/06/24 08:17	05/08/24 19:10	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	05/06/24 08:17	05/08/24 19:10	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	05/06/24 08:17	05/08/24 19:10	7439-93-2	
Magnesium	**25500**	ug/L	1000	32.8	1	05/06/24 08:17	05/08/24 19:10	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	05/06/24 08:17	05/08/24 19:10	7439-98-7	
Potassium	ND	ug/L	1000	120	1	05/06/24 08:17	05/08/24 19:10	7440-09-7	
Sodium	**6680**	ug/L	1000	48.2	1	05/06/24 08:17	05/08/24 19:10	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**520**	ug/L	100	11.4	1	05/08/24 07:58	05/08/24 20:38	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	05/08/24 07:58	05/08/24 20:38	7439-93-2	
Magnesium, Dissolved	**25800**	ug/L	1000	32.8	1	05/08/24 07:58	05/08/24 20:38	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	05/08/24 07:58	05/08/24 20:38	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	120	1	05/08/24 07:58	05/08/24 20:38	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.49	1	05/04/24 15:55	05/07/24 03:21	7440-36-0	
Arsenic	ND	ug/L	1.0	0.075	1	05/04/24 15:55	05/07/24 03:21	7440-38-2	
Barium	**38.8**	ug/L	1.0	0.077	1	05/04/24 15:55	05/07/24 03:21	7440-39-3	
Beryllium	ND	ug/L	0.20	0.035	1	05/04/24 15:55	05/07/24 22:42	7440-41-7	
Cobalt	ND	ug/L	1.0	0.046	1	05/04/24 15:55	05/07/24 03:21	7440-48-4	
Manganese	**798**	ug/L	5.0	0.84	5	05/04/24 15:55	05/07/24 22:39	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	05/04/24 15:55	05/07/24 03:21	7782-49-2	
Thallium	ND	ug/L	1.0	0.040	1	05/04/24 15:55	05/07/24 03:21	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/04/24 15:55	05/06/24 23:35	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/10/24 10:24	05/12/24 15:27	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

Sample: MW-41B **Lab ID: 50372108003** Collected: 05/02/24 10:45 Received: 05/02/24 15:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**331**	mg/L	10.0	10.0	1		05/04/24 14:47		
Alkalinity,Bicarbonate (CaCO3)	**331**	mg/L	10.0	10.0	1		05/04/24 14:47		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/04/24 14:47		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**373**	mg/L	10.0	10.0	1		05/07/24 11:11		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		05/08/24 12:52		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/04/24 14:27	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**0.75**	mg/L	0.10	0.013	1		05/04/24 04:32	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	05/14/24 09:30	05/15/24 13:57		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.25	1		05/08/24 18:40		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

QC Batch: 788306
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372108001, 50372108002, 50372108003

METHOD BLANK: 3606316 Matrix: Water
Associated Lab Samples: 50372108001, 50372108002, 50372108003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/07/24 13:22	
Fluoride	mg/L	ND	0.10	0.017	05/07/24 13:22	
Sulfate	mg/L	ND	0.25	0.19	05/07/24 13:22	

LABORATORY CONTROL SAMPLE: 3606317

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.5	99	80-120	
Fluoride	mg/L	1	1.1	107	80-120	
Sulfate	mg/L	5	5.1	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3606318 3606319

Parameter	Units	50372108003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	9.9	2.5	2.5	12.6	12.6	108	108	80-120	0	15	
Fluoride	mg/L	ND	1	1	1.2	1.2	113	111	80-120	1	15	
Sulfate	mg/L	52.5	50	50	104	103	102	102	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

QC Batch: 788696 | Analysis Method: EPA 7470
QC Batch Method: EPA 7470 | Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372108001, 50372108002, 50372108003

METHOD BLANK: 3607931 Matrix: Water
Associated Lab Samples: 50372108001, 50372108002, 50372108003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	05/12/24 14:26	

LABORATORY CONTROL SAMPLE: 3607932

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.4	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3607933 3607934

Parameter	Units	50372104001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.091	5	5	5.6	5.5	113	109	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

QC Batch: 787948
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372108001, 50372108002, 50372108003

METHOD BLANK: 3604668 Matrix: Water
Associated Lab Samples: 50372108001, 50372108002, 50372108003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	11.4	05/08/24 21:04	
Cadmium	ug/L	ND	2.0	0.74	05/08/24 21:04	
Calcium	ug/L	ND	1000	56.7	05/08/24 21:04	
Chromium	ug/L	ND	10.0	1.4	05/08/24 21:04	
Iron	ug/L	ND	100	18.1	05/08/24 21:04	
Lead	ug/L	ND	10.0	4.0	05/08/24 21:04	
Lithium	ug/L	ND	20.0	5.1	05/08/24 21:04	
Magnesium	ug/L	ND	1000	32.8	05/08/24 21:04	
Molybdenum	ug/L	ND	10.0	1.1	05/08/24 21:04	
Potassium	ug/L	ND	1000	120	05/08/24 21:04	
Sodium	ug/L	ND	1000	48.2	05/08/24 21:04	

LABORATORY CONTROL SAMPLE: 3604669

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	974	97	80-120	
Cadmium	ug/L	1000	935	93	80-120	
Calcium	ug/L	10000	10200	102	80-120	
Chromium	ug/L	1000	956	96	80-120	
Iron	ug/L	10000	10400	104	80-120	
Lead	ug/L	1000	914	91	80-120	
Lithium	ug/L	1000	1000	100	80-120	
Magnesium	ug/L	10000	10200	102	80-120	
Molybdenum	ug/L	1000	998	100	80-120	
Potassium	ug/L	10000	9470	95	80-120	
Sodium	ug/L	10000	9980	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3604670 3604671

Parameter	Units	50372105001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	146	1000	1000	1130	1150	98	100	75-125	2	20	
Cadmium	ug/L	ND	1000	1000	934	953	93	95	75-125	2	20	
Calcium	ug/L	87900	10000	10000	92300	95300	44	74	75-125	3	20	P6
Chromium	ug/L	ND	1000	1000	941	959	94	96	75-125	2	20	
Iron	ug/L	1880	10000	10000	12000	12300	101	104	75-125	2	20	
Lead	ug/L	ND	1000	1000	880	899	88	90	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3604670 3604671

Parameter	Units	50372105001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	ND	1000	1000	987	1020	98	101	75-125	3	20	
Magnesium	ug/L	25500	10000	10000	33700	34700	82	92	75-125	3	20	
Molybdenum	ug/L	ND	1000	1000	1010	1030	101	103	75-125	2	20	
Potassium	ug/L	6050	10000	10000	15000	15700	90	97	75-125	4	20	
Sodium	ug/L	88600	10000	10000	92600	96300	40	77	75-125	4	20	P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

QC Batch: 788433
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372108001, 50372108002, 50372108003

METHOD BLANK: 3606766 Matrix: Water
Associated Lab Samples: 50372108001, 50372108002, 50372108003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	11.4	05/08/24 19:57	
Lithium, Dissolved	ug/L	ND	20.0	5.1	05/08/24 19:57	
Magnesium, Dissolved	ug/L	ND	1000	32.8	05/08/24 19:57	
Molybdenum, Dissolved	ug/L	ND	10.0	1.1	05/08/24 19:57	
Potassium, Dissolved	ug/L	ND	1000	120	05/08/24 19:57	

LABORATORY CONTROL SAMPLE: 3606767

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	1000	100	80-120	
Lithium, Dissolved	ug/L	1000	1040	104	80-120	
Magnesium, Dissolved	ug/L	10000	10100	101	80-120	
Molybdenum, Dissolved	ug/L	1000	1030	103	80-120	
Potassium, Dissolved	ug/L	10000	9820	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3606768 3606769

Parameter	Units	50372105001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	144	1000	1000	1170	1160	103	101	75-125	1	20	
Lithium, Dissolved	ug/L	ND	1000	1000	1020	1020	102	102	75-125	0	20	
Magnesium, Dissolved	ug/L	26100	10000	10000	35800	35200	97	91	75-125	2	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1050	1040	104	104	75-125	0	20	
Potassium, Dissolved	ug/L	6200	10000	10000	15800	15800	96	96	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

QC Batch: 788120
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372108001, 50372108002, 50372108003

METHOD BLANK: 3605418 Matrix: Water
Associated Lab Samples: 50372108001, 50372108002, 50372108003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.49	05/07/24 01:50	
Arsenic	ug/L	ND	1.0	0.075	05/07/24 01:50	
Barium	ug/L	ND	1.0	0.077	05/07/24 01:50	
Beryllium	ug/L	ND	0.20	0.035	05/07/24 20:42	
Cobalt	ug/L	ND	1.0	0.046	05/07/24 01:50	
Manganese	ug/L	ND	1.0	0.17	05/07/24 01:50	
Selenium	ug/L	ND	1.0	0.20	05/07/24 01:50	
Thallium	ug/L	ND	1.0	0.040	05/07/24 01:50	

LABORATORY CONTROL SAMPLE: 3605419

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	41.7	104	80-120	
Arsenic	ug/L	40	38.8	97	80-120	
Barium	ug/L	40	39.9	100	80-120	
Beryllium	ug/L	40	39.4	99	80-120	
Cobalt	ug/L	40	41.4	104	80-120	
Manganese	ug/L	40	41.3	103	80-120	
Selenium	ug/L	40	40.0	100	80-120	
Thallium	ug/L	40	41.3	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3605420 3605421

Parameter	Units	50372105001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	41.9	42.0	105	105	75-125	0	20	
Arsenic	ug/L	2.9	40	40	41.3	41.9	96	98	75-125	2	20	
Barium	ug/L	151	40	40	189	189	96	95	75-125	0	20	
Beryllium	ug/L	ND	40	40	39.7	40.4	99	101	75-125	2	20	
Cobalt	ug/L	ND	40	40	38.4	39.1	96	97	75-125	2	20	
Manganese	ug/L	310	40	40	341	345	78	86	75-125	1	20	E
Selenium	ug/L	ND	40	40	39.3	40.0	98	100	75-125	2	20	
Thallium	ug/L	ND	40	40	41.8	41.9	104	105	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

QC Batch: 788119
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372108001, 50372108002, 50372108003

METHOD BLANK: 3605410 Matrix: Water
Associated Lab Samples: 50372108001, 50372108002, 50372108003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.3	05/06/24 22:44	

LABORATORY CONTROL SAMPLE: 3605411

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	416	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3605412 3605413

Parameter	Units	50372108002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	422	417	105	104	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

QC Batch: 788174
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372108001, 50372108002, 50372108003

METHOD BLANK: 3605846 Matrix: Water
Associated Lab Samples: 50372108001, 50372108002, 50372108003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/04/24 14:47	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	05/04/24 14:47	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	05/04/24 14:47	

LABORATORY CONTROL SAMPLE: 3605847

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.0	100	90-110	

SAMPLE DUPLICATE: 3605848

Parameter	Units	50372106010 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	403	404	0	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	403	404	0	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3605849

Parameter	Units	50372108002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	298	301	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	298	301	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

QC Batch: 788248
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372108001

METHOD BLANK: 3606168 Matrix: Water
Associated Lab Samples: 50372108001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/07/24 10:54	

LABORATORY CONTROL SAMPLE: 3606169

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	279	93	80-120	

SAMPLE DUPLICATE: 3606170

Parameter	Units	50372125003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	207	196	5	10	

SAMPLE DUPLICATE: 3606957

Parameter	Units	50372105001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	574	584	2	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

QC Batch: 788459
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372108002, 50372108003

METHOD BLANK: 3606824 Matrix: Water
Associated Lab Samples: 50372108002, 50372108003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/07/24 11:09	

LABORATORY CONTROL SAMPLE: 3606825

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	275	92	80-120	

SAMPLE DUPLICATE: 3606826

Parameter	Units	50372108002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	374	379	1	10	

SAMPLE DUPLICATE: 3606827

Parameter	Units	50372175001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	592	611	3	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

QC Batch: 788717
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372108001, 50372108002, 50372108003

SAMPLE DUPLICATE: 3608068

Parameter	Units	50372105001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.6	7.5	2	2	H3

SAMPLE DUPLICATE: 3608069

Parameter	Units	50372141003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.5	7.4	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

QC Batch: 788186
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372108001, 50372108002, 50372108003

METHOD BLANK: 3605923 Matrix: Water
Associated Lab Samples: 50372108001, 50372108002, 50372108003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/04/24 14:27	

LABORATORY CONTROL SAMPLE: 3605924

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.48	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3605925 3605926

Parameter	Units	50371997001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.42	0.42	82	82	90-110	0	20	M3

MATRIX SPIKE SAMPLE: 3605927

Parameter	Units	50372107001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.45	88	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

QC Batch: 788150
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372108002, 50372108003

METHOD BLANK: 3605762 Matrix: Water
Associated Lab Samples: 50372108002, 50372108003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/04/24 02:14	

LABORATORY CONTROL SAMPLE: 3605763

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3605764 3605765

Parameter	Units	50372105001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.1	1.1	101	103	90-110	2	20	

MATRIX SPIKE SAMPLE: 3605766

Parameter	Units	50372136005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1.2	1	2.2	101	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

QC Batch: 788151
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372108001

METHOD BLANK: 3605767 Matrix: Water
Associated Lab Samples: 50372108001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/04/24 03:08	

LABORATORY CONTROL SAMPLE: 3605768

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	102	90-110	

MATRIX SPIKE SAMPLE: 3605769

Parameter	Units	50372136003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1.4	1	2.5	103	90-110	

MATRIX SPIKE SAMPLE: 3605770

Parameter	Units	50372182002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	5	5.0	101	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

QC Batch: 789735
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372108001, 50372108002, 50372108003

METHOD BLANK: 3613492 Matrix: Water
Associated Lab Samples: 50372108001, 50372108002, 50372108003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	05/15/24 13:48	

LABORATORY CONTROL SAMPLE: 3613493

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3613494 3613495

Parameter	Units	50372107001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	0.22			1.7	1.9				12		

MATRIX SPIKE SAMPLE: 3613496

Parameter	Units	50372108001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	0.42		1.9			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

QC Batch: 788764
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372108001, 50372108002, 50372108003

METHOD BLANK: 3608259 Matrix: Water
Associated Lab Samples: 50372108001, 50372108002, 50372108003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	05/08/24 17:10	

LABORATORY CONTROL SAMPLE: 3608260

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3608261 3608262

Parameter	Units	50372217001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.0	10	10	10.3	10.5	93	95	80-120	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3608263 3608264

Parameter	Units	50372278001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	3.7	10	10	12.9	13.3	93	96	80-120	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

Sample: MW-41A **Lab ID: 50372108001** Collected: 05/02/24 14:15 Received: 05/02/24 15:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.323 ± 0.423 (0.705) C:NA T:88%**	pCi/L	05/27/24 15:06	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.751 ± 0.400 (0.719) C:81% T:86%**	pCi/L	05/22/24 12:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.07 ± 0.823 (1.42)**	pCi/L	05/28/24 14:44	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

Sample: MW-41I **Lab ID: 50372108002** Collected: 05/02/24 12:50 Received: 05/02/24 15:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0475 ± 0.309 (0.622) C:NA T:90%**	pCi/L	05/27/24 15:06	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.618 ± 0.370 (0.690) C:83% T:86%**	pCi/L	05/22/24 12:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.666 ± 0.679 (1.31)**	pCi/L	05/28/24 14:44	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

Sample: MW-41B **Lab ID: 50372108003** Collected: 05/02/24 10:45 Received: 05/02/24 15:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.000 ± 0.493 (0.973) C:NA T:91%**	pCi/L	05/27/24 15:06	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.426 ± 0.347 (0.692) C:83% T:83%**	pCi/L	05/22/24 12:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.426 ± 0.840 (1.67)**	pCi/L	05/28/24 14:44	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

QC Batch: 667237
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372108001, 50372108002, 50372108003

METHOD BLANK: 3248796
Matrix: Water
Associated Lab Samples: 50372108001, 50372108002, 50372108003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.651 ± 0.403 (0.755) C:76% T:87%	pCi/L	05/22/24 12:30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

QC Batch: 667232
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372108001, 50372108002, 50372108003

METHOD BLANK: 3248787
Matrix: Water
Associated Lab Samples: 50372108001, 50372108002, 50372108003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.300 ± 0.404 (0.680) C:NA T:87%	pCi/L	05/27/24 14:53	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50372108001	**MW-41A**	EPA 9056	788306		
50372108002	**MW-41I**	EPA 9056	788306		
50372108003	**MW-41B**	EPA 9056	788306		
50372108001	**MW-41A**	EPA 3010	787948	EPA 6010	788831
50372108002	**MW-41I**	EPA 3010	787948	EPA 6010	788831
50372108003	**MW-41B**	EPA 3010	787948	EPA 6010	788831
50372108001	**MW-41A**	EPA 3010	788433	EPA 6010	788833
50372108002	**MW-41I**	EPA 3010	788433	EPA 6010	788833
50372108003	**MW-41B**	EPA 3010	788433	EPA 6010	788833
50372108001	**MW-41A**	EPA 200.2	788120	EPA 6020	788223
50372108002	**MW-41I**	EPA 200.2	788120	EPA 6020	788223
50372108003	**MW-41B**	EPA 200.2	788120	EPA 6020	788223
50372108001	**MW-41A**	EPA 200.2	788119	EPA 6020	788221
50372108002	**MW-41I**	EPA 200.2	788119	EPA 6020	788221
50372108003	**MW-41B**	EPA 200.2	788119	EPA 6020	788221
50372108001	**MW-41A**	EPA 7470	788696	EPA 7470	789457
50372108002	**MW-41I**	EPA 7470	788696	EPA 7470	789457
50372108003	**MW-41B**	EPA 7470	788696	EPA 7470	789457
50372108001	**MW-41A**	EPA 903.1	667232		
50372108002	**MW-41I**	EPA 903.1	667232		
50372108003	**MW-41B**	EPA 903.1	667232		
50372108001	**MW-41A**	EPA 904.0	667237		
50372108002	**MW-41I**	EPA 904.0	667237		
50372108003	**MW-41B**	EPA 904.0	667237		
50372108001	**MW-41A**	Total Radium Calculation	671718		
50372108002	**MW-41I**	Total Radium Calculation	671718		
50372108003	**MW-41B**	Total Radium Calculation	671718		
50372108001	**MW-41A**	SM 2320B	788174		
50372108002	**MW-41I**	SM 2320B	788174		
50372108003	**MW-41B**	SM 2320B	788174		
50372108001	**MW-41A**	SM 2540C	788248		
50372108002	**MW-41I**	SM 2540C	788459		
50372108003	**MW-41B**	SM 2540C	788459		
50372108001	**MW-41A**	SM 4500-H+B	788717		
50372108002	**MW-41I**	SM 4500-H+B	788717		
50372108003	**MW-41B**	SM 4500-H+B	788717		
50372108001	**MW-41A**	SM 4500-S2-D	788186		
50372108002	**MW-41I**	SM 4500-S2-D	788186		
50372108003	**MW-41B**	SM 4500-S2-D	788186		
50372108001	**MW-41A**	EPA 353.2	788151		
50372108002	**MW-41I**	EPA 353.2	788150		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R4
Pace Project No.: 50372108

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50372108003	**MW-41B**	EPA 353.2	788150		
50372108001	**MW-41A**	EPA 365.1	789735	EPA 365.1	790174
50372108002	**MW-41I**	EPA 365.1	789735	EPA 365.1	790174
50372108003	**MW-41B**	EPA 365.1	789735	EPA 365.1	790174
50372108001	**MW-41A**	SM 5310C	788764		
50372108002	**MW-41I**	SM 5310C	788764		
50372108003	**MW-41B**	SM 5310C	788764		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request D

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields mu

WO# : 50372108

50372108

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P4 May 2024	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:	P4RY	Pace Profile #:	10498/60

Regulatory Agency
State / Location
IN

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO3 Wet	(Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity,pH	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum				Residual Chlorine (Y/N)	
																		Requested Analysis Filtered (Y/N)				Y			Y					
1	MW-41A	WT	G	5/2/24	1415				10	3	2	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓				
2	MW-41I	↓	↓	↓	1350				↓	↓	↓	↓		↓					↓	↓	↓	↓	↓	↓	↓	↓	↓				
3	MW-41B	↓	↓	↓	1045				↓	↓	↓	↓		↓					↓	↓	↓	↓	↓	↓	↓	↓	↓				
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
* Metals: 6010 (B, Cd, Cr, Fe, Pb, Mo, Ca, Mg, Na, K, Li) (11)	Mohammed Barlamit	5/2/24	1510	T.H	5/2/24	15:10	2.9	Y	~	Y
6020 (Be, Mn, Co, As, Se, Sb, Ba, Tl) (8), 7470 (Hg)										
** Dissolved FF 6010 (B, Mo, Mg, K, Li) (5) FF 6020 (Al) (1)										
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Hayley Torres					
SIGNATURE of SAMPLER:		DATE Signed: 5/2/24				

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 5/2/24 19:11 TH

1. **Courier:** ☐FED EX | UPS ☑CLIENT ☐PACE ☐NOW/JETT | OTHER _____
2. **Custody Seal on Cooler/Box Present:** | | Yes ☑ No
   (If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 **A B C D E F G H**
4. **Cooler Temperature(s):** (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

2.9/2.9	5.0/5.0		

5. **Packing Material:** | |Bubble Wrap ☑ Bubble Bags | | None | | Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **Was the PM notified of out of temp cooler?:** | |Yes ☐No
   Cooler temp should be above freezing to 6°C
8. **EZ Bottle Order?** | Yes ☑No

If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.**	✓		
Short Hold Time Analysis (48 hours or less)? Analysis: NO3 wet	✓		**Circle:** HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form			
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A ✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Custody Signatures Present?	✓		Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Containers Intact?:	✓		Headspace Wisconsin Sulfide?			✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
			Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 **of** 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1													↓			↓	↓	↓	↓	↓	↓		↓				↓	✓	✓		✓
2													↓			↓	↓	↓	↓	↓	↓		↓				↓	↓	✓		↓
3													↓			↓	↓	↓	↓	↓	↓		↓				↓	↓	✓		↓
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

July 24, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 P2R1
Pace Project No.: 50372174

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 03, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372174

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372174

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50372174001	**MW-2R**	Water	05/02/24 16:50	05/03/24 09:45

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372174

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50372174001	**MW-2R**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ABH	11	PASI-I
		EPA 6010	NWB	3	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	JTR	1	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372174

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372174001	**MW-2R**					
EPA 9056	Chloride	76.2	mg/L	2.5	05/10/24 11:51	
EPA 9056	Sulfate	1650	mg/L	25.0	05/10/24 12:07	
EPA 6010	Boron	1860	ug/L	100	05/08/24 18:12	
EPA 6010	Calcium	514000	ug/L	5000	05/08/24 21:00	
EPA 6010	Iron	15500	ug/L	100	05/08/24 18:12	
EPA 6010	Lithium	778	ug/L	20.0	05/08/24 18:12	
EPA 6010	Magnesium	60300	ug/L	1000	05/08/24 18:12	
EPA 6010	Molybdenum	10.4	ug/L	10.0	05/08/24 18:12	
EPA 6010	Potassium	103000	ug/L	5000	05/08/24 21:00	
EPA 6010	Sodium	112000	ug/L	1000	05/08/24 18:12	
EPA 6010	Boron, Dissolved	1770	ug/L	100	05/10/24 09:32	
EPA 6010	Lithium, Dissolved	709	ug/L	20.0	05/10/24 09:32	
EPA 6010	Molybdenum, Dissolved	10.0	ug/L	10.0	05/10/24 09:32	
EPA 6020	Arsenic	10.8	ug/L	1.0	05/08/24 08:58	
EPA 6020	Barium	53.6	ug/L	1.0	05/08/24 08:58	
EPA 6020	Cobalt	3.3	ug/L	1.0	05/08/24 08:58	
EPA 6020	Manganese	6870	ug/L	50.0	05/08/24 06:55	
EPA 903.1	Radium-226	0.432 ± 0.426 (0.648) C:NA T:90%	pCi/L		05/24/24 15:33	
EPA 904.0	Radium-228	1.26 ± 0.486 (0.749) C:84% T:85%	pCi/L		05/22/24 15:42	
Total Radium Calculation	Total Radium	1.69 ± 0.912 (1.40)	pCi/L		05/28/24 15:01	
SM 2320B	Alkalinity, Total as CaCO3	139	mg/L	10.0	05/07/24 15:19	
SM 2540C	Total Dissolved Solids	2620	mg/L	40.0	05/07/24 11:19	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	05/09/24 13:59	H3
SM 5310C	Dissolved Organic Carbon	3.3	mg/L	1.0	05/08/24 20:11	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372174

Sample: MW-2R **Lab ID: 50372174001** Collected: 05/02/24 16:50 Received: 05/03/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**76.2**	mg/L	2.5	0.67	10		05/10/24 11:51	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/10/24 11:34	16984-48-8	
Sulfate	**1650**	mg/L	25.0	19.0	100		05/10/24 12:07	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**1860**	ug/L	100	11.4	1	05/08/24 07:58	05/08/24 18:12	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	05/08/24 07:58	05/08/24 18:12	7440-43-9	
Calcium	**514000**	ug/L	5000	284	5	05/08/24 07:58	05/08/24 21:00	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	05/08/24 07:58	05/08/24 18:12	7440-47-3	
Iron	**15500**	ug/L	100	18.1	1	05/08/24 07:58	05/08/24 18:12	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	05/08/24 07:58	05/08/24 18:12	7439-92-1	
Lithium	**778**	ug/L	20.0	5.1	1	05/08/24 07:58	05/08/24 18:12	7439-93-2	
Magnesium	**60300**	ug/L	1000	32.8	1	05/08/24 07:58	05/08/24 18:12	7439-95-4	
Molybdenum	**10.4**	ug/L	10.0	1.1	1	05/08/24 07:58	05/08/24 18:12	7439-98-7	
Potassium	**103000**	ug/L	5000	600	5	05/08/24 07:58	05/08/24 21:00	7440-09-7	
Sodium	**112000**	ug/L	1000	48.2	1	05/08/24 07:58	05/08/24 18:12	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1770**	ug/L	100	11.4	1	05/08/24 20:22	05/10/24 09:32	7440-42-8	
Lithium, Dissolved	**709**	ug/L	20.0	5.1	1	05/08/24 20:22	05/10/24 09:32	7439-93-2	
Molybdenum, Dissolved	**10.0**	ug/L	10.0	1.1	1	05/08/24 20:22	05/10/24 09:32	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	05/07/24 15:30	05/08/24 08:58	7440-36-0	
Arsenic	**10.8**	ug/L	1.0	0.10	1	05/07/24 15:30	05/08/24 08:58	7440-38-2	
Barium	**53.6**	ug/L	1.0	0.062	1	05/07/24 15:30	05/08/24 08:58	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	05/07/24 15:30	05/08/24 08:58	7440-41-7	
Cobalt	**3.3**	ug/L	1.0	0.060	1	05/07/24 15:30	05/08/24 08:58	7440-48-4	
Manganese	**6870**	ug/L	50.0	7.4	50	05/07/24 15:30	05/08/24 06:55	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	05/07/24 15:30	05/08/24 08:58	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	05/07/24 15:30	05/08/24 08:58	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/08/24 07:45	05/08/24 16:12	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/10/24 10:37	05/12/24 16:11	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372174

Sample: MW-2R **Lab ID: 50372174001** Collected: 05/02/24 16:50 Received: 05/03/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**139**	mg/L	10.0	10.0	1		05/07/24 15:19		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2620**	mg/L	40.0	40.0	1		05/07/24 11:19		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		05/09/24 13:59		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/04/24 16:32	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/04/24 03:38	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	1.5	1.3	10	05/14/24 09:30	05/17/24 15:20		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.3**	mg/L	1.0	0.25	1		05/08/24 20:11		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372174

QC Batch: 788743
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372174001

METHOD BLANK: 3608176 Matrix: Water
Associated Lab Samples: 50372174001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/10/24 11:01	
Fluoride	mg/L	ND	0.10	0.017	05/10/24 11:01	
Sulfate	mg/L	ND	0.25	0.19	05/10/24 11:01	

LABORATORY CONTROL SAMPLE: 3608177

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	93	80-120	
Fluoride	mg/L	1	0.97	97	80-120	
Sulfate	mg/L	5	4.9	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3608178 3608179

Parameter	Units	50372217001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	66.2	25	25	89.5	89.1	93	92	80-120	0	15	
Fluoride	mg/L	2.9	1	1	3.9	3.9	102	101	80-120	0	15	
Sulfate	mg/L	64.4	50	50	111	111	93	93	80-120	0	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3608180 3608181

Parameter	Units	50372278001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	24.8	2.5	2.5	27.4	27.5	104	108	80-120	0	15	E
Fluoride	mg/L	ND	1	1	1.1	1.1	100	101	80-120	1	15	
Sulfate	mg/L	290	50	50	336	334	92	89	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372174

QC Batch: 788875
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372174001

METHOD BLANK: 3608998 Matrix: Water
Associated Lab Samples: 50372174001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	05/12/24 15:37	

LABORATORY CONTROL SAMPLE: 3608999

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.5	110	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3609000 3609001

Parameter	Units	50372141005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.4	5.3	109	107	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372174

QC Batch: 788213
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50372174001

METHOD BLANK: 3606075 Matrix: Water
Associated Lab Samples: 50372174001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	11.4	05/08/24 17:25	
Cadmium	ug/L	ND	2.0	0.74	05/08/24 17:25	
Calcium	ug/L	ND	1000	56.7	05/08/24 17:25	
Chromium	ug/L	ND	10.0	1.4	05/08/24 17:25	
Iron	ug/L	ND	100	18.1	05/08/24 17:25	
Lead	ug/L	ND	10.0	4.0	05/08/24 17:25	
Lithium	ug/L	ND	20.0	5.1	05/08/24 17:25	
Magnesium	ug/L	ND	1000	32.8	05/08/24 17:25	
Molybdenum	ug/L	ND	10.0	1.1	05/08/24 17:25	
Potassium	ug/L	ND	1000	120	05/08/24 17:25	
Sodium	ug/L	ND	1000	48.2	05/08/24 17:25	

LABORATORY CONTROL SAMPLE: 3606076

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	992	99	80-120	
Cadmium	ug/L	1000	954	95	80-120	
Calcium	ug/L	10000	10100	101	80-120	
Chromium	ug/L	1000	985	99	80-120	
Iron	ug/L	10000	10800	108	80-120	
Lead	ug/L	1000	939	94	80-120	
Lithium	ug/L	1000	1030	103	80-120	
Magnesium	ug/L	10000	9980	100	80-120	
Molybdenum	ug/L	1000	1030	103	80-120	
Potassium	ug/L	10000	9790	98	80-120	
Sodium	ug/L	10000	9730	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3606077 3606078

Parameter	Units	50372152001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	9940	1000	1000	10800	10900	90	99	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	1020	1040	102	104	75-125	2	20	
Calcium	ug/L	833000	10000	10000	824000	844000	-84	115	75-125	2	20	P6
Chromium	ug/L	ND	1000	1000	926	950	92	95	75-125	3	20	
Iron	ug/L	ND	10000	10000	10000	10300	100	102	75-125	3	20	
Lead	ug/L	ND	1000	1000	809	824	81	82	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372174

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3606077 3606078

Parameter	Units	50372152001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	4270	1000	1000	5210	5350	94	109	75-125	3	20	
Magnesium	ug/L	1500000	10000	10000	1480000	1510000	-237	75	75-125	2	20	P6
Molybdenum	ug/L	ND	1000	1000	1020	1040	102	104	75-125	2	20	
Potassium	ug/L	76600	10000	10000	85300	87900	87	113	75-125	3	20	
Sodium	ug/L	6050000	10000	10000	5890000	6040000	-1610	-173	75-125	2	20	P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372174

QC Batch: 788557
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372174001

METHOD BLANK: 3607179 Matrix: Water
Associated Lab Samples: 50372174001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	11.4	05/10/24 09:07	
Lithium, Dissolved	ug/L	ND	20.0	5.1	05/10/24 09:07	
Molybdenum, Dissolved	ug/L	ND	10.0	1.1	05/10/24 09:07	

LABORATORY CONTROL SAMPLE: 3607180

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	981	98	80-120	
Lithium, Dissolved	ug/L	1000	1020	102	80-120	
Molybdenum, Dissolved	ug/L	1000	1010	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3607181 3607182

Parameter	Units	50372217001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	1100	1000	1000	2020	2110	92	101	75-125	4	20	
Lithium, Dissolved	ug/L	39.1	1000	1000	988	1020	95	98	75-125	3	20	
Molybdenum, Dissolved	ug/L	22.0	1000	1000	980	1020	96	100	75-125	4	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372174

QC Batch: 788390
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50372174001

METHOD BLANK: 3606566 Matrix: Water
Associated Lab Samples: 50372174001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.26	05/08/24 06:31	
Arsenic	ug/L	ND	1.0	0.10	05/08/24 06:31	
Barium	ug/L	ND	1.0	0.062	05/08/24 06:31	
Beryllium	ug/L	ND	0.20	0.020	05/08/24 06:31	
Cobalt	ug/L	ND	1.0	0.060	05/08/24 06:31	
Manganese	ug/L	ND	1.0	0.15	05/08/24 06:31	
Selenium	ug/L	ND	1.0	0.36	05/08/24 06:31	
Thallium	ug/L	ND	1.0	0.079	05/08/24 06:31	

LABORATORY CONTROL SAMPLE: 3606567

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.4	106	80-120	
Arsenic	ug/L	40	40.1	100	80-120	
Barium	ug/L	40	39.3	98	80-120	
Beryllium	ug/L	40	38.7	97	80-120	
Cobalt	ug/L	40	41.1	103	80-120	
Manganese	ug/L	40	41.5	104	80-120	
Selenium	ug/L	40	40.4	101	80-120	
Thallium	ug/L	40	39.4	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3606568 3606569

Parameter	Units	50372217001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	43.4	43.1	108	107	75-125	1	20	
Arsenic	ug/L	1.2	40	40	41.9	41.4	102	100	75-125	1	20	
Barium	ug/L	226	40	40	253	258	69	80	75-125	2	20	P6
Beryllium	ug/L	ND	40	40	40.4	40.8	101	102	75-125	1	20	
Cobalt	ug/L	ND	40	40	38.3	38.5	96	96	75-125	0	20	
Manganese	ug/L	25.4	40	40	63.5	63.8	95	96	75-125	1	20	
Selenium	ug/L	ND	40	40	39.6	39.7	99	99	75-125	0	20	
Thallium	ug/L	ND	40	40	39.3	39.1	98	98	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372174

QC Batch: 788588
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372174001

METHOD BLANK: 3607528 Matrix: Water
Associated Lab Samples: 50372174001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.3	05/08/24 16:04	

LABORATORY CONTROL SAMPLE: 3607529

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	395	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3607530 3607531

Parameter	Units	50372217001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	410	419	101	103	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372174

QC Batch: 788503
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372174001

METHOD BLANK: 3606920 Matrix: Water
Associated Lab Samples: 50372174001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/07/24 15:19	

LABORATORY CONTROL SAMPLE: 3606921

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.1	98	90-110	

SAMPLE DUPLICATE: 3606922

Parameter	Units	50372182002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	330	278	17	20	

SAMPLE DUPLICATE: 3606923

Parameter	Units	50372217001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	461	465	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372174

QC Batch: 788459
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372174001

METHOD BLANK: 3606824 Matrix: Water
Associated Lab Samples: 50372174001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/07/24 11:09	

LABORATORY CONTROL SAMPLE: 3606825

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	275	92	80-120	

SAMPLE DUPLICATE: 3606826

Parameter	Units	50372108002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	374	379	1	10	

SAMPLE DUPLICATE: 3606827

Parameter	Units	50372175001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	592	611	3	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372174

QC Batch: 788721
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50372174001

SAMPLE DUPLICATE: 3608082

Parameter	Units	50372217001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.2	8.2	0	2	H3

SAMPLE DUPLICATE: 3608083

Parameter	Units	50372252004 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.2	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372174

QC Batch: 788191
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372174001

METHOD BLANK: 3606016 Matrix: Water
Associated Lab Samples: 50372174001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/04/24 16:32	

LABORATORY CONTROL SAMPLE: 3606017

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3606018 3606019

Parameter	Units	50372217001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	0.15	0.5	0.5	0.64	0.61	97	92	90-110	4	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372174

QC Batch: 788151
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372174001

METHOD BLANK: 3605767 Matrix: Water
Associated Lab Samples: 50372174001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/04/24 03:08	

LABORATORY CONTROL SAMPLE: 3605768

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	102	90-110	

MATRIX SPIKE SAMPLE: 3605769

Parameter	Units	50372136003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1.4	1	2.5	103	90-110	

MATRIX SPIKE SAMPLE: 3605770

Parameter	Units	50372182002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	5	5.0	101	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372174

QC Batch: 789736
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372174001

METHOD BLANK: 3613497 Matrix: Water
Associated Lab Samples: 50372174001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	05/17/24 15:14	

LABORATORY CONTROL SAMPLE: 3613498

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3613499 3613500

Parameter	Units	50372136003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.6	1.5				2		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372174

QC Batch: 788764
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372174001

METHOD BLANK: 3608259 Matrix: Water
Associated Lab Samples: 50372174001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	05/08/24 17:10	

LABORATORY CONTROL SAMPLE: 3608260

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3608261 3608262

Parameter	Units	50372217001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.0	10	10	10.3	10.5	93	95	80-120	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3608263 3608264

Parameter	Units	50372278001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	3.7	10	10	12.9	13.3	93	96	80-120	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372174

Sample: MW-2R **Lab ID: 50372174001** Collected: 05/02/24 16:50 Received: 05/03/24 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.432 ± 0.426 (0.648) C:NA T:90%**	pCi/L	05/24/24 15:33	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.26 ± 0.486 (0.749) C:84% T:85%**	pCi/L	05/22/24 15:42	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.69 ± 0.912 (1.40)**	pCi/L	05/28/24 15:01	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372174

QC Batch: 667225
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372174001

METHOD BLANK: 3248761 Matrix: Water
Associated Lab Samples: 50372174001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.244 ± 0.253 (0.377) C:NA T:95%	pCi/L	05/24/24 15:19	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372174

QC Batch: 667228
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372174001

METHOD BLANK: 3248767 Matrix: Water
Associated Lab Samples: 50372174001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.534 ± 0.349 (0.645) C:78% T:84%	pCi/L	05/22/24 15:40	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372174

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372174

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50372174001	**MW-2R**	EPA 9056	788743		
50372174001	**MW-2R**	EPA 3010	788213	EPA 6010	788830
50372174001	**MW-2R**	EPA 3010	788557	EPA 6010	789183
50372174001	**MW-2R**	EPA 200.2	788390	EPA 6020	788630
50372174001	**MW-2R**	EPA 200.2	788588	EPA 6020	788786
50372174001	**MW-2R**	EPA 7470	788875	EPA 7470	789458
50372174001	**MW-2R**	EPA 903.1	667225		
50372174001	**MW-2R**	EPA 904.0	667228		
50372174001	**MW-2R**	Total Radium Calculation	671739		
50372174001	**MW-2R**	SM 2320B	788503		
50372174001	**MW-2R**	SM 2540C	788459		
50372174001	**MW-2R**	SM 4500-H+B	788721		
50372174001	**MW-2R**	SM 4500-S2-D	788191		
50372174001	**MW-2R**	EPA 353.2	788151		
50372174001	**MW-2R**	EPA 365.1	789736	EPA 365.1	790664
50372174001	**MW-2R**	SM 5310C	788764		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / A

The Chain-of-Custody is a LEGAL DOC

WO# : 50372174

50372174

Page 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg May 2024 P2R1	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:		Pace Profile #:	10498/59

Regulatory Agency	
State / Location	IN

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total Metals 6010/6020/7470	Diss. Metals 6010/6020	DOC by 5310	Alkalinity/pH	Cl, F, SO4 by 9056	TDS by 2540C	Nitrate by 353.2	Phosphate by 365.1	Sulfide by 4500	Rad 226/228 + Sum to PA	Residual Chlorine (Y/N)
1	MW-2R					5-2-24	1650		10	X	X	X		X					X	X	X	X	X	X	X	X	X
2																											
3																											
4																											
5																											
6																											
7																											
8																											
9																											
10																											
11																											
12																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
s* 6010: B, Cd, Cr, Fe, Pb, Mo, Ca, Mg, Na, K, Li (11)	Josh O'Brien	5-3-24	7:30	Jay Wallace	5/3	7:10				
Be, Mn, Co, As, Se, Sb, Ba, Tl (8). 7470: Hg (1)	Jay Williams	5-3	9:45		5-3-24	9:45	1.3	Y	N	Y
3010: B, Mo, Li (3). Diss 6020: Al, Mn (2)							0.6			
							0.7			

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Josh O'Brien					
SIGNATURE of SAMPLER:		DATE Signed: 5-2-24				

F-IN-Q-290-rev.26, 30Apr2024

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: RC 5-3-24 13:07

1. Courier: ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. Custody Seal on Cooler/Box Present: ☐ Yes ☑ No

(If yes)Seals Intact: ☐ Yes ☐ No (leave blank if no seals were present)

3. Thermometer: 1 2 3 4 5 6 7 8 A B C D E F G H

4. Cooler Temperature(s): (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

1.2/1.3	0.5/0.6	0.6/0.7	

5. Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. Ice Type: ☑ Wet ☐ Blue ☐ None

7. Was the PM notified of out of temp cooler?: ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

8. EZ Bottle Order? ☐ Yes ☑ No

If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓
Short Hold Time Analysis (48 hours or less)? Analysis: NO3	✓	
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 1415	
Rush TAT Requested (4 days or less):		✓
Custody Signatures Present?	✓	
Containers Intact?:	✓	
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓	
Extra labels on Terracore Vials? (soils only)		

	Yes	No	N/A
All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl. Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	✓		
	Present	Absent	N/A
Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Headspace Wisconsin Sulfide?			✓
Headspace in VOA Vials (>6mm): See Containter Count form for details			No VOA Vials Sent ✓
Trip Blank Present?		✓	
Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC									OTHER								
			MeOH (only)																											Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
			SBS																											Red	Yellow	Green	Black
			DI		VOA VIAL HS >6mm																												
COC Line Item	WGFU	WGKU BG1U	R	DG9H VG9H		VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
1													1			2	1	2	1	1	1		1				WT	✓	✓	.	✓
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

July 24, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 P1R1
Pace Project No.: 50372196

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 03, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372196

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372196

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50372196001	**MW-2R**	Water	05/02/24 16:50	05/03/24 09:45

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372196

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50372196001	**MW-2R**	EPA 9056	KBB	3	PASI-I
		EPA 6010	JPK	9	PASI-I
		EPA 6020	MTM	9	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C	SL	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372196

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372196001	**MW-2R**					
EPA 9056	Chloride	80.0	mg/L	2.5	05/10/24 02:55	
EPA 9056	Sulfate	1620	mg/L	25.0	05/10/24 03:12	
EPA 6010	Boron	1730	ug/L	100	05/08/24 23:56	
EPA 6010	Calcium	505000	ug/L	5000	05/09/24 00:00	
EPA 6010	Iron	21400	ug/L	100	05/08/24 23:56	
EPA 6010	Lithium	804	ug/L	20.0	05/08/24 23:56	
EPA 6010	Manganese	6250	ug/L	10.0	05/08/24 23:56	
EPA 6010	Molybdenum	10.1	ug/L	10.0	05/08/24 23:56	
EPA 6020	Arsenic	20.7	ug/L	1.0	05/08/24 07:43	
EPA 6020	Barium	77.9	ug/L	1.0	05/08/24 07:43	
EPA 6020	Beryllium	0.21	ug/L	0.20	05/08/24 07:43	
EPA 6020	Cobalt	3.7	ug/L	1.0	05/08/24 07:43	
EPA 6020	Copper	5.9	ug/L	1.0	05/08/24 07:43	
EPA 6020	Selenium	1.5	ug/L	1.0	05/08/24 07:43	
EPA 6020	Zinc	15.2	ug/L	3.0	05/08/24 07:43	
EPA 903.1	Radium-226	0.527 ± 0.640 (1.06) C:NA T:88%	pCi/L		05/24/24 15:33	
EPA 904.0	Radium-228	1.13 ± 0.479 (0.785) C:83% T:85%	pCi/L		05/22/24 15:42	
Total Radium Calculation	Total Radium	1.66 ± 1.12 (1.85)	pCi/L		05/28/24 15:01	
SM 2540C	Total Dissolved Solids	2310	mg/L	40.0	05/08/24 12:05	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372196

Sample: MW-2R **Lab ID: 50372196001** Collected: 05/02/24 16:50 Received: 05/03/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**80.0**	mg/L	2.5	0.67	10		05/10/24 02:55	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/10/24 02:37	16984-48-8	
Sulfate	**1620**	mg/L	25.0	19.0	100		05/10/24 03:12	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**1730**	ug/L	100	6.2	1	05/08/24 08:15	05/08/24 23:56	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/08/24 08:15	05/08/24 23:56	7440-43-9	
Calcium	**505000**	ug/L	5000	338	5	05/08/24 08:15	05/09/24 00:00	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/08/24 08:15	05/08/24 23:56	7440-47-3	
Iron	**21400**	ug/L	100	30.0	1	05/08/24 08:15	05/08/24 23:56	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/08/24 08:15	05/08/24 23:56	7439-92-1	
Lithium	**804**	ug/L	20.0	6.8	1	05/08/24 08:15	05/08/24 23:56	7439-93-2	
Manganese	**6250**	ug/L	10.0	1.8	1	05/08/24 08:15	05/08/24 23:56	7439-96-5	
Molybdenum	**10.1**	ug/L	10.0	0.78	1	05/08/24 08:15	05/08/24 23:56	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	05/07/24 15:30	05/08/24 07:43	7440-36-0	
Arsenic	**20.7**	ug/L	1.0	0.10	1	05/07/24 15:30	05/08/24 07:43	7440-38-2	
Barium	**77.9**	ug/L	1.0	0.062	1	05/07/24 15:30	05/08/24 07:43	7440-39-3	
Beryllium	**0.21**	ug/L	0.20	0.020	1	05/07/24 15:30	05/08/24 07:43	7440-41-7	
Cobalt	**3.7**	ug/L	1.0	0.060	1	05/07/24 15:30	05/08/24 07:43	7440-48-4	
Copper	**5.9**	ug/L	1.0	0.66	1	05/07/24 15:30	05/08/24 07:43	7440-50-8	
Selenium	**1.5**	ug/L	1.0	0.36	1	05/07/24 15:30	05/08/24 07:43	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	05/07/24 15:30	05/08/24 07:43	7440-28-0	
Zinc	**15.2**	ug/L	3.0	1.3	1	05/07/24 15:30	05/08/24 07:43	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/10/24 10:42	05/12/24 17:12	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2310**	mg/L	40.0	40.0	1		05/08/24 12:05		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372196

QC Batch: 788311
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50372196001

METHOD BLANK: 3606320 Matrix: Water
Associated Lab Samples: 50372196001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/09/24 13:51	
Fluoride	mg/L	ND	0.10	0.017	05/09/24 13:51	
Sulfate	mg/L	ND	0.25	0.19	05/09/24 13:51	

LABORATORY CONTROL SAMPLE: 3606321

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	92	80-120	
Fluoride	mg/L	1	0.97	97	80-120	
Sulfate	mg/L	5	4.6	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3606322 3606323

Parameter	Units	50372183002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	229	25	25	254	249	101	80	80-120	2	15	E
Fluoride	mg/L	0.78	1	1	1.8	1.8	98	99	80-120	0	15	
Sulfate	mg/L	523	500	500	953	938	86	83	80-120	2	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372196

QC Batch: 789004
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372196001

METHOD BLANK: 3609483 Matrix: Water
Associated Lab Samples: 50372196001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	05/12/24 16:41	

LABORATORY CONTROL SAMPLE: 3609484

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.9	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3609485 3609486

Parameter	Units	50372217001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.2	5.1	104	102	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372196

QC Batch: 788431
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50372196001

METHOD BLANK: 3606756 Matrix: Water
Associated Lab Samples: 50372196001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	05/08/24 23:20	
Cadmium	ug/L	ND	2.0	0.60	05/08/24 23:20	
Calcium	ug/L	ND	1000	67.7	05/08/24 23:20	
Chromium	ug/L	ND	10.0	0.42	05/08/24 23:20	
Iron	ug/L	ND	100	30.0	05/08/24 23:20	
Lead	ug/L	ND	10.0	2.5	05/08/24 23:20	
Lithium	ug/L	ND	20.0	6.8	05/08/24 23:20	
Manganese	ug/L	ND	10.0	1.8	05/08/24 23:20	
Molybdenum	ug/L	ND	10.0	0.78	05/08/24 23:20	

LABORATORY CONTROL SAMPLE: 3606757

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	941	94	80-120	
Cadmium	ug/L	1000	932	93	80-120	
Calcium	ug/L	10000	9750	98	80-120	
Chromium	ug/L	1000	942	94	80-120	
Iron	ug/L	10000	9630	96	80-120	
Lead	ug/L	1000	919	92	80-120	
Lithium	ug/L	1000	985	99	80-120	
Manganese	ug/L	1000	952	95	80-120	
Molybdenum	ug/L	1000	994	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3606758 3606759

Parameter	Units	50372224024 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	ND	5000	5000	4790	4880	94	96	75-125	2	20	
Cadmium	ug/L	11.1	5000	5000	4640	4700	93	94	75-125	1	20	
Calcium	ug/L	272000	50000	50000	314000	319000	85	94	75-125	1	20	
Chromium	ug/L	ND	5000	5000	4640	4710	92	93	75-125	1	20	
Iron	ug/L	183000	50000	50000	225000	228000	84	91	75-125	2	20	
Lead	ug/L	91.3	5000	5000	4530	4590	89	90	75-125	1	20	
Lithium	ug/L	ND	5000	5000	4890	4910	97	97	75-125	0	20	
Manganese	ug/L	1540	5000	5000	6120	6210	92	93	75-125	1	20	
Molybdenum	ug/L	297	5000	5000	5230	5310	99	100	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372196

QC Batch: 788390
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372196001

METHOD BLANK: 3606566 Matrix: Water
Associated Lab Samples: 50372196001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.26	05/08/24 06:31	
Arsenic	ug/L	ND	1.0	0.10	05/08/24 06:31	
Barium	ug/L	ND	1.0	0.062	05/08/24 06:31	
Beryllium	ug/L	ND	0.20	0.020	05/08/24 06:31	
Cobalt	ug/L	ND	1.0	0.060	05/08/24 06:31	
Copper	ug/L	ND	1.0	0.66	05/08/24 06:31	
Selenium	ug/L	ND	1.0	0.36	05/08/24 06:31	
Thallium	ug/L	ND	1.0	0.079	05/08/24 06:31	
Zinc	ug/L	ND	3.0	1.3	05/08/24 06:31	

LABORATORY CONTROL SAMPLE: 3606567

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.4	106	80-120	
Arsenic	ug/L	40	40.1	100	80-120	
Barium	ug/L	40	39.3	98	80-120	
Beryllium	ug/L	40	38.7	97	80-120	
Cobalt	ug/L	40	41.1	103	80-120	
Copper	ug/L	40	38.6	96	80-120	
Selenium	ug/L	40	40.4	101	80-120	
Thallium	ug/L	40	39.4	98	80-120	
Zinc	ug/L	40	39.9	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3606568 3606569

Parameter	Units	50372217001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	43.4	43.1	108	107	75-125	1	20	
Arsenic	ug/L	1.2	40	40	41.9	41.4	102	100	75-125	1	20	
Barium	ug/L	226	40	40	253	258	69	80	75-125	2	20	P6
Beryllium	ug/L	ND	40	40	40.4	40.8	101	102	75-125	1	20	
Cobalt	ug/L	ND	40	40	38.3	38.5	96	96	75-125	0	20	
Copper	ug/L	ND	40	40	35.7	36.0	88	89	75-125	1	20	
Selenium	ug/L	ND	40	40	39.6	39.7	99	99	75-125	0	20	
Thallium	ug/L	ND	40	40	39.3	39.1	98	98	75-125	1	20	
Zinc	ug/L	ND	40	40	38.9	39.6	94	96	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372196

QC Batch: 788651
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372196001

METHOD BLANK: 3607813 Matrix: Water
Associated Lab Samples: 50372196001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/08/24 12:03	

LABORATORY CONTROL SAMPLE: 3607814

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	275	92	80-120	

SAMPLE DUPLICATE: 3607815

Parameter	Units	50372175002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	182	199	9	10	

SAMPLE DUPLICATE: 3607816

Parameter	Units	50372183003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1600	1570	2	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372196

Sample: MW-2R **Lab ID: 50372196001** Collected: 05/02/24 16:50 Received: 05/03/24 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.527 ± 0.640 (1.06) C:NA T:88%**	pCi/L	05/24/24 15:33	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.13 ± 0.479 (0.785) C:83% T:85%**	pCi/L	05/22/24 15:42	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.66 ± 1.12 (1.85)**	pCi/L	05/28/24 15:01	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372196

QC Batch: 667225
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372196001

METHOD BLANK: 3248761 Matrix: Water
Associated Lab Samples: 50372196001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.244 ± 0.253 (0.377) C:NA T:95%	pCi/L	05/24/24 15:19	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372196

QC Batch: 667228
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372196001

METHOD BLANK: 3248767 Matrix: Water
Associated Lab Samples: 50372196001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.534 ± 0.349 (0.645) C:78% T:84%	pCi/L	05/22/24 15:40	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372196

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372196

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50372196001	**MW-2R**	EPA 9056	788311		
50372196001	**MW-2R**	EPA 3010	788431	EPA 6010	788877
50372196001	**MW-2R**	EPA 200.2	788390	EPA 6020	788630
50372196001	**MW-2R**	EPA 7470	789004	EPA 7470	789459
50372196001	**MW-2R**	EPA 903.1	667225		
50372196001	**MW-2R**	EPA 904.0	667228		
50372196001	**MW-2R**	Total Radium Calculation	671739		
50372196001	**MW-2R**	SM 2540C	788651		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO# : 50372196

50372196

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request Do

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg May 2024 P1R1	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:		Pace Profile #:	10498/58

Regulatory Agency

State / Location: IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	Metals by 6010/6020/7470	Cl, F, SO4 by 9056	TDS by 2540C	Rad-226/228 + Sum	Residual Chlorine (Y/N)
1	MW-2R					5-2-24	1650		5	X		X							X	X	X	X	
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Metals* 6010: B, Cd, Cr, Fe, Pb, Mn, Mo, Ca, Li (9)	Josh O'Brien	5-3-24	7:10	Jay Wilkes	5/3	7:10	
6020: Be, Co, Cu, Zn, As, Se, Sb, Ba, Tl (9) 7470 Hg	Jay Wilkes	5-3	9:45		5-3-24	9:45	1.7 Y N Y
Rad to Pace PA							0.6
							0.7

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Josh O'Brien

SIGNATURE of SAMPLER: Josh O'B

DATE Signed: 5-2-24

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

F-IN-Q-290-rev.26, 30Apr2024

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: RC 5-3-24 13:07

1. **Courier:** ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☐ Yes ☑ No
   (If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B (C) D E F G H
4. **Cooler Temperature(s):** (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

1.2/1.3	0.5/0.6	0.6/0.7	

5. **Packing Material:** ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **Was the PM notified of out of temp cooler?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C
8. **EZ Bottle Order?** ☐ Yes ☑ No
   If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.**			
Short Hold Time Analysis (48 hours or less)? Analysis:		✓	**Circle:** HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	✓		
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A ✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Custody Signatures Present?	✓		Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Containers Intact?:	✓		Headspace Wisconsin Sulfide?			✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Extra labels on Terracore Vials? (soils only)			Trip Blank Present?		✓	
			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																2		2	1										✓			
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

July 24, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 P2R4
Pace Project No.: 50372277

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 06, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372277

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372277

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50372277001	**AP-1R**	Water	05/05/24 15:40	05/06/24 10:00
50372277002	**AP-3**	Water	05/05/24 17:15	05/06/24 10:00

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372277

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50372277001	**AP-1R**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	NWB	3	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	1	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50372277002	**AP-3**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	NWB	3	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	1	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372277

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372277001	**AP-1R**					
EPA 9056	Chloride	119	mg/L	2.5	05/10/24 16:14	
EPA 9056	Sulfate	874	mg/L	25.0	05/10/24 16:30	
EPA 6010	Boron	10600	ug/L	100	05/10/24 23:48	
EPA 6010	Calcium	397000	ug/L	5000	05/11/24 00:24	
EPA 6010	Iron	10700	ug/L	100	05/10/24 23:48	
EPA 6010	Magnesium	59800	ug/L	1000	05/10/24 23:48	
EPA 6010	Molybdenum	13.0	ug/L	10.0	05/10/24 23:48	
EPA 6010	Potassium	1390	ug/L	1000	05/10/24 23:48	
EPA 6010	Sodium	58700	ug/L	1000	05/10/24 23:48	
EPA 6010	Boron, Dissolved	10800	ug/L	100	05/10/24 09:57	
EPA 6010	Molybdenum, Dissolved	13.7	ug/L	10.0	05/10/24 09:57	
EPA 6020	Arsenic	1.5	ug/L	1.0	05/08/24 09:02	
EPA 6020	Barium	61.7	ug/L	1.0	05/08/24 09:02	
EPA 6020	Manganese	9070	ug/L	100	05/08/24 06:59	
EPA 903.1	Radium-226	-0.202 ± 0.485 (1.02) C:NA T:91%	pCi/L		05/24/24 15:33	
EPA 904.0	Radium-228	0.741 ± 0.497 (0.949) C:66% T:82%	pCi/L		05/22/24 15:43	
Total Radium Calculation	Total Radium	0.741 ± 0.982 (1.97)	pCi/L		05/28/24 15:01	
SM 2320B	Alkalinity, Total as CaCO3	300	mg/L	10.0	05/07/24 20:37	
SM 2540C	Total Dissolved Solids	1730	mg/L	20.0	05/08/24 12:19	
SM 4500-H+B	pH at 25 Degrees C	7.0	Std. Units	0.10	05/09/24 12:01	H3
EPA 365.1	Phosphate as P04	2.2	mg/L	0.15	05/17/24 15:35	
SM 5310C	Dissolved Organic Carbon	3.9	mg/L	1.0	05/09/24 02:38	
50372277002	**AP-3**					
EPA 9056	Chloride	21.8	mg/L	0.25	05/10/24 17:20	
EPA 9056	Sulfate	289	mg/L	2.5	05/10/24 17:37	
EPA 6010	Boron	2030	ug/L	100	05/10/24 23:49	
EPA 6010	Calcium	216000	ug/L	2000	05/11/24 00:26	
EPA 6010	Magnesium	37900	ug/L	1000	05/10/24 23:49	
EPA 6010	Potassium	2100	ug/L	1000	05/10/24 23:49	
EPA 6010	Sodium	15800	ug/L	1000	05/10/24 23:49	
EPA 6010	Boron, Dissolved	2050	ug/L	100	05/10/24 09:59	
EPA 6020	Barium	28.2	ug/L	1.0	05/08/24 08:11	
EPA 6020	Manganese	73.0	ug/L	1.0	05/08/24 08:11	
EPA 903.1	Radium-226	-0.355 ± 0.546 (1.19) C:NA T:87%	pCi/L		05/24/24 15:33	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372277

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372277002	**AP-3**					
EPA 904.0	Radium-228	0.447 ± 0.454 (0.945) C:80% T:82%	pCi/L		05/22/24 15:41	
Total Radium Calculation	Total Radium	0.447 ± 1.000 (2.14)	pCi/L		05/28/24 15:01	
SM 2320B	Alkalinity, Total as CaCO3	367	mg/L	10.0	05/07/24 20:37	
SM 2540C	Total Dissolved Solids	752	mg/L	10.0	05/08/24 12:20	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	05/09/24 12:02	H3
EPA 353.2	Nitrogen, Nitrate	4.9	mg/L	0.10	05/06/24 22:51	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372277

Sample: AP-1R **Lab ID: 50372277001** Collected: 05/05/24 15:40 Received: 05/06/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**119**	mg/L	2.5	0.67	10		05/10/24 16:14	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/10/24 15:57	16984-48-8	
Sulfate	**874**	mg/L	25.0	19.0	100		05/10/24 16:30	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**10600**	ug/L	100	6.2	1	05/09/24 08:07	05/10/24 23:48	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/09/24 08:07	05/10/24 23:48	7440-43-9	
Calcium	**397000**	ug/L	5000	338	5	05/09/24 08:07	05/11/24 00:24	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/09/24 08:07	05/10/24 23:48	7440-47-3	
Iron	**10700**	ug/L	100	30.0	1	05/09/24 08:07	05/10/24 23:48	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/09/24 08:07	05/10/24 23:48	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/09/24 08:07	05/10/24 23:48	7439-93-2	
Magnesium	**59800**	ug/L	1000	33.6	1	05/09/24 08:07	05/10/24 23:48	7439-95-4	
Molybdenum	**13.0**	ug/L	10.0	0.78	1	05/09/24 08:07	05/10/24 23:48	7439-98-7	
Potassium	**1390**	ug/L	1000	97.8	1	05/09/24 08:07	05/10/24 23:48	7440-09-7	
Sodium	**58700**	ug/L	1000	54.8	1	05/09/24 08:07	05/10/24 23:48	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**10800**	ug/L	100	11.4	1	05/08/24 20:22	05/10/24 09:57	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	05/08/24 20:22	05/10/24 09:57	7439-93-2	
Molybdenum, Dissolved	**13.7**	ug/L	10.0	1.1	1	05/08/24 20:22	05/10/24 09:57	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	05/07/24 15:30	05/08/24 09:02	7440-36-0	
Arsenic	**1.5**	ug/L	1.0	0.10	1	05/07/24 15:30	05/08/24 09:02	7440-38-2	
Barium	**61.7**	ug/L	1.0	0.062	1	05/07/24 15:30	05/08/24 09:02	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	05/07/24 15:30	05/08/24 09:02	7440-41-7	
Cobalt	ND	ug/L	1.0	0.060	1	05/07/24 15:30	05/08/24 09:02	7440-48-4	
Manganese	**9070**	ug/L	100	14.8	100	05/07/24 15:30	05/08/24 06:59	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	05/07/24 15:30	05/08/24 09:02	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	05/07/24 15:30	05/08/24 09:02	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/08/24 07:45	05/08/24 17:14	7429-90-5	CU
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/13/24 18:48	05/14/24 17:34	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372277

Sample: AP-1R **Lab ID: 50372277001** Collected: 05/05/24 15:40 Received: 05/06/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**300**	mg/L	10.0	10.0	1		05/07/24 20:37		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1730**	mg/L	20.0	20.0	1		05/08/24 12:19		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.0**	Std. Units	0.10	0.10	1		05/09/24 12:01		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/07/24 10:32	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/06/24 22:49	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**2.2**	mg/L	0.15	0.13	1	05/14/24 11:00	05/17/24 15:35		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.9**	mg/L	1.0	0.25	1		05/09/24 02:38		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372277

Sample: AP-3 **Lab ID: 50372277002** Collected: 05/05/24 17:15 Received: 05/06/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**21.8**	mg/L	0.25	0.067	1		05/10/24 17:20	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/10/24 17:20	16984-48-8	
Sulfate	**289**	mg/L	2.5	1.9	10		05/10/24 17:37	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**2030**	ug/L	100	6.2	1	05/09/24 08:07	05/10/24 23:49	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/09/24 08:07	05/10/24 23:49	7440-43-9	
Calcium	**216000**	ug/L	2000	135	2	05/09/24 08:07	05/11/24 00:26	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/09/24 08:07	05/10/24 23:49	7440-47-3	
Iron	ND	ug/L	100	30.0	1	05/09/24 08:07	05/10/24 23:49	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/09/24 08:07	05/10/24 23:49	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/09/24 08:07	05/10/24 23:49	7439-93-2	
Magnesium	**37900**	ug/L	1000	33.6	1	05/09/24 08:07	05/10/24 23:49	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	05/09/24 08:07	05/10/24 23:49	7439-98-7	
Potassium	**2100**	ug/L	1000	97.8	1	05/09/24 08:07	05/10/24 23:49	7440-09-7	
Sodium	**15800**	ug/L	1000	54.8	1	05/09/24 08:07	05/10/24 23:49	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**2050**	ug/L	100	11.4	1	05/08/24 20:22	05/10/24 09:59	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	05/08/24 20:22	05/10/24 09:59	7439-93-2	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	05/08/24 20:22	05/10/24 09:59	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	05/07/24 15:30	05/08/24 08:11	7440-36-0	
Arsenic	ND	ug/L	1.0	0.10	1	05/07/24 15:30	05/08/24 08:11	7440-38-2	
Barium	**28.2**	ug/L	1.0	0.062	1	05/07/24 15:30	05/08/24 08:11	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	05/07/24 15:30	05/08/24 08:11	7440-41-7	
Cobalt	ND	ug/L	1.0	0.060	1	05/07/24 15:30	05/08/24 08:11	7440-48-4	
Manganese	**73.0**	ug/L	1.0	0.15	1	05/07/24 15:30	05/08/24 08:11	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	05/07/24 15:30	05/08/24 08:11	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	05/07/24 15:30	05/08/24 08:11	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/08/24 07:45	05/08/24 17:18	7429-90-5	CU
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/13/24 18:48	05/14/24 17:37	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372277

Sample: AP-3 **Lab ID: 50372277002** Collected: 05/05/24 17:15 Received: 05/06/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**367**	mg/L	10.0	10.0	1		05/07/24 20:37		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**752**	mg/L	10.0	10.0	1		05/08/24 12:20		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		05/09/24 12:02		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/07/24 10:32	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**4.9**	mg/L	0.10	0.013	1		05/06/24 22:51	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	05/14/24 11:00	05/17/24 15:36		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.25	1		05/09/24 03:04		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372277

QC Batch: 788743
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372277001, 50372277002

METHOD BLANK: 3608176 Matrix: Water
Associated Lab Samples: 50372277001, 50372277002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/10/24 11:01	
Fluoride	mg/L	ND	0.10	0.017	05/10/24 11:01	
Sulfate	mg/L	ND	0.25	0.19	05/10/24 11:01	

LABORATORY CONTROL SAMPLE: 3608177

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	93	80-120	
Fluoride	mg/L	1	0.97	97	80-120	
Sulfate	mg/L	5	4.9	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3608178 3608179

Parameter	Units	50372217001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	66.2	25	25	89.5	89.1	93	92	80-120	0	15	
Fluoride	mg/L	2.9	1	1	3.9	3.9	102	101	80-120	0	15	
Sulfate	mg/L	64.4	50	50	111	111	93	93	80-120	0	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3608180 3608181

Parameter	Units	50372278001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	24.8	2.5	2.5	27.4	27.5	104	108	80-120	0	15	E
Fluoride	mg/L	ND	1	1	1.1	1.1	100	101	80-120	1	15	
Sulfate	mg/L	290	50	50	336	334	92	89	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372277

QC Batch: 789230
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372277001, 50372277002

METHOD BLANK: 3610804 Matrix: Water
Associated Lab Samples: 50372277001, 50372277002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	05/14/24 17:27	

LABORATORY CONTROL SAMPLE: 3610805

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.8	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3610806 3610807

Parameter	Units	50372278001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.6	4.8	91	96	75-125	6	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372277

QC Batch: 788584
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372277001, 50372277002

METHOD BLANK: 3607506 Matrix: Water
Associated Lab Samples: 50372277001, 50372277002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	05/10/24 23:13	
Cadmium	ug/L	ND	2.0	0.60	05/10/24 23:13	
Calcium	ug/L	ND	1000	67.7	05/10/24 23:13	
Chromium	ug/L	ND	10.0	0.42	05/10/24 23:13	
Iron	ug/L	ND	100	30.0	05/10/24 23:13	
Lead	ug/L	ND	10.0	2.5	05/10/24 23:13	
Lithium	ug/L	ND	20.0	6.8	05/10/24 23:13	
Magnesium	ug/L	ND	1000	33.6	05/10/24 23:13	
Molybdenum	ug/L	ND	10.0	0.78	05/10/24 23:13	
Potassium	ug/L	ND	1000	97.8	05/10/24 23:13	
Sodium	ug/L	ND	1000	54.8	05/10/24 23:13	

LABORATORY CONTROL SAMPLE: 3607507

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	973	97	80-120	
Cadmium	ug/L	1000	926	93	80-120	
Calcium	ug/L	10000	10300	103	80-120	
Chromium	ug/L	1000	1010	101	80-120	
Iron	ug/L	10000	9910	99	80-120	
Lead	ug/L	1000	913	91	80-120	
Lithium	ug/L	1000	1010	101	80-120	
Magnesium	ug/L	10000	9870	99	80-120	
Molybdenum	ug/L	1000	980	98	80-120	
Potassium	ug/L	10000	9910	99	80-120	
Sodium	ug/L	10000	9860	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3607508 3607509

Parameter	Units	50372217001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	1100	1000	1000	2080	2040	99	94	75-125	2	20	
Cadmium	ug/L	ND	1000	1000	949	927	95	93	75-125	2	20	
Calcium	ug/L	15800	10000	10000	26000	25200	102	93	75-125	3	20	
Chromium	ug/L	ND	1000	1000	1020	993	102	99	75-125	2	20	
Iron	ug/L	280	10000	10000	10400	10100	101	98	75-125	2	20	
Lead	ug/L	ND	1000	1000	905	888	90	89	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372277

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3607508 3607509

Parameter	Units	50372217001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	57.0	1000	1000	1070	1040	101	99	75-125	2	20	
Magnesium	ug/L	4490	10000	10000	14300	13900	98	94	75-125	3	20	
Molybdenum	ug/L	33.7	1000	1000	1040	1010	100	98	75-125	2	20	
Potassium	ug/L	3710	10000	10000	13900	13500	102	97	75-125	3	20	
Sodium	ug/L	252000	10000	10000	261000	248000	88	-43	75-125	5	20	P6

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3607510 3607511

Parameter	Units	50372278001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	600	1000	1000	1570	1600	97	100	75-125	2	20	
Cadmium	ug/L	ND	1000	1000	948	956	95	96	75-125	1	20	
Calcium	ug/L	249000	10000	10000	257000	244000	75	-55	75-125	5	20	P6
Chromium	ug/L	ND	1000	1000	999	1010	100	101	75-125	1	20	
Iron	ug/L	7160	10000	10000	16600	16700	94	96	75-125	1	20	
Lead	ug/L	ND	1000	1000	885	898	88	90	75-125	2	20	
Lithium	ug/L	ND	1000	1000	1030	1020	102	101	75-125	1	20	
Magnesium	ug/L	38400	10000	10000	46500	46800	81	84	75-125	1	20	
Molybdenum	ug/L	ND	1000	1000	994	1010	99	101	75-125	1	20	
Potassium	ug/L	2310	10000	10000	12600	12300	103	100	75-125	2	20	
Sodium	ug/L	21000	10000	10000	30600	30300	96	93	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372277

QC Batch: 788557
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372277001, 50372277002

METHOD BLANK: 3607179 Matrix: Water
Associated Lab Samples: 50372277001, 50372277002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	11.4	05/10/24 09:07	
Lithium, Dissolved	ug/L	ND	20.0	5.1	05/10/24 09:07	
Molybdenum, Dissolved	ug/L	ND	10.0	1.1	05/10/24 09:07	

LABORATORY CONTROL SAMPLE: 3607180

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	981	98	80-120	
Lithium, Dissolved	ug/L	1000	1020	102	80-120	
Molybdenum, Dissolved	ug/L	1000	1010	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3607181 3607182

Parameter	Units	50372217001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	1100	1000	1000	2020	2110	92	101	75-125	4	20	
Lithium, Dissolved	ug/L	39.1	1000	1000	988	1020	95	98	75-125	3	20	
Molybdenum, Dissolved	ug/L	22.0	1000	1000	980	1020	96	100	75-125	4	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372277

QC Batch: 788390
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372277001, 50372277002

METHOD BLANK: 3606566 Matrix: Water
Associated Lab Samples: 50372277001, 50372277002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.26	05/08/24 06:31	
Arsenic	ug/L	ND	1.0	0.10	05/08/24 06:31	
Barium	ug/L	ND	1.0	0.062	05/08/24 06:31	
Beryllium	ug/L	ND	0.20	0.020	05/08/24 06:31	
Cobalt	ug/L	ND	1.0	0.060	05/08/24 06:31	
Manganese	ug/L	ND	1.0	0.15	05/08/24 06:31	
Selenium	ug/L	ND	1.0	0.36	05/08/24 06:31	
Thallium	ug/L	ND	1.0	0.079	05/08/24 06:31	

LABORATORY CONTROL SAMPLE: 3606567

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.4	106	80-120	
Arsenic	ug/L	40	40.1	100	80-120	
Barium	ug/L	40	39.3	98	80-120	
Beryllium	ug/L	40	38.7	97	80-120	
Cobalt	ug/L	40	41.1	103	80-120	
Manganese	ug/L	40	41.5	104	80-120	
Selenium	ug/L	40	40.4	101	80-120	
Thallium	ug/L	40	39.4	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3606568 3606569

Parameter	Units	50372217001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	43.4	43.1	108	107	75-125	1	20	
Arsenic	ug/L	1.2	40	40	41.9	41.4	102	100	75-125	1	20	
Barium	ug/L	226	40	40	253	258	69	80	75-125	2	20	P6
Beryllium	ug/L	ND	40	40	40.4	40.8	101	102	75-125	1	20	
Cobalt	ug/L	ND	40	40	38.3	38.5	96	96	75-125	0	20	
Manganese	ug/L	25.4	40	40	63.5	63.8	95	96	75-125	1	20	
Selenium	ug/L	ND	40	40	39.6	39.7	99	99	75-125	0	20	
Thallium	ug/L	ND	40	40	39.3	39.1	98	98	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372277

QC Batch: 788588
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372277001, 50372277002

METHOD BLANK: 3607528 Matrix: Water
Associated Lab Samples: 50372277001, 50372277002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.3	05/08/24 16:04	

LABORATORY CONTROL SAMPLE: 3607529

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	395	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3607530 3607531

Parameter	Units	50372217001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	410	419	101	103	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372277

QC Batch: 788610
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372277001, 50372277002

METHOD BLANK: 3607644 Matrix: Water
Associated Lab Samples: 50372277001, 50372277002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/07/24 20:37	

LABORATORY CONTROL SAMPLE: 3607645

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.2	100	90-110	

SAMPLE DUPLICATE: 3607646

Parameter	Units	50372250004 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	184	187	1	20	

SAMPLE DUPLICATE: 3607647

Parameter	Units	50372278001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	497	505	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372277

QC Batch: 788654
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372277001, 50372277002

METHOD BLANK: 3607822 Matrix: Water
Associated Lab Samples: 50372277001, 50372277002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/08/24 12:12	

LABORATORY CONTROL SAMPLE: 3607823

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	303	101	80-120	

SAMPLE DUPLICATE: 3607824

Parameter	Units	50372217001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	641	653	2	10	

SAMPLE DUPLICATE: 3607825

Parameter	Units	50372252004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	297	294	1	10	

SAMPLE DUPLICATE: 3607826

Parameter	Units	50372278001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	864	852	1	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372277

QC Batch: 788959
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372277001, 50372277002

SAMPLE DUPLICATE: 3609292

Parameter	Units	50372278001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.0	0	2	H3

SAMPLE DUPLICATE: 3609293

Parameter	Units	50372299001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.8	7.9	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372277

QC Batch: 788465
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372277001, 50372277002

METHOD BLANK: 3606835 Matrix: Water
Associated Lab Samples: 50372277001, 50372277002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/07/24 10:32	

LABORATORY CONTROL SAMPLE: 3606836

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.54	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3606837 3606838

Parameter	Units	50372278001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.53	0.53	106	105	90-110	1	20	

MATRIX SPIKE SAMPLE: 3606839

Parameter	Units	50372298002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.46	91	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372277

QC Batch: 788408
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372277001, 50372277002

METHOD BLANK: 3606686 Matrix: Water
Associated Lab Samples: 50372277001, 50372277002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/06/24 22:17	

LABORATORY CONTROL SAMPLE: 3606687

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3606688 3606689

Parameter	Units	50372250004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	3.0	1	1	3.8	3.8	84	85	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3606690 3606691

Parameter	Units	50372278001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	0.81	0.81	81	81	90-110	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372277

QC Batch: 789737
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372277001, 50372277002

METHOD BLANK: 3613501 Matrix: Water
Associated Lab Samples: 50372277001, 50372277002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	05/17/24 15:23	

LABORATORY CONTROL SAMPLE: 3613502

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3613503 3613504

Parameter	Units	50372217001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.6	1.6				0		

MATRIX SPIKE SAMPLE: 3613505

Parameter	Units	50372250001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	0.71		2.1			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372277

QC Batch: 788764
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372277001, 50372277002

METHOD BLANK: 3608259 Matrix: Water
Associated Lab Samples: 50372277001, 50372277002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	05/08/24 17:10	

LABORATORY CONTROL SAMPLE: 3608260

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3608261 3608262

Parameter	Units	50372217001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.0	10	10	10.3	10.5	93	95	80-120	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3608263 3608264

Parameter	Units	50372278001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	3.7	10	10	12.9	13.3	93	96	80-120	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372277

Sample: AP-1R **Lab ID: 50372277001** Collected: 05/05/24 15:40 Received: 05/06/24 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.202 ± 0.485 (1.02) C:NA T:91%**	pCi/L	05/24/24 15:33	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.741 ± 0.497 (0.949) C:66% T:82%**	pCi/L	05/22/24 15:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.741 ± 0.982 (1.97)**	pCi/L	05/28/24 15:01	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372277

Sample: AP-3 **Lab ID: 50372277002** Collected: 05/05/24 17:15 Received: 05/06/24 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.355 ± 0.546 (1.19) C:NA T:87%**	pCi/L	05/24/24 15:33	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.447 ± 0.454 (0.945) C:80% T:82%**	pCi/L	05/22/24 15:41	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.447 ± 1.000 (2.14)**	pCi/L	05/28/24 15:01	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372277

QC Batch: 667225
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372277001, 50372277002

METHOD BLANK: 3248761 Matrix: Water
Associated Lab Samples: 50372277001, 50372277002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.244 ± 0.253 (0.377) C:NA T:95%	pCi/L	05/24/24 15:19	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372277

QC Batch: 667228
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372277001, 50372277002

METHOD BLANK: 3248767 Matrix: Water
Associated Lab Samples: 50372277001, 50372277002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.534 ± 0.349 (0.645) C:78% T:84%	pCi/L	05/22/24 15:40	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372277

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

CU	The continuing calibration for this analyte is above laboratory acceptance limits. Analyte was not detected above the reporting limit in any of the associated samples.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372277

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50372277001	**AP-1R**	EPA 9056	788743		
50372277002	**AP-3**	EPA 9056	788743		
50372277001	**AP-1R**	EPA 3010	788584	EPA 6010	789385
50372277002	**AP-3**	EPA 3010	788584	EPA 6010	789385
50372277001	**AP-1R**	EPA 3010	788557	EPA 6010	789183
50372277002	**AP-3**	EPA 3010	788557	EPA 6010	789183
50372277001	**AP-1R**	EPA 200.2	788390	EPA 6020	788630
50372277002	**AP-3**	EPA 200.2	788390	EPA 6020	788630
50372277001	**AP-1R**	EPA 200.2	788588	EPA 6020	788786
50372277002	**AP-3**	EPA 200.2	788588	EPA 6020	788786
50372277001	**AP-1R**	EPA 7470	789230	EPA 7470	789894
50372277002	**AP-3**	EPA 7470	789230	EPA 7470	789894
50372277001	**AP-1R**	EPA 903.1	667225		
50372277002	**AP-3**	EPA 903.1	667225		
50372277001	**AP-1R**	EPA 904.0	667228		
50372277002	**AP-3**	EPA 904.0	667228		
50372277001	**AP-1R**	Total Radium Calculation	671739		
50372277002	**AP-3**	Total Radium Calculation	671739		
50372277001	**AP-1R**	SM 2320B	788610		
50372277002	**AP-3**	SM 2320B	788610		
50372277001	**AP-1R**	SM 2540C	788654		
50372277002	**AP-3**	SM 2540C	788654		
50372277001	**AP-1R**	SM 4500-H+B	788959		
50372277002	**AP-3**	SM 4500-H+B	788959		
50372277001	**AP-1R**	SM 4500-S2-D	788465		
50372277002	**AP-3**	SM 4500-S2-D	788465		
50372277001	**AP-1R**	EPA 353.2	788408		
50372277002	**AP-3**	EPA 353.2	788408		
50372277001	**AP-1R**	EPA 365.1	789737	EPA 365.1	790666
50372277002	**AP-3**	EPA 365.1	789737	EPA 365.1	790666
50372277001	**AP-1R**	SM 5310C	788764		
50372277002	**AP-3**	SM 5310C	788764		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request Docur

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be c

WO# : 50372277

50372277

Section A
Required Client Information:

Company:	Atlas Indianapolis
Address:	7988 Centerpoint Drive Suite 100
	Indianapolis, IN 46256
Email:	mark.breting@oneatlas.com
Phone:	(317)579-4082 Fax:
Requested Due Date:	

Section B
Required Project Information:

Report To:	Mark Breting
Copy To:	
Purchase Order #:	
Project Name:	Petersburg May 2024 P2R4
Project #:	

Section C
Invoice Information:

Attention:	Accounts Payable - Paula Sedam
Company Name:	Atlas Indianapolis
Address:	
Pace Quote:	
Pace Project Manager:	Will Statz
Pace Profile #:	10498/59

Regulatory Agency

State / Location
IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total Metals 6010/6020/7470	Diss. Metals 6010/6020	DOC by 5310	Alkalinity/pH	Cl, F, SO4 by 9056	TDS by 2540C	Nitrate by 353.2	Phosphate by 365.1	Sulfide by 4500	Rad 226/228 + Sum to PA	Residual Chlorine (Y/N)	
1	AP-1R																											
2	AP-3					5/5/24	1340		10		X	X	X		X				X	X	X	X	X	X	X	X	X	001
3						5/5/24	1715		10		X	X	X		X				X	X	X	X	X	X	X	X	X	002
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS

Metals* 6010: B, Cd, Cr, Fe, Pb, Mo, Ca, Mg, Na, K, Li (11)
020: Be, Mn, Co, As, Se, Sb, Ba, Tl (8). 7470: Hg (1)
ss 6010: B, Mo, Li (3). Diss 6020: Al, Mn (2)

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Josh O'B	5-6-24	7:20	Jay Williams	5/6	7:20
Jay Williams	5-6-24	10:00		5-6-24	10:00

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Josh O'Brian

SIGNATURE of SAMPLER: Josh O'B

DATE Signed: 5-5-24

SAMPLE CONDITIONS

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
2.0			
1.2	y	N	y
0.9			
0.7			

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: RC 5-6-24 11:32

1. **Courier:** ☐FED EX | UPS ☑CLIENT ☐PACE ☐NOW/JETT | OTHER _____

2. **Custody Seal on Cooler/Box Present:** | | Yes ☑ No

(If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 (A) B C D E F G H

4. **Cooler Temperature(s):** (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

2012.0	12/1.2	0.9/0.9	0.7/0.7

5. **Packing Material:** | ✓ | Bubble Wrap | ✓ | Bubble Bags | | None | | Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **Was the PM notified of out of temp cooler?:** | | Yes ☐ No
Cooler temp should be above freezing to 6°C

8. **EZ Bottle Order?** | Yes ✓ | No

If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis: NO3	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 1320			Present	Absent	N/A ✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			
			Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

										AMBER GLASS							PLASTIC									OTHER								
			MeOH (only)																											Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
			SBS																											Red	Yellow	Green	Black
			DI			VOA VIAL HS >6mm									AG3SF																		
COC Line Item	WGFU	WGKU BG1U	R	DG9H VG9H			VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S		AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
1														1			2	1	2	1	1	1		1					WT	✓	✓		✓
2														1			1	1	1	1	1	1		1					1	1	1		1
3																																	
4																																	
5																																	
6																																	
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

July 24, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 07, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis
7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50372337001	**AP-3A**	Water	05/06/24 10:40	05/07/24 10:00
50372337002	**DUP4**	Water	05/06/24 08:00	05/07/24 10:00
50372337003	**AP-4A**	Water	05/06/24 12:30	05/07/24 10:00
50372337004	**AP-4I**	Water	05/06/24 13:55	05/07/24 10:00

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50372337001	**AP-3A**	EPA 9056	ADM	3	PASI-I
		EPA 6010	NWB	11	PASI-I
		EPA 6010	NWB	3	PASI-I
		EPA 6020	CAW	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	1	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50372337002	**DUP4**	EPA 9056	ADM	3	PASI-I
		EPA 6010	NWB	11	PASI-I
		EPA 6010	NWB	3	PASI-I
		EPA 6020	CAW	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	1	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50372337003	**AP-4A**	EPA 9056	ADM	3	PASI-I
		EPA 6010	NWB	11	PASI-I
		EPA 6010	NWB	3	PASI-I
		EPA 6020	CAW	8	PASI-I
		EPA 6020	CAW	1	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	1	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50372337004	**AP-4I**	EPA 9056	ADM	3	PASI-I
		EPA 6010	NWB	11	PASI-I
		EPA 6010	NWB	3	PASI-I
		EPA 6020	CAW	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	1	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372337001	**AP-3A**					
EPA 9056	Chloride	194	mg/L	2.5	05/11/24 03:44	
EPA 9056	Sulfate	1710	mg/L	25.0	05/11/24 04:01	
EPA 6010	Boron	28900	ug/L	100	05/10/24 10:05	
EPA 6010	Calcium	705000	ug/L	5000	05/10/24 12:00	
EPA 6010	Iron	6830	ug/L	100	05/10/24 10:05	
EPA 6010	Magnesium	22800	ug/L	1000	05/10/24 10:05	
EPA 6010	Molybdenum	517	ug/L	10.0	05/10/24 10:05	
EPA 6010	Potassium	14800	ug/L	1000	05/10/24 10:05	
EPA 6010	Sodium	48500	ug/L	1000	05/10/24 10:05	
EPA 6010	Boron, Dissolved	30900	ug/L	100	05/16/24 13:25	
EPA 6010	Molybdenum, Dissolved	558	ug/L	10.0	05/16/24 10:27	
EPA 6020	Arsenic	1.6	ug/L	1.0	05/08/24 20:43	
EPA 6020	Barium	32.7	ug/L	1.0	05/08/24 20:43	
EPA 6020	Manganese	2740	ug/L	20.0	05/09/24 19:51	
EPA 903.1	Radium-226	0.196 ± 0.360 (0.643) C:NA T:94%	pCi/L		05/28/24 15:30	
EPA 904.0	Radium-228	0.833 ± 0.406 (0.674) C:82% T:84%	pCi/L		05/22/24 14:16	
Total Radium Calculation	Total Radium	1.03 ± 0.766 (1.32)	pCi/L		05/30/24 10:25	
SM 2320B	Alkalinity, Total as CaCO3	60.0	mg/L	10.0	05/07/24 20:55	
SM 2540C	Total Dissolved Solids	2730	mg/L	40.0	05/09/24 11:53	
SM 4500-H+B	pH at 25 Degrees C	5.7	Std. Units	0.10	05/09/24 15:41	H3
EPA 365.1	Phosphate as P04	0.15	mg/L	0.15	05/17/24 18:12	
SM 5310C	Dissolved Organic Carbon	3.6	mg/L	1.0	05/13/24 18:40	
50372337002	**DUP4**					
EPA 9056	Chloride	189	mg/L	2.5	05/11/24 04:34	
EPA 9056	Sulfate	1350	mg/L	25.0	05/11/24 04:51	
EPA 6010	Boron	29100	ug/L	100	05/10/24 10:06	
EPA 6010	Calcium	717000	ug/L	5000	05/10/24 12:02	
EPA 6010	Iron	7230	ug/L	100	05/10/24 10:06	
EPA 6010	Magnesium	22900	ug/L	1000	05/10/24 10:06	
EPA 6010	Molybdenum	520	ug/L	10.0	05/10/24 10:06	
EPA 6010	Potassium	14700	ug/L	1000	05/10/24 10:06	
EPA 6010	Sodium	48500	ug/L	1000	05/10/24 10:06	
EPA 6010	Boron, Dissolved	30300	ug/L	100	05/16/24 13:27	
EPA 6010	Molybdenum, Dissolved	559	ug/L	10.0	05/16/24 10:29	
EPA 6020	Arsenic	1.7	ug/L	1.0	05/08/24 20:47	
EPA 6020	Barium	33.7	ug/L	1.0	05/08/24 20:47	
EPA 6020	Manganese	2710	ug/L	20.0	05/09/24 19:55	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372337002	**DUP4**					
EPA 903.1	Radium-226	0.534 ± 0.569 (0.922) C:NA T:95%	pCi/L		05/28/24 15:30	
EPA 904.0	Radium-228	0.997 ± 0.433 (0.696) C:86% T:81%	pCi/L		05/22/24 14:16	
Total Radium Calculation	Total Radium	1.53 ± 1.00 (1.62)	pCi/L		05/30/24 10:25	
SM 2320B	Alkalinity, Total as CaCO3	59.6	mg/L	10.0	05/07/24 20:55	
SM 2540C	Total Dissolved Solids	2740	mg/L	40.0	05/09/24 11:53	
SM 4500-H+B	pH at 25 Degrees C	6.1	Std. Units	0.10	05/09/24 15:42	H3
EPA 365.1	Phosphate as P04	0.17	mg/L	0.15	05/17/24 18:13	
SM 5310C	Dissolved Organic Carbon	2.7	mg/L	1.0	05/13/24 19:18	
50372337003	**AP-4A**					
EPA 9056	Chloride	148	mg/L	2.5	05/11/24 05:24	
EPA 9056	Sulfate	1720	mg/L	25.0	05/11/24 05:40	
EPA 6010	Boron	22200	ug/L	100	05/10/24 10:12	
EPA 6010	Calcium	651000	ug/L	5000	05/10/24 12:04	
EPA 6010	Iron	6820	ug/L	100	05/10/24 10:12	
EPA 6010	Lithium	35.2	ug/L	20.0	05/10/24 10:12	
EPA 6010	Magnesium	73800	ug/L	1000	05/10/24 10:12	
EPA 6010	Molybdenum	215	ug/L	10.0	05/10/24 10:12	
EPA 6010	Potassium	17100	ug/L	1000	05/10/24 10:12	
EPA 6010	Sodium	50200	ug/L	1000	05/10/24 10:12	
EPA 6010	Boron, Dissolved	23300	ug/L	100	05/16/24 13:29	
EPA 6010	Lithium, Dissolved	36.7	ug/L	20.0	05/16/24 10:34	
EPA 6010	Molybdenum, Dissolved	230	ug/L	10.0	05/16/24 10:34	
EPA 6020	Barium	28.3	ug/L	1.0	05/08/24 20:58	
EPA 6020	Manganese	3840	ug/L	30.0	05/09/24 19:58	
EPA 903.1	Radium-226	0.343 ± 0.349 (0.528) C:NA T:91%	pCi/L		05/28/24 15:30	
EPA 904.0	Radium-228	1.34 ± 0.513 (0.783) C:83% T:84%	pCi/L		05/22/24 14:16	
Total Radium Calculation	Total Radium	1.68 ± 0.862 (1.31)	pCi/L		05/30/24 10:25	
SM 2320B	Alkalinity, Total as CaCO3	131	mg/L	10.0	05/07/24 20:55	
SM 2540C	Total Dissolved Solids	2650	mg/L	40.0	05/09/24 11:53	
SM 4500-H+B	pH at 25 Degrees C	6.3	Std. Units	0.10	05/09/24 15:43	H3
EPA 365.1	Phosphate as P04	0.19	mg/L	0.15	05/17/24 18:13	
SM 5310C	Dissolved Organic Carbon	2.4	mg/L	1.0	05/13/24 19:30	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372337004	**AP-4I**					
EPA 9056	Chloride	110	mg/L	2.5	05/11/24 06:46	
EPA 9056	Fluoride	0.18	mg/L	0.10	05/11/24 06:29	
EPA 9056	Sulfate	1690	mg/L	25.0	05/11/24 07:02	
EPA 6010	Boron	11900	ug/L	100	05/10/24 10:14	
EPA 6010	Calcium	729000	ug/L	5000	05/10/24 12:05	
EPA 6010	Iron	1310	ug/L	100	05/10/24 10:14	
EPA 6010	Magnesium	36500	ug/L	1000	05/10/24 10:14	
EPA 6010	Molybdenum	83.3	ug/L	10.0	05/10/24 10:14	
EPA 6010	Potassium	6390	ug/L	1000	05/10/24 10:14	
EPA 6010	Sodium	31700	ug/L	1000	05/10/24 10:14	
EPA 6010	Boron, Dissolved	12400	ug/L	100	05/16/24 13:31	
EPA 6010	Molybdenum, Dissolved	89.0	ug/L	10.0	05/16/24 10:36	
EPA 6020	Barium	24.5	ug/L	1.0	05/08/24 21:02	
EPA 6020	Cobalt	2.1	ug/L	1.0	05/09/24 23:46	
EPA 6020	Manganese	4870	ug/L	40.0	05/09/24 20:02	
EPA 903.1	Radium-226	0.260 ± 0.569 (1.01) C:NA T:93%	pCi/L		05/28/24 15:30	
EPA 904.0	Radium-228	0.637 ± 0.380 (0.689) C:84% T:85%	pCi/L		05/22/24 14:17	
Total Radium Calculation	Total Radium	0.897 ± 0.949 (1.70)	pCi/L		05/30/24 10:25	
SM 2320B	Alkalinity, Total as CaCO3	137	mg/L	10.0	05/07/24 20:55	
SM 2540C	Total Dissolved Solids	2560	mg/L	40.0	05/09/24 11:53	
SM 4500-H+B	pH at 25 Degrees C	6.4	Std. Units	0.10	05/09/24 15:44	H3
SM 5310C	Dissolved Organic Carbon	2.2	mg/L	1.0	05/13/24 19:41	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

Sample: AP-3A **Lab ID: 50372337001** Collected: 05/06/24 10:40 Received: 05/07/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**194**	mg/L	2.5	0.67	10		05/11/24 03:44	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/11/24 03:27	16984-48-8	
Sulfate	**1710**	mg/L	25.0	19.0	100		05/11/24 04:01	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**28900**	ug/L	100	11.4	1	05/09/24 15:46	05/10/24 10:05	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	05/09/24 15:46	05/10/24 10:05	7440-43-9	
Calcium	**705000**	ug/L	5000	284	5	05/09/24 15:46	05/10/24 12:00	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	05/09/24 15:46	05/10/24 10:05	7440-47-3	
Iron	**6830**	ug/L	100	18.1	1	05/09/24 15:46	05/10/24 10:05	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	05/09/24 15:46	05/10/24 10:05	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	05/09/24 15:46	05/10/24 10:05	7439-93-2	
Magnesium	**22800**	ug/L	1000	32.8	1	05/09/24 15:46	05/10/24 10:05	7439-95-4	
Molybdenum	**517**	ug/L	10.0	1.1	1	05/09/24 15:46	05/10/24 10:05	7439-98-7	
Potassium	**14800**	ug/L	1000	120	1	05/09/24 15:46	05/10/24 10:05	7440-09-7	
Sodium	**48500**	ug/L	1000	48.2	1	05/09/24 15:46	05/10/24 10:05	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**30900**	ug/L	100	11.4	1	05/15/24 20:27	05/16/24 13:25	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	05/15/24 20:27	05/16/24 10:27	7439-93-2	
Molybdenum, Dissolved	**558**	ug/L	10.0	1.1	1	05/15/24 20:27	05/16/24 10:27	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.49	1	05/08/24 07:45	05/08/24 20:43	7440-36-0	
Arsenic	**1.6**	ug/L	1.0	0.075	1	05/08/24 07:45	05/08/24 20:43	7440-38-2	
Barium	**32.7**	ug/L	1.0	0.077	1	05/08/24 07:45	05/08/24 20:43	7440-39-3	
Beryllium	ND	ug/L	0.20	0.035	1	05/08/24 07:45	05/08/24 20:43	7440-41-7	
Cobalt	ND	ug/L	1.0	0.046	1	05/08/24 07:45	05/09/24 23:12	7440-48-4	
Manganese	**2740**	ug/L	20.0	3.4	20	05/08/24 07:45	05/09/24 19:51	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	05/08/24 07:45	05/08/24 20:43	7782-49-2	
Thallium	ND	ug/L	1.0	0.040	1	05/08/24 07:45	05/08/24 20:43	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/08/24 07:45	05/08/24 17:40	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/17/24 09:53	05/19/24 16:41	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

Sample: AP-3A **Lab ID: 50372337001** Collected: 05/06/24 10:40 Received: 05/07/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**60.0**	mg/L	10.0	10.0	1		05/07/24 20:55		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2730**	mg/L	40.0	40.0	1		05/09/24 11:53		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**5.7**	Std. Units	0.10	0.10	1		05/09/24 15:41		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/07/24 14:41	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/07/24 21:59	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.15**	mg/L	0.15	0.13	1	05/15/24 11:15	05/17/24 18:12		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.6**	mg/L	1.0	0.25	1		05/13/24 18:40		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

Sample: DUP4 **Lab ID: 50372337002** Collected: 05/06/24 08:00 Received: 05/07/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**189**	mg/L	2.5	0.67	10		05/11/24 04:34	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/11/24 04:18	16984-48-8	
Sulfate	**1350**	mg/L	25.0	19.0	100		05/11/24 04:51	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**29100**	ug/L	100	11.4	1	05/09/24 15:46	05/10/24 10:06	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	05/09/24 15:46	05/10/24 10:06	7440-43-9	
Calcium	**717000**	ug/L	5000	284	5	05/09/24 15:46	05/10/24 12:02	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	05/09/24 15:46	05/10/24 10:06	7440-47-3	
Iron	**7230**	ug/L	100	18.1	1	05/09/24 15:46	05/10/24 10:06	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	05/09/24 15:46	05/10/24 10:06	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	05/09/24 15:46	05/10/24 10:06	7439-93-2	
Magnesium	**22900**	ug/L	1000	32.8	1	05/09/24 15:46	05/10/24 10:06	7439-95-4	
Molybdenum	**520**	ug/L	10.0	1.1	1	05/09/24 15:46	05/10/24 10:06	7439-98-7	
Potassium	**14700**	ug/L	1000	120	1	05/09/24 15:46	05/10/24 10:06	7440-09-7	
Sodium	**48500**	ug/L	1000	48.2	1	05/09/24 15:46	05/10/24 10:06	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**30300**	ug/L	100	11.4	1	05/15/24 20:27	05/16/24 13:27	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	05/15/24 20:27	05/16/24 10:29	7439-93-2	
Molybdenum, Dissolved	**559**	ug/L	10.0	1.1	1	05/15/24 20:27	05/16/24 10:29	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.49	1	05/08/24 07:45	05/08/24 20:47	7440-36-0	
Arsenic	**1.7**	ug/L	1.0	0.075	1	05/08/24 07:45	05/08/24 20:47	7440-38-2	
Barium	**33.7**	ug/L	1.0	0.077	1	05/08/24 07:45	05/08/24 20:47	7440-39-3	
Beryllium	ND	ug/L	0.20	0.035	1	05/08/24 07:45	05/08/24 20:47	7440-41-7	
Cobalt	ND	ug/L	1.0	0.046	1	05/08/24 07:45	05/09/24 23:20	7440-48-4	
Manganese	**2710**	ug/L	20.0	3.4	20	05/08/24 07:45	05/09/24 19:55	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	05/08/24 07:45	05/08/24 20:47	7782-49-2	
Thallium	ND	ug/L	1.0	0.040	1	05/08/24 07:45	05/08/24 20:47	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/08/24 07:45	05/08/24 17:43	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/17/24 09:53	05/19/24 16:49	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

Sample: DUP4 **Lab ID: 50372337002** Collected: 05/06/24 08:00 Received: 05/07/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**59.6**	mg/L	10.0	10.0	1		05/07/24 20:55		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2740**	mg/L	40.0	40.0	1		05/09/24 11:53		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.1**	Std. Units	0.10	0.10	1		05/09/24 15:42		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/07/24 14:41	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/07/24 21:57	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.17**	mg/L	0.15	0.13	1	05/15/24 11:15	05/17/24 18:13		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.7**	mg/L	1.0	0.25	1		05/13/24 19:18		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

Sample: AP-4A **Lab ID: 50372337003** Collected: 05/06/24 12:30 Received: 05/07/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**148**	mg/L	2.5	0.67	10		05/11/24 05:24	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/11/24 05:07	16984-48-8	
Sulfate	**1720**	mg/L	25.0	19.0	100		05/11/24 05:40	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**22200**	ug/L	100	11.4	1	05/09/24 15:46	05/10/24 10:12	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	05/09/24 15:46	05/10/24 10:12	7440-43-9	
Calcium	**651000**	ug/L	5000	284	5	05/09/24 15:46	05/10/24 12:04	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	05/09/24 15:46	05/10/24 10:12	7440-47-3	
Iron	**6820**	ug/L	100	18.1	1	05/09/24 15:46	05/10/24 10:12	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	05/09/24 15:46	05/10/24 10:12	7439-92-1	
Lithium	**35.2**	ug/L	20.0	5.1	1	05/09/24 15:46	05/10/24 10:12	7439-93-2	
Magnesium	**73800**	ug/L	1000	32.8	1	05/09/24 15:46	05/10/24 10:12	7439-95-4	
Molybdenum	**215**	ug/L	10.0	1.1	1	05/09/24 15:46	05/10/24 10:12	7439-98-7	
Potassium	**17100**	ug/L	1000	120	1	05/09/24 15:46	05/10/24 10:12	7440-09-7	
Sodium	**50200**	ug/L	1000	48.2	1	05/09/24 15:46	05/10/24 10:12	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**23300**	ug/L	100	11.4	1	05/15/24 20:27	05/16/24 13:29	7440-42-8	
Lithium, Dissolved	**36.7**	ug/L	20.0	5.1	1	05/15/24 20:27	05/16/24 10:34	7439-93-2	
Molybdenum, Dissolved	**230**	ug/L	10.0	1.1	1	05/15/24 20:27	05/16/24 10:34	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.49	1	05/08/24 07:45	05/08/24 20:58	7440-36-0	
Arsenic	ND	ug/L	1.0	0.075	1	05/08/24 07:45	05/08/24 20:58	7440-38-2	
Barium	**28.3**	ug/L	1.0	0.077	1	05/08/24 07:45	05/08/24 20:58	7440-39-3	
Beryllium	ND	ug/L	0.20	0.035	1	05/08/24 07:45	05/08/24 20:58	7440-41-7	
Cobalt	ND	ug/L	1.0	0.046	1	05/08/24 07:45	05/09/24 23:38	7440-48-4	
Manganese	**3840**	ug/L	30.0	5.0	30	05/08/24 07:45	05/09/24 19:58	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	05/08/24 07:45	05/08/24 20:58	7782-49-2	
Thallium	ND	ug/L	1.0	0.040	1	05/08/24 07:45	05/08/24 20:58	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/08/24 07:45	05/08/24 17:55	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/17/24 09:53	05/19/24 16:51	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

Sample: AP-4A **Lab ID: 50372337003** Collected: 05/06/24 12:30 Received: 05/07/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**131**	mg/L	10.0	10.0	1		05/07/24 20:55		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2650**	mg/L	40.0	40.0	1		05/09/24 11:53		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.3**	Std. Units	0.10	0.10	1		05/09/24 15:43		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/07/24 14:41	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/07/24 22:07	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.19**	mg/L	0.15	0.13	1	05/15/24 11:15	05/17/24 18:13		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.4**	mg/L	1.0	0.25	1		05/13/24 19:30		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

Sample: AP-4I **Lab ID: 50372337004** Collected: 05/06/24 13:55 Received: 05/07/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**110**	mg/L	2.5	0.67	10		05/11/24 06:46	16887-00-6	
Fluoride	**0.18**	mg/L	0.10	0.017	1		05/11/24 06:29	16984-48-8	
Sulfate	**1690**	mg/L	25.0	19.0	100		05/11/24 07:02	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**11900**	ug/L	100	11.4	1	05/09/24 15:46	05/10/24 10:14	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	05/09/24 15:46	05/10/24 10:14	7440-43-9	
Calcium	**729000**	ug/L	5000	284	5	05/09/24 15:46	05/10/24 12:05	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	05/09/24 15:46	05/10/24 10:14	7440-47-3	
Iron	**1310**	ug/L	100	18.1	1	05/09/24 15:46	05/10/24 10:14	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	05/09/24 15:46	05/10/24 10:14	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	05/09/24 15:46	05/10/24 10:14	7439-93-2	
Magnesium	**36500**	ug/L	1000	32.8	1	05/09/24 15:46	05/10/24 10:14	7439-95-4	
Molybdenum	**83.3**	ug/L	10.0	1.1	1	05/09/24 15:46	05/10/24 10:14	7439-98-7	
Potassium	**6390**	ug/L	1000	120	1	05/09/24 15:46	05/10/24 10:14	7440-09-7	
Sodium	**31700**	ug/L	1000	48.2	1	05/09/24 15:46	05/10/24 10:14	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**12400**	ug/L	100	11.4	1	05/15/24 20:27	05/16/24 13:31	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	05/15/24 20:27	05/16/24 10:36	7439-93-2	
Molybdenum, Dissolved	**89.0**	ug/L	10.0	1.1	1	05/15/24 20:27	05/16/24 10:36	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.49	1	05/08/24 07:45	05/08/24 21:02	7440-36-0	
Arsenic	ND	ug/L	1.0	0.075	1	05/08/24 07:45	05/08/24 21:02	7440-38-2	
Barium	**24.5**	ug/L	1.0	0.077	1	05/08/24 07:45	05/08/24 21:02	7440-39-3	
Beryllium	ND	ug/L	0.20	0.035	1	05/08/24 07:45	05/08/24 21:02	7440-41-7	
Cobalt	**2.1**	ug/L	1.0	0.046	1	05/08/24 07:45	05/09/24 23:46	7440-48-4	
Manganese	**4870**	ug/L	40.0	6.7	40	05/08/24 07:45	05/09/24 20:02	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	05/08/24 07:45	05/08/24 21:02	7782-49-2	
Thallium	ND	ug/L	1.0	0.040	1	05/08/24 07:45	05/08/24 21:02	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/08/24 07:45	05/08/24 17:58	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/17/24 09:53	05/19/24 16:54	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

Sample: AP-4I **Lab ID: 50372337004** Collected: 05/06/24 13:55 Received: 05/07/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**137**	mg/L	10.0	10.0	1		05/07/24 20:55		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2560**	mg/L	40.0	40.0	1		05/09/24 11:53		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.4**	Std. Units	0.10	0.10	1		05/09/24 15:44		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/07/24 14:41	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/07/24 22:09	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	05/15/24 11:15	05/17/24 18:14		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.2**	mg/L	1.0	0.25	1		05/13/24 19:41		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

QC Batch: 788743
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372337001, 50372337002, 50372337003, 50372337004

METHOD BLANK: 3608176 Matrix: Water
Associated Lab Samples: 50372337001, 50372337002, 50372337003, 50372337004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/10/24 11:01	
Fluoride	mg/L	ND	0.10	0.017	05/10/24 11:01	
Sulfate	mg/L	ND	0.25	0.19	05/10/24 11:01	

LABORATORY CONTROL SAMPLE: 3608177

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	93	80-120	
Fluoride	mg/L	1	0.97	97	80-120	
Sulfate	mg/L	5	4.9	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3608178 3608179

Parameter	Units	50372217001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	66.2	25	25	89.5	89.1	93	92	80-120	0	15	
Fluoride	mg/L	2.9	1	1	3.9	3.9	102	101	80-120	0	15	
Sulfate	mg/L	64.4	50	50	111	111	93	93	80-120	0	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3608180 3608181

Parameter	Units	50372278001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	24.8	2.5	2.5	27.4	27.5	104	108	80-120	0	15	E
Fluoride	mg/L	ND	1	1	1.1	1.1	100	101	80-120	1	15	
Sulfate	mg/L	290	50	50	336	334	92	89	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

QC Batch: 789231
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372337001, 50372337002, 50372337003, 50372337004

METHOD BLANK: 3610814 Matrix: Water
Associated Lab Samples: 50372337001, 50372337002, 50372337003, 50372337004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	05/19/24 16:19	

LABORATORY CONTROL SAMPLE: 3610815

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.4	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3610816 3610817

Parameter	Units	50372534001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.1	5.0	101	98	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

QC Batch: 788882
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372337001, 50372337002, 50372337003, 50372337004

METHOD BLANK: 3609050 Matrix: Water
Associated Lab Samples: 50372337001, 50372337002, 50372337003, 50372337004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	11.4	05/10/24 10:01	
Cadmium	ug/L	ND	2.0	0.74	05/10/24 10:01	
Calcium	ug/L	ND	1000	56.7	05/10/24 10:01	
Chromium	ug/L	ND	10.0	1.4	05/10/24 10:01	
Iron	ug/L	ND	100	18.1	05/10/24 10:01	
Lead	ug/L	ND	10.0	4.0	05/10/24 10:01	
Lithium	ug/L	ND	20.0	5.1	05/10/24 10:01	
Magnesium	ug/L	ND	1000	32.8	05/10/24 10:01	
Molybdenum	ug/L	ND	10.0	1.1	05/10/24 10:01	
Potassium	ug/L	ND	1000	120	05/10/24 10:01	
Sodium	ug/L	ND	1000	48.2	05/10/24 10:01	

LABORATORY CONTROL SAMPLE: 3609051

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	966	97	80-120	
Cadmium	ug/L	1000	921	92	80-120	
Calcium	ug/L	10000	9880	99	80-120	
Chromium	ug/L	1000	974	97	80-120	
Iron	ug/L	10000	9400	94	80-120	
Lead	ug/L	1000	897	90	80-120	
Lithium	ug/L	1000	992	99	80-120	
Magnesium	ug/L	10000	9780	98	80-120	
Molybdenum	ug/L	1000	987	99	80-120	
Potassium	ug/L	10000	9490	95	80-120	
Sodium	ug/L	10000	9490	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3609052 3609053

Parameter	Units	50372389001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	<100	1000	1000	1050	1010	97	93	75-125	4	20	
Cadmium	ug/L	<2.0	1000	1000	933	911	93	91	75-125	2	20	
Calcium	ug/L	54.5 mg/L	10000	10000	63300	61300	88	68	75-125	3	20	P6
Chromium	ug/L	<10.0	1000	1000	982	952	98	95	75-125	3	20	
Iron	ug/L	<100	10000	10000	9520	9220	95	92	75-125	3	20	
Lead	ug/L	<10.0	1000	1000	896	876	89	87	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3609052 3609053

Parameter	Units	50372389001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	<8.0	1000	1000	1020	980	102	98	75-125	4	20	
Magnesium	ug/L	7.5 mg/L	10000	10000	17100	16600	96	91	75-125	3	20	
Molybdenum	ug/L	<10.0	1000	1000	996	969	100	97	75-125	3	20	
Potassium	ug/L	1.7 mg/L	10000	10000	11600	11100	99	94	75-125	5	20	
Sodium	ug/L	11.7 mg/L	10000	10000	21100	20400	94	86	75-125	4	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

QC Batch: 789952
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372337001, 50372337002, 50372337003, 50372337004

METHOD BLANK: 3614467 Matrix: Water
Associated Lab Samples: 50372337001, 50372337002, 50372337003, 50372337004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	11.4	05/16/24 13:22	
Lithium, Dissolved	ug/L	ND	20.0	5.1	05/16/24 13:22	
Molybdenum, Dissolved	ug/L	ND	10.0	1.1	05/16/24 13:22	

LABORATORY CONTROL SAMPLE: 3614468

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	1050	105	80-120	
Lithium, Dissolved	ug/L	1000	1070	107	80-120	
Molybdenum, Dissolved	ug/L	1000	1100	110	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614469 3614470

Parameter	Units	50372420003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	407	1000	1000	1510	1430	111	103	75-125	5	20	CH
Lithium, Dissolved	ug/L	ND	1000	1000	1070	1030	106	102	75-125	4	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1140	1090	114	108	75-125	5	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

QC Batch: 788586
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372337001, 50372337002, 50372337003, 50372337004

METHOD BLANK: 3607520 Matrix: Water
Associated Lab Samples: 50372337001, 50372337002, 50372337003, 50372337004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.49	05/08/24 19:19	
Arsenic	ug/L	ND	1.0	0.075	05/08/24 19:19	
Barium	ug/L	ND	1.0	0.077	05/08/24 19:19	
Beryllium	ug/L	ND	0.20	0.035	05/08/24 19:19	
Cobalt	ug/L	ND	1.0	0.046	05/08/24 19:19	
Manganese	ug/L	ND	1.0	0.17	05/08/24 19:19	
Selenium	ug/L	ND	1.0	0.20	05/08/24 19:19	
Thallium	ug/L	ND	1.0	0.040	05/08/24 19:19	

LABORATORY CONTROL SAMPLE: 3607521

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	41.2	103	80-120	
Arsenic	ug/L	40	39.0	98	80-120	
Barium	ug/L	40	40.3	101	80-120	
Beryllium	ug/L	40	39.8	100	80-120	
Cobalt	ug/L	40	40.9	102	80-120	
Manganese	ug/L	40	40.6	102	80-120	
Selenium	ug/L	40	39.9	100	80-120	
Thallium	ug/L	40	41.3	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3607522 3607523

Parameter	Units	50372278001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	42.0	41.6	105	104	75-125	1	20	
Arsenic	ug/L	2.7	40	40	41.3	41.4	96	97	75-125	0	20	
Barium	ug/L	95.7	40	40	136	134	100	96	75-125	1	20	
Beryllium	ug/L	ND	40	40	39.5	39.1	99	98	75-125	1	20	
Cobalt	ug/L	1.9	40	40	40.5	40.4	97	96	75-125	0	20	
Manganese	ug/L	3760	40	40	3720	3810	-109	137	75-125	3	20	P6
Selenium	ug/L	ND	40	40	38.6	39.8	96	99	75-125	3	20	
Thallium	ug/L	ND	40	40	42.9	42.3	107	106	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

QC Batch: 788588
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372337001, 50372337002, 50372337003, 50372337004

METHOD BLANK: 3607528 Matrix: Water
Associated Lab Samples: 50372337001, 50372337002, 50372337003, 50372337004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.3	05/08/24 16:04	

LABORATORY CONTROL SAMPLE: 3607529

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	395	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3607530 3607531

Parameter	Units	50372217001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	410	419	101	103	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

QC Batch: 788614 | Analysis Method: SM 2320B
QC Batch Method: SM 2320B | Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372337001, 50372337002, 50372337003, 50372337004

METHOD BLANK: 3607656 Matrix: Water
Associated Lab Samples: 50372337001, 50372337002, 50372337003, 50372337004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/07/24 20:55	

LABORATORY CONTROL SAMPLE: 3607657

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	47.8	96	90-110	

SAMPLE DUPLICATE: 3607658

Parameter	Units	50372298001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	474	479	1	20	

SAMPLE DUPLICATE: 3607659

Parameter	Units	50372337001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	60.0	60.8	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

QC Batch: 788899 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372337001, 50372337002, 50372337003, 50372337004

METHOD BLANK: 3609136 Matrix: Water
Associated Lab Samples: 50372337001, 50372337002, 50372337003, 50372337004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/09/24 11:46	

LABORATORY CONTROL SAMPLE: 3609137

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	275	92	80-120	

SAMPLE DUPLICATE: 3609138

Parameter	Units	50372297001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	216	213	1	10	

SAMPLE DUPLICATE: 3609139

Parameter	Units	50372340001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2630	2590	2	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

QC Batch: 788964
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372337001, 50372337002, 50372337003, 50372337004

SAMPLE DUPLICATE: 3609321

Parameter	Units	50372299002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.8	7.6	1	2	H3

SAMPLE DUPLICATE: 3609322

Parameter	Units	50372419005 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.0	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

QC Batch: 788573
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372337001, 50372337002, 50372337003, 50372337004

METHOD BLANK: 3607250 Matrix: Water
Associated Lab Samples: 50372337001, 50372337002, 50372337003, 50372337004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/07/24 14:41	

LABORATORY CONTROL SAMPLE: 3607251

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3607252 3607253

Parameter	Units	50372339001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.55	0.55	109	109	90-110	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

QC Batch: 788620 | Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 | Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372337001, 50372337002, 50372337003, 50372337004

METHOD BLANK: 3607729 Matrix: Water
Associated Lab Samples: 50372337001, 50372337002, 50372337003, 50372337004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/07/24 21:54	

LABORATORY CONTROL SAMPLE: 3607730

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3607731 3607732

Parameter	Units	50372420003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	0.98	0.98	97	97	90-110	0	20	

MATRIX SPIKE SAMPLE: 3607733

Parameter	Units	50372420004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	0.93	92	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

QC Batch: 790021 | Analysis Method: EPA 365.1
QC Batch Method: EPA 365.1 | Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372337001, 50372337002, 50372337003, 50372337004

METHOD BLANK: 3614703 Matrix: Water
Associated Lab Samples: 50372337001, 50372337002, 50372337003, 50372337004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	05/17/24 18:04	

LABORATORY CONTROL SAMPLE: 3614704

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614705 3614706

Parameter	Units	50372335001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	1.1			2.6	2.6				1		

MATRIX SPIKE SAMPLE: 3614707

Parameter	Units	50372337001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	0.15		1.8			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

QC Batch: 789530 | Analysis Method: SM 5310C
QC Batch Method: SM 5310C | Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372337001, 50372337002, 50372337003, 50372337004

METHOD BLANK: 3612686 Matrix: Water
Associated Lab Samples: 50372337001, 50372337002, 50372337003, 50372337004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	05/13/24 14:36	

LABORATORY CONTROL SAMPLE: 3612687

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3612688 3612689

Parameter	Units	50372278003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.0	10	10	11.9	11.6	99	96	80-120	3	20	

MATRIX SPIKE SAMPLE: 3612690

Parameter	Units	50372298002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	4.8	10	13.3	85	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

Sample: AP-3A **Lab ID: 50372337001** Collected: 05/06/24 10:40 Received: 05/07/24 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.196 ± 0.360 (0.643) C:NA T:94%**	pCi/L	05/28/24 15:30	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.833 ± 0.406 (0.674) C:82% T:84%**	pCi/L	05/22/24 14:16	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.03 ± 0.766 (1.32)**	pCi/L	05/30/24 10:25	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

Sample: DUP4 **Lab ID: 50372337002** Collected: 05/06/24 08:00 Received: 05/07/24 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.534 ± 0.569 (0.922) C:NA T:95%**	pCi/L	05/28/24 15:30	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.997 ± 0.433 (0.696) C:86% T:81%**	pCi/L	05/22/24 14:16	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.53 ± 1.00 (1.62)**	pCi/L	05/30/24 10:25	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

Sample: AP-4A **Lab ID: 50372337003** Collected: 05/06/24 12:30 Received: 05/07/24 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.343 ± 0.349 (0.528) C:NA T:91%**	pCi/L	05/28/24 15:30	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.34 ± 0.513 (0.783) C:83% T:84%**	pCi/L	05/22/24 14:16	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.68 ± 0.862 (1.31)**	pCi/L	05/30/24 10:25	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

Sample: AP-4I **Lab ID: 50372337004** Collected: 05/06/24 13:55 Received: 05/07/24 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.260 ± 0.569 (1.01) C:NA T:93%**	pCi/L	05/28/24 15:30	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.637 ± 0.380 (0.689) C:84% T:85%**	pCi/L	05/22/24 14:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.897 ± 0.949 (1.70)**	pCi/L	05/30/24 10:25	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

QC Batch: 667540
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372337001, 50372337002, 50372337003, 50372337004

METHOD BLANK: 3250413 Matrix: Water
Associated Lab Samples: 50372337001, 50372337002, 50372337003, 50372337004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.118 ± 0.179 (0.106) C:NA T:90%	pCi/L	05/28/24 15:17	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

QC Batch: 667541
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372337001, 50372337002, 50372337003, 50372337004

METHOD BLANK: 3250414 Matrix: Water
Associated Lab Samples: 50372337001, 50372337002, 50372337003, 50372337004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.227 ± 0.339 (0.730) C:79% T:84%	pCi/L	05/22/24 14:15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

CH	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50372337001	**AP-3A**	EPA 9056	788743		
50372337002	**DUP4**	EPA 9056	788743		
50372337003	**AP-4A**	EPA 9056	788743		
50372337004	**AP-4I**	EPA 9056	788743		
50372337001	**AP-3A**	EPA 3010	788882	EPA 6010	789184
50372337002	**DUP4**	EPA 3010	788882	EPA 6010	789184
50372337003	**AP-4A**	EPA 3010	788882	EPA 6010	789184
50372337004	**AP-4I**	EPA 3010	788882	EPA 6010	789184
50372337001	**AP-3A**	EPA 3010	789952	EPA 6010	790303
50372337002	**DUP4**	EPA 3010	789952	EPA 6010	790303
50372337003	**AP-4A**	EPA 3010	789952	EPA 6010	790303
50372337004	**AP-4I**	EPA 3010	789952	EPA 6010	790303
50372337001	**AP-3A**	EPA 200.2	788586	EPA 6020	788785
50372337002	**DUP4**	EPA 200.2	788586	EPA 6020	788785
50372337003	**AP-4A**	EPA 200.2	788586	EPA 6020	788785
50372337004	**AP-4I**	EPA 200.2	788586	EPA 6020	788785
50372337001	**AP-3A**	EPA 200.2	788588	EPA 6020	788786
50372337002	**DUP4**	EPA 200.2	788588	EPA 6020	788786
50372337003	**AP-4A**	EPA 200.2	788588	EPA 6020	788786
50372337004	**AP-4I**	EPA 200.2	788588	EPA 6020	788786
50372337001	**AP-3A**	EPA 7470	789231	EPA 7470	790794
50372337002	**DUP4**	EPA 7470	789231	EPA 7470	790794
50372337003	**AP-4A**	EPA 7470	789231	EPA 7470	790794
50372337004	**AP-4I**	EPA 7470	789231	EPA 7470	790794
50372337001	**AP-3A**	EPA 903.1	667540		
50372337002	**DUP4**	EPA 903.1	667540		
50372337003	**AP-4A**	EPA 903.1	667540		
50372337004	**AP-4I**	EPA 903.1	667540		
50372337001	**AP-3A**	EPA 904.0	667541		
50372337002	**DUP4**	EPA 904.0	667541		
50372337003	**AP-4A**	EPA 904.0	667541		
50372337004	**AP-4I**	EPA 904.0	667541		
50372337001	**AP-3A**	Total Radium Calculation	672036		
50372337002	**DUP4**	Total Radium Calculation	672036		
50372337003	**AP-4A**	Total Radium Calculation	672036		
50372337004	**AP-4I**	Total Radium Calculation	672036		
50372337001	**AP-3A**	SM 2320B	788614		
50372337002	**DUP4**	SM 2320B	788614		
50372337003	**AP-4A**	SM 2320B	788614		
50372337004	**AP-4I**	SM 2320B	788614		
50372337001	**AP-3A**	SM 2540C	788899		
50372337002	**DUP4**	SM 2540C	788899		
50372337003	**AP-4A**	SM 2540C	788899		
50372337004	**AP-4I**	SM 2540C	788899		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372337

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50372337001	**AP-3A**	SM 4500-H+B	788964		
50372337002	**DUP4**	SM 4500-H+B	788964		
50372337003	**AP-4A**	SM 4500-H+B	788964		
50372337004	**AP-4I**	SM 4500-H+B	788964		
50372337001	**AP-3A**	SM 4500-S2-D	788573		
50372337002	**DUP4**	SM 4500-S2-D	788573		
50372337003	**AP-4A**	SM 4500-S2-D	788573		
50372337004	**AP-4I**	SM 4500-S2-D	788573		
50372337001	**AP-3A**	EPA 353.2	788620		
50372337002	**DUP4**	EPA 353.2	788620		
50372337003	**AP-4A**	EPA 353.2	788620		
50372337004	**AP-4I**	EPA 353.2	788620		
50372337001	**AP-3A**	EPA 365.1	790021	EPA 365.1	790691
50372337002	**DUP4**	EPA 365.1	790021	EPA 365.1	790691
50372337003	**AP-4A**	EPA 365.1	790021	EPA 365.1	790691
50372337004	**AP-4I**	EPA 365.1	790021	EPA 365.1	790691
50372337001	**AP-3A**	SM 5310C	789530		
50372337002	**DUP4**	SM 5310C	789530		
50372337003	**AP-4A**	SM 5310C	789530		
50372337004	**AP-4I**	SM 5310C	789530		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

WO# : 50372337

50372337

CHAIN-OF-CU

The Chain-of-Custody [illegible] accurately.

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg May 2024 P2R4	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:		Pace Profile #:	10498/59

Regulatory Agency	
State / Location	
	IN

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total Metals 6010/6020/7470	Diss. Metals 6010/6020	DOC by 5310	Alkalinity/pH	Cl, F, SO4 by 9056	TDS by 2540C	Nitrate by 353.2	Phosphate by 365.1	Sulfide by 4500	Rad 226/228 + Sum to PA			Residual Chlorine (Y/N)	
										Requested Analysis Filtered (Y/N)																				
1	AP-3A		G			5/6/24	1040		10	X	X	X		X					X	X	X	X	X	X	X	X	X			001
2	DUP 4		G			5/6/24			10	X	X	X		X					X	X	X	X	X	X	X	X	X			002
3	AP-4A		G			5/6/24	1230		10	X	X	X		X					X	X	X	X	X	X	X	X	X			003
4	AP-4I		G			5/6/24			10	X	X	X		X					X	X	X	X	X	X	X	X	X			004
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Metals* 6010: B, Cd, Cr, Fe, Pb, Mo, Ca, Mg, Na, K, Li (11)	[signature]	5-7-24	7:30AM	[signature]	5/7/24	730	
6020: Be, Mn, Co, As, Se, Sb, Ba, Tl (8). 7470: Hg (1)	[signature]	5/7/24	10:00 AM	[signature] Pace	5/7/24	1000	See SCUR
Diss 6010: B, Mo, Li (3). Diss 6020: Al, Mn (2)							

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Josh O'Brien					
SIGNATURE of SAMPLER:	[signature]	DATE Signed: 5-6-24				

F-IN-Q-290-rev.26, 30Apr2024

P2R4

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: DMP 05/07/24 10:13

1. **Courier:** ☐FED EX | UPS ☑CLIENT ☐PACE ☐NOW/JETT | OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H
4. **Cooler Temperature(s):** 1.6/1.6 | 2.3/2.3 | 1.0/1.0 | _____
   (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** | Bubble Wrap | ☑ Bubble Bags | ☐ None | ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **Was the PM notified of out of temp cooler?:** | Yes ☐No N/A
   Cooler temp should be above freezing to 6°C
8. **EZ Bottle Order?** | Yes | ☑No
   If yes but not on COC what is the EZ Bottle Order Number?: N/A

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.**	✓		
Short Hold Time Analysis (48 hours or less)? **Analysis:** Nitrate by 353.2	✓		**Circle:** **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID		✓	Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)		N/A	Trip Blank Custody Seals?:			✓

COMMENTS: No time on COC for AP-4I, time on containers = 1355. DMP 5/7/24

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1													1			2	1	2	1	1	1		1				WT	✓	✓		✓
2													↓			↓	↓	↓	↓	↓	↓		↓				↓	↓	↓		↓
3													↓			↓	↓	↓	↓	↓	↓		↓				↓	↓	↓		↓
4						time = 13:55							↓			↓	↓	↓	↓	↓	↓		↓				↓	↓	↓		↓
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

July 24, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 08, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50372467001	**AP-2BO**	Water	05/07/24 14:40	05/08/24 10:00
50372467002	**AP-2A**	Water	05/07/24 15:55	05/08/24 10:00
50372467003	**DUP-3**	Water	05/07/24 15:55	05/08/24 10:00

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50372467001	**AP-2BO**	EPA 9056	KBB	3	PASI-I
		EPA 6010	ABH	11	PASI-I
		EPA 6010	NWB	3	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	DMT	1	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	1	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50372467002	**AP-2A**	EPA 9056	KBB	3	PASI-I
		EPA 6010	ABH	11	PASI-I
		EPA 6010	NWB	3	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	DMT	1	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	1	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50372467003	**DUP-3**	EPA 9056	KBB	3	PASI-I
		EPA 6010	ABH	11	PASI-I
		EPA 6010	NWB	3	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	DMT	1	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	1	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372467001	**AP-2BO**					
EPA 9056	Chloride	92.3	mg/L	2.5	05/14/24 06:39	
EPA 9056	Sulfate	1230	mg/L	25.0	05/14/24 06:57	
EPA 6010	Boron	17500	ug/L	100	05/12/24 21:53	
EPA 6010	Calcium	607000	ug/L	5000	05/13/24 00:09	
EPA 6010	Iron	201	ug/L	100	05/12/24 21:53	
EPA 6010	Magnesium	28600	ug/L	1000	05/12/24 21:53	
EPA 6010	Molybdenum	574	ug/L	10.0	05/12/24 21:53	
EPA 6010	Potassium	10800	ug/L	1000	05/12/24 21:53	
EPA 6010	Sodium	29400	ug/L	1000	05/12/24 21:53	
EPA 6010	Boron, Dissolved	18600	ug/L	100	05/16/24 11:07	
EPA 6010	Molybdenum, Dissolved	608	ug/L	10.0	05/16/24 13:47	
EPA 6020	Arsenic	5.8	ug/L	1.0	05/11/24 11:19	
EPA 6020	Barium	23.8	ug/L	1.0	05/11/24 11:19	
EPA 6020	Cobalt	2.7	ug/L	1.0	05/11/24 11:19	
EPA 6020	Manganese	2600	ug/L	20.0	05/11/24 11:15	
EPA 903.1	Radium-226	-0.785 ± 0.665 (1.48) C:NA T:90%	pCi/L		05/28/24 14:48	
EPA 904.0	Radium-228	0.467 ± 0.343 (0.672) C:91% T:89%	pCi/L		05/23/24 15:49	
Total Radium Calculation	Total Radium	0.467 ± 1.01 (2.15)	pCi/L		05/31/24 11:17	
SM 2320B	Alkalinity, Total as CaCO3	176	mg/L	10.0	05/08/24 20:24	
SM 2540C	Total Dissolved Solids	2150	mg/L	20.0	05/09/24 11:43	
SM 4500-H+B	pH at 25 Degrees C	6.7	Std. Units	0.10	05/14/24 15:11	H3
SM 5310C	Dissolved Organic Carbon	3.3	mg/L	1.0	05/14/24 01:13	
50372467002	**AP-2A**					
EPA 9056	Chloride	214	mg/L	2.5	05/14/24 07:31	
EPA 9056	Fluoride	0.20	mg/L	0.10	05/14/24 07:14	
EPA 9056	Sulfate	1530	mg/L	25.0	05/14/24 07:49	
EPA 6010	Boron	22700	ug/L	100	05/12/24 21:55	
EPA 6010	Cadmium	4.3	ug/L	2.0	05/12/24 21:55	
EPA 6010	Calcium	718000	ug/L	5000	05/13/24 00:11	
EPA 6010	Iron	4500	ug/L	100	05/12/24 21:55	
EPA 6010	Lithium	66.8	ug/L	20.0	05/12/24 21:55	
EPA 6010	Magnesium	9300	ug/L	1000	05/12/24 21:55	
EPA 6010	Molybdenum	1120	ug/L	10.0	05/12/24 21:55	
EPA 6010	Potassium	41100	ug/L	1000	05/12/24 21:55	
EPA 6010	Sodium	48000	ug/L	1000	05/12/24 21:55	
EPA 6010	Boron, Dissolved	24100	ug/L	100	05/16/24 11:09	
EPA 6010	Lithium, Dissolved	67.3	ug/L	20.0	05/16/24 11:09	
EPA 6010	Molybdenum, Dissolved	1090	ug/L	10.0	05/16/24 13:49	
EPA 6020	Antimony	4.3	ug/L	1.0	05/11/24 11:27	
EPA 6020	Arsenic	1560	ug/L	10.0	05/11/24 11:23	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372467002	**AP-2A**					
EPA 6020	Barium	48.5	ug/L	1.0	05/11/24 11:27	
EPA 6020	Manganese	943	ug/L	10.0	05/11/24 11:23	
EPA 6020	Selenium	2.3	ug/L	1.0	05/11/24 11:27	
EPA 903.1	Radium-226	0.261 ± 0.512 (0.919) C:NA T:88%	pCi/L		05/28/24 14:48	
EPA 904.0	Radium-228	1.60 ± 0.556 (0.818) C:86% T:87%	pCi/L		05/23/24 15:49	
Total Radium Calculation	Total Radium	1.86 ± 1.07 (1.74)	pCi/L		05/31/24 11:17	
SM 2320B	Alkalinity, Total as CaCO3	47.4	mg/L	10.0	05/08/24 20:24	
SM 2540C	Total Dissolved Solids	2700	mg/L	40.0	05/09/24 11:43	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	05/14/24 15:14	H3
SM 4500-S2-D	Sulfide	0.62	mg/L	0.10	05/10/24 10:36	
EPA 365.1	Phosphate as P04	2.1	mg/L	0.15	05/20/24 19:35	
SM 5310C	Dissolved Organic Carbon	3.5	mg/L	1.0	05/14/24 01:25	
50372467003	**DUP-3**					
EPA 9056	Chloride	211	mg/L	2.5	05/14/24 08:58	
EPA 9056	Fluoride	0.19	mg/L	0.10	05/14/24 08:41	
EPA 9056	Sulfate	1530	mg/L	25.0	05/14/24 09:16	
EPA 6010	Boron	23000	ug/L	100	05/12/24 21:56	
EPA 6010	Cadmium	5.4	ug/L	2.0	05/12/24 21:56	
EPA 6010	Calcium	727000	ug/L	5000	05/13/24 00:13	
EPA 6010	Iron	3700	ug/L	100	05/12/24 21:56	
EPA 6010	Lithium	60.9	ug/L	20.0	05/12/24 21:56	
EPA 6010	Magnesium	8550	ug/L	1000	05/12/24 21:56	
EPA 6010	Molybdenum	1060	ug/L	10.0	05/12/24 21:56	
EPA 6010	Potassium	39900	ug/L	1000	05/12/24 21:56	
EPA 6010	Sodium	47500	ug/L	1000	05/12/24 21:56	
EPA 6010	Boron, Dissolved	24200	ug/L	100	05/16/24 11:11	
EPA 6010	Lithium, Dissolved	63.8	ug/L	20.0	05/16/24 11:11	
EPA 6010	Molybdenum, Dissolved	1110	ug/L	10.0	05/16/24 13:50	
EPA 6020	Antimony	4.4	ug/L	1.0	05/11/24 11:47	
EPA 6020	Arsenic	1860	ug/L	10.0	05/11/24 11:43	
EPA 6020	Barium	48.2	ug/L	1.0	05/11/24 11:47	
EPA 6020	Manganese	889	ug/L	10.0	05/11/24 11:43	
EPA 6020	Selenium	2.4	ug/L	1.0	05/11/24 11:47	
EPA 903.1	Radium-226	-0.290 ± 0.547 (1.17) C:NA T:96%	pCi/L		05/28/24 14:48	
EPA 904.0	Radium-228	1.49 ± 0.512 (0.720) C:88% T:87%	pCi/L		05/23/24 15:49	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372467003	**DUP-3**					
Total Radium Calculation	Total Radium	1.49 ± 1.06 (1.89)	pCi/L		05/31/24 11:17	
SM 2320B	Alkalinity, Total as CaCO3	48.4	mg/L	10.0	05/08/24 20:24	
SM 2540C	Total Dissolved Solids	2600	mg/L	40.0	05/09/24 11:43	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	05/14/24 15:15	H3
SM 4500-S2-D	Sulfide	0.81	mg/L	0.10	05/10/24 10:36	
EPA 353.2	Nitrogen, Nitrate	0.11	mg/L	0.10	05/08/24 21:24	
EPA 365.1	Phosphate as P04	2.3	mg/L	0.15	05/20/24 19:35	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

Sample: AP-2BO **Lab ID: 50372467001** Collected: 05/07/24 14:40 Received: 05/08/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**92.3**	mg/L	2.5	0.67	10		05/14/24 06:39	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/14/24 06:22	16984-48-8	
Sulfate	**1230**	mg/L	25.0	19.0	100		05/14/24 06:57	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**17500**	ug/L	100	11.4	1	05/09/24 21:49	05/12/24 21:53	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	05/09/24 21:49	05/12/24 21:53	7440-43-9	
Calcium	**607000**	ug/L	5000	284	5	05/09/24 21:49	05/13/24 00:09	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	05/09/24 21:49	05/12/24 21:53	7440-47-3	
Iron	**201**	ug/L	100	18.1	1	05/09/24 21:49	05/12/24 21:53	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	05/09/24 21:49	05/12/24 21:53	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	05/09/24 21:49	05/12/24 21:53	7439-93-2	
Magnesium	**28600**	ug/L	1000	32.8	1	05/09/24 21:49	05/12/24 21:53	7439-95-4	
Molybdenum	**574**	ug/L	10.0	1.1	1	05/09/24 21:49	05/12/24 21:53	7439-98-7	
Potassium	**10800**	ug/L	1000	120	1	05/09/24 21:49	05/12/24 21:53	7440-09-7	
Sodium	**29400**	ug/L	1000	48.2	1	05/09/24 21:49	05/12/24 21:53	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**18600**	ug/L	100	11.4	1	05/15/24 20:27	05/16/24 11:07	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	05/15/24 20:27	05/16/24 11:07	7439-93-2	
Molybdenum, Dissolved	**608**	ug/L	10.0	1.1	1	05/15/24 20:27	05/16/24 13:47	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	05/10/24 15:02	05/11/24 11:19	7440-36-0	
Arsenic	**5.8**	ug/L	1.0	0.10	1	05/10/24 15:02	05/11/24 11:19	7440-38-2	
Barium	**23.8**	ug/L	1.0	0.062	1	05/10/24 15:02	05/11/24 11:19	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	05/10/24 15:02	05/11/24 11:19	7440-41-7	
Cobalt	**2.7**	ug/L	1.0	0.060	1	05/10/24 15:02	05/11/24 11:19	7440-48-4	
Manganese	**2600**	ug/L	20.0	3.0	20	05/10/24 15:02	05/11/24 11:15	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	05/10/24 15:02	05/11/24 11:19	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	05/10/24 15:02	05/11/24 11:19	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	05/11/24 15:18	05/13/24 13:43	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	05/15/24 19:26	05/16/24 09:29	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

Sample: AP-2BO **Lab ID: 50372467001** Collected: 05/07/24 14:40 Received: 05/08/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**176**	mg/L	10.0	10.0	1		05/08/24 20:24		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2150**	mg/L	20.0	20.0	1		05/09/24 11:43		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.7**	Std. Units	0.10	0.10	1		05/14/24 15:11		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/10/24 10:36	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/08/24 21:11	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	05/16/24 12:45	05/20/24 21:56		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.3**	mg/L	1.0	0.25	1		05/14/24 01:13		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

Sample: AP-2A **Lab ID: 50372467002** Collected: 05/07/24 15:55 Received: 05/08/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**214**	mg/L	2.5	0.67	10		05/14/24 07:31	16887-00-6	
Fluoride	**0.20**	mg/L	0.10	0.017	1		05/14/24 07:14	16984-48-8	
Sulfate	**1530**	mg/L	25.0	19.0	100		05/14/24 07:49	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**22700**	ug/L	100	11.4	1	05/09/24 21:49	05/12/24 21:55	7440-42-8	
Cadmium	**4.3**	ug/L	2.0	0.74	1	05/09/24 21:49	05/12/24 21:55	7440-43-9	
Calcium	**718000**	ug/L	5000	284	5	05/09/24 21:49	05/13/24 00:11	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	05/09/24 21:49	05/12/24 21:55	7440-47-3	
Iron	**4500**	ug/L	100	18.1	1	05/09/24 21:49	05/12/24 21:55	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	05/09/24 21:49	05/12/24 21:55	7439-92-1	
Lithium	**66.8**	ug/L	20.0	5.1	1	05/09/24 21:49	05/12/24 21:55	7439-93-2	
Magnesium	**9300**	ug/L	1000	32.8	1	05/09/24 21:49	05/12/24 21:55	7439-95-4	
Molybdenum	**1120**	ug/L	10.0	1.1	1	05/09/24 21:49	05/12/24 21:55	7439-98-7	
Potassium	**41100**	ug/L	1000	120	1	05/09/24 21:49	05/12/24 21:55	7440-09-7	
Sodium	**48000**	ug/L	1000	48.2	1	05/09/24 21:49	05/12/24 21:55	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**24100**	ug/L	100	11.4	1	05/15/24 20:27	05/16/24 11:09	7440-42-8	
Lithium, Dissolved	**67.3**	ug/L	20.0	5.1	1	05/15/24 20:27	05/16/24 11:09	7439-93-2	
Molybdenum, Dissolved	**1090**	ug/L	10.0	1.1	1	05/15/24 20:27	05/16/24 13:49	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	**4.3**	ug/L	1.0	0.26	1	05/10/24 15:02	05/11/24 11:27	7440-36-0	
Arsenic	**1560**	ug/L	10.0	1.0	10	05/10/24 15:02	05/11/24 11:23	7440-38-2	
Barium	**48.5**	ug/L	1.0	0.062	1	05/10/24 15:02	05/11/24 11:27	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	05/10/24 15:02	05/11/24 11:27	7440-41-7	
Cobalt	ND	ug/L	1.0	0.060	1	05/10/24 15:02	05/11/24 11:27	7440-48-4	
Manganese	**943**	ug/L	10.0	1.5	10	05/10/24 15:02	05/11/24 11:23	7439-96-5	
Selenium	**2.3**	ug/L	1.0	0.36	1	05/10/24 15:02	05/11/24 11:27	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	05/10/24 15:02	05/11/24 11:27	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	05/11/24 15:18	05/15/24 05:42	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	05/15/24 19:26	05/16/24 09:31	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

Sample: AP-2A **Lab ID: 50372467002** Collected: 05/07/24 15:55 Received: 05/08/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**47.4**	mg/L	10.0	10.0	1		05/08/24 20:24		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2700**	mg/L	40.0	40.0	1		05/09/24 11:43		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		05/14/24 15:14		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	**0.62**	mg/L	0.10	0.025	1		05/10/24 10:36	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/08/24 21:22	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**2.1**	mg/L	0.15	0.13	1	05/16/24 12:45	05/20/24 19:35		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.5**	mg/L	1.0	0.25	1		05/14/24 01:25		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

Sample: DUP-3 **Lab ID: 50372467003** Collected: 05/07/24 15:55 Received: 05/08/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**211**	mg/L	2.5	0.67	10		05/14/24 08:58	16887-00-6	
Fluoride	**0.19**	mg/L	0.10	0.017	1		05/14/24 08:41	16984-48-8	
Sulfate	**1530**	mg/L	25.0	19.0	100		05/14/24 09:16	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**23000**	ug/L	100	11.4	1	05/09/24 21:49	05/12/24 21:56	7440-42-8	
Cadmium	**5.4**	ug/L	2.0	0.74	1	05/09/24 21:49	05/12/24 21:56	7440-43-9	
Calcium	**727000**	ug/L	5000	284	5	05/09/24 21:49	05/13/24 00:13	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	05/09/24 21:49	05/12/24 21:56	7440-47-3	
Iron	**3700**	ug/L	100	18.1	1	05/09/24 21:49	05/12/24 21:56	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	05/09/24 21:49	05/12/24 21:56	7439-92-1	
Lithium	**60.9**	ug/L	20.0	5.1	1	05/09/24 21:49	05/12/24 21:56	7439-93-2	
Magnesium	**8550**	ug/L	1000	32.8	1	05/09/24 21:49	05/12/24 21:56	7439-95-4	
Molybdenum	**1060**	ug/L	10.0	1.1	1	05/09/24 21:49	05/12/24 21:56	7439-98-7	
Potassium	**39900**	ug/L	1000	120	1	05/09/24 21:49	05/12/24 21:56	7440-09-7	
Sodium	**47500**	ug/L	1000	48.2	1	05/09/24 21:49	05/12/24 21:56	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**24200**	ug/L	100	11.4	1	05/15/24 20:27	05/16/24 11:11	7440-42-8	
Lithium, Dissolved	**63.8**	ug/L	20.0	5.1	1	05/15/24 20:27	05/16/24 11:11	7439-93-2	
Molybdenum, Dissolved	**1110**	ug/L	10.0	1.1	1	05/15/24 20:27	05/16/24 13:50	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	**4.4**	ug/L	1.0	0.26	1	05/10/24 15:02	05/11/24 11:47	7440-36-0	
Arsenic	**1860**	ug/L	10.0	1.0	10	05/10/24 15:02	05/11/24 11:43	7440-38-2	
Barium	**48.2**	ug/L	1.0	0.062	1	05/10/24 15:02	05/11/24 11:47	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	05/10/24 15:02	05/11/24 11:47	7440-41-7	
Cobalt	ND	ug/L	1.0	0.060	1	05/10/24 15:02	05/11/24 11:47	7440-48-4	
Manganese	**889**	ug/L	10.0	1.5	10	05/10/24 15:02	05/11/24 11:43	7439-96-5	
Selenium	**2.4**	ug/L	1.0	0.36	1	05/10/24 15:02	05/11/24 11:47	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	05/10/24 15:02	05/11/24 11:47	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	05/11/24 15:18	05/15/24 05:49	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	05/15/24 19:26	05/16/24 09:34	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

Sample: DUP-3 **Lab ID: 50372467003** Collected: 05/07/24 15:55 Received: 05/08/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**48.4**	mg/L	10.0	10.0	1		05/08/24 20:24		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2600**	mg/L	40.0	40.0	1		05/09/24 11:43		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		05/14/24 15:15		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	**0.81**	mg/L	0.10	0.025	1		05/10/24 10:36	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**0.11**	mg/L	0.10	0.013	1		05/08/24 21:24	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**2.3**	mg/L	0.15	0.13	1	05/16/24 12:45	05/20/24 19:35		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	4.0	1.0	4		05/14/24 01:36		D3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

QC Batch: 788752
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372467001, 50372467002, 50372467003

METHOD BLANK: 3608197 Matrix: Water
Associated Lab Samples: 50372467001, 50372467002, 50372467003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/13/24 18:28	
Fluoride	mg/L	ND	0.10	0.017	05/13/24 18:28	
Sulfate	mg/L	ND	0.25	0.19	05/13/24 18:28	

LABORATORY CONTROL SAMPLE: 3608198

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	94	80-120	
Fluoride	mg/L	1	1.0	100	80-120	
Sulfate	mg/L	5	4.7	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3608199 3608200

Parameter	Units	50372340001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	89.2	25	25	112	111	91	88	80-120	1	15	
Fluoride	mg/L	0.37	1	1	1.4	1.4	103	101	80-120	2	15	
Sulfate	mg/L	1290	500	500	1720	1720	86	86	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

QC Batch: 790071
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372467001, 50372467002, 50372467003

METHOD BLANK: 3614868 Matrix: Water
Associated Lab Samples: 50372467001, 50372467002, 50372467003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	05/16/24 09:04	

LABORATORY CONTROL SAMPLE: 3614869

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.9	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614870 3614871

Parameter	Units	50372252004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.9	4.9	97	97	75-125	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614872 3614873

Parameter	Units	50372470001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.9	4.9	96	97	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

QC Batch: 788885
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372467001, 50372467002, 50372467003

METHOD BLANK: 3609062 Matrix: Water
Associated Lab Samples: 50372467001, 50372467002, 50372467003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	11.4	05/12/24 21:30	
Cadmium	ug/L	ND	2.0	0.74	05/12/24 21:30	
Calcium	ug/L	ND	1000	56.7	05/12/24 21:30	
Chromium	ug/L	ND	10.0	1.4	05/12/24 21:30	
Iron	ug/L	ND	100	18.1	05/12/24 21:30	
Lead	ug/L	ND	10.0	4.0	05/12/24 21:30	
Lithium	ug/L	ND	20.0	5.1	05/12/24 21:30	
Magnesium	ug/L	ND	1000	32.8	05/12/24 21:30	
Molybdenum	ug/L	ND	10.0	1.1	05/12/24 21:30	
Potassium	ug/L	ND	1000	120	05/12/24 21:30	
Sodium	ug/L	ND	1000	48.2	05/12/24 21:30	

LABORATORY CONTROL SAMPLE: 3609063

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	996	100	80-120	
Cadmium	ug/L	1000	957	96	80-120	
Calcium	ug/L	10000	10400	104	80-120	
Chromium	ug/L	1000	1020	102	80-120	
Iron	ug/L	10000	9720	97	80-120	
Lead	ug/L	1000	934	93	80-120	
Lithium	ug/L	1000	1030	103	80-120	
Magnesium	ug/L	10000	10000	100	80-120	
Molybdenum	ug/L	1000	1030	103	80-120	
Potassium	ug/L	10000	10100	101	80-120	
Sodium	ug/L	10000	10000	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3609064 3609065

Parameter	Units	50372470001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	101	1000	1000	1130	1160	103	105	75-125	2	20	
Cadmium	ug/L	ND	1000	1000	962	990	96	99	75-125	3	20	
Calcium	ug/L	177000	10000	10000	184000	184000	71	69	75-125	0	20	P6
Chromium	ug/L	20.2	1000	1000	1020	1060	100	104	75-125	3	20	
Iron	ug/L	26800	10000	10000	35800	36100	90	92	75-125	1	20	
Lead	ug/L	18.2	1000	1000	913	941	89	92	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3609064 3609065

Parameter	Units	50372470001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	ND	1000	1000	1050	1070	104	105	75-125	2	20	
Magnesium	ug/L	59100	10000	10000	68100	68200	90	91	75-125	0	20	
Molybdenum	ug/L	14.5	1000	1000	1050	1080	103	106	75-125	3	20	
Potassium	ug/L	5940	10000	10000	16600	16600	107	107	75-125	0	20	
Sodium	ug/L	10200	10000	10000	20000	20100	98	98	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

QC Batch: 789952
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372467001, 50372467002, 50372467003

METHOD BLANK: 3614467 Matrix: Water
Associated Lab Samples: 50372467001, 50372467002, 50372467003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	11.4	05/16/24 13:22	
Lithium, Dissolved	ug/L	ND	20.0	5.1	05/16/24 13:22	
Molybdenum, Dissolved	ug/L	ND	10.0	1.1	05/16/24 13:22	

LABORATORY CONTROL SAMPLE: 3614468

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	1050	105	80-120	
Lithium, Dissolved	ug/L	1000	1070	107	80-120	
Molybdenum, Dissolved	ug/L	1000	1100	110	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614469 3614470

Parameter	Units	50372420003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	407	1000	1000	1510	1430	111	103	75-125	5	20	CH
Lithium, Dissolved	ug/L	ND	1000	1000	1070	1030	106	102	75-125	4	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1140	1090	114	108	75-125	5	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

QC Batch: 789097
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372467001, 50372467002, 50372467003

METHOD BLANK: 3610042 Matrix: Water
Associated Lab Samples: 50372467001, 50372467002, 50372467003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.26	05/11/24 10:15	
Arsenic	ug/L	ND	1.0	0.10	05/11/24 10:15	
Barium	ug/L	ND	1.0	0.062	05/11/24 10:15	
Beryllium	ug/L	ND	0.20	0.020	05/11/24 10:15	
Cobalt	ug/L	ND	1.0	0.060	05/11/24 10:15	
Manganese	ug/L	ND	1.0	0.15	05/11/24 10:15	
Selenium	ug/L	ND	1.0	0.36	05/11/24 10:15	
Thallium	ug/L	ND	1.0	0.079	05/11/24 10:15	

LABORATORY CONTROL SAMPLE: 3610043

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	43.3	108	80-120	
Arsenic	ug/L	40	41.0	103	80-120	
Barium	ug/L	40	40.0	100	80-120	
Beryllium	ug/L	40	39.8	100	80-120	
Cobalt	ug/L	40	40.9	102	80-120	
Manganese	ug/L	40	41.7	104	80-120	
Selenium	ug/L	40	41.0	103	80-120	
Thallium	ug/L	40	39.6	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3610044 3610045

Parameter	Units	50372593002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	44.5	44.7	111	111	75-125	0	20	
Arsenic	ug/L	ND	40	40	41.7	42.2	104	105	75-125	1	20	
Barium	ug/L	20.7	40	40	60.0	60.1	98	98	75-125	0	20	
Beryllium	ug/L	ND	40	40	39.9	40.2	100	100	75-125	1	20	
Cobalt	ug/L	ND	40	40	38.4	38.7	95	96	75-125	1	20	
Manganese	ug/L	168	40	40	204	206	88	93	75-125	1	20	
Selenium	ug/L	2.4	40	40	44.3	45.7	105	108	75-125	3	20	
Thallium	ug/L	ND	40	40	39.5	39.8	99	99	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

QC Batch: 789335
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372467001, 50372467002, 50372467003

METHOD BLANK: 3611447 Matrix: Water
Associated Lab Samples: 50372467001, 50372467002, 50372467003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	4.4	05/13/24 12:13	

LABORATORY CONTROL SAMPLE: 3611448

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	401	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3611449 3611450

Parameter	Units	50372488022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	<10.0	400	400	414	408	103	101	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

QC Batch: 788838
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372467001, 50372467002, 50372467003

METHOD BLANK: 3608731 Matrix: Water
Associated Lab Samples: 50372467001, 50372467002, 50372467003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/08/24 20:24	

LABORATORY CONTROL SAMPLE: 3608732

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.9	100	90-110	

SAMPLE DUPLICATE: 3608733

Parameter	Units	50372420001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	318	323	1	20	

SAMPLE DUPLICATE: 3608734

Parameter	Units	50372420003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	242	247	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

QC Batch: 788902 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372467001, 50372467002, 50372467003

METHOD BLANK: 3609148 Matrix: Water
Associated Lab Samples: 50372467001, 50372467002, 50372467003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/09/24 11:37	

LABORATORY CONTROL SAMPLE: 3609149

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	287	96	80-120	

SAMPLE DUPLICATE: 3609150

Parameter	Units	50372425001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1170	1180	1	10	

SAMPLE DUPLICATE: 3609151

Parameter	Units	50372468001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2350	2420	3	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

QC Batch: 789794
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372467001, 50372467002, 50372467003

SAMPLE DUPLICATE: 3613638

Parameter	Units	50372421001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.6	6.6	0	2	H3

SAMPLE DUPLICATE: 3613639

Parameter	Units	50372534001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.2	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

QC Batch: 789189
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372467001, 50372467002, 50372467003

METHOD BLANK: 3610625 Matrix: Water
Associated Lab Samples: 50372467001, 50372467002, 50372467003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/10/24 10:36	

LABORATORY CONTROL SAMPLE: 3610626

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.51	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3610627 3610628

Parameter	Units	50372541001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	0.066J	0.5	0.5	0.53	0.52	93	92	90-110	1	20	

MATRIX SPIKE SAMPLE: 3610629

Parameter	Units	50372421004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.48	96	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

QC Batch: 788852
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372467001, 50372467002, 50372467003

METHOD BLANK: 3608839 Matrix: Water
Associated Lab Samples: 50372467001, 50372467002, 50372467003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/08/24 20:46	

LABORATORY CONTROL SAMPLE: 3608840

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3608841 3608842

Parameter	Units	50372443004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.0	1.0	99	99	90-110	0	20	

MATRIX SPIKE SAMPLE: 3608843

Parameter	Units	50372467001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.0	100	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

QC Batch: 790284
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372467001, 50372467002, 50372467003

METHOD BLANK: 3615992 Matrix: Water
Associated Lab Samples: 50372467001, 50372467002, 50372467003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	05/20/24 21:46	

LABORATORY CONTROL SAMPLE: 3615993

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3615994 3615995

Parameter	Units	50372442001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			3.0	1.4				70		

MATRIX SPIKE SAMPLE: 3615996

Parameter	Units	50372467001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	ND		1.6			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

QC Batch: 789532
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372467001, 50372467002, 50372467003

METHOD BLANK: 3612703 Matrix: Water
Associated Lab Samples: 50372467001, 50372467002, 50372467003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	05/13/24 20:30	

LABORATORY CONTROL SAMPLE: 3612704

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3612705 3612706

Parameter	Units	50372420003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.9	10	10	11.2	10.8	93	89	80-120	4	20	

MATRIX SPIKE SAMPLE: 3612707

Parameter	Units	50372468001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	5.4	10	15.0	96	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

Sample: AP-2BO **Lab ID: 50372467001** Collected: 05/07/24 14:40 Received: 05/08/24 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.785 ± 0.665 (1.48) C:NA T:90%**	pCi/L	05/28/24 14:48	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.467 ± 0.343 (0.672) C:91% T:89%**	pCi/L	05/23/24 15:49	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.467 ± 1.01 (2.15)**	pCi/L	05/31/24 11:17	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

Sample: AP-2A **Lab ID: 50372467002** Collected: 05/07/24 15:55 Received: 05/08/24 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.261 ± 0.512 (0.919) C:NA T:88%**	pCi/L	05/28/24 14:48	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.60 ± 0.556 (0.818) C:86% T:87%**	pCi/L	05/23/24 15:49	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.86 ± 1.07 (1.74)**	pCi/L	05/31/24 11:17	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

Sample: DUP-3 **Lab ID: 50372467003** Collected: 05/07/24 15:55 Received: 05/08/24 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.290 ± 0.547 (1.17) C:NA T:96%**	pCi/L	05/28/24 14:48	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.49 ± 0.512 (0.720) C:88% T:87%**	pCi/L	05/23/24 15:49	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.49 ± 1.06 (1.89)**	pCi/L	05/31/24 11:17	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

QC Batch: 667920
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372467001, 50372467002, 50372467003

METHOD BLANK: 3252200 Matrix: Water
Associated Lab Samples: 50372467001, 50372467002, 50372467003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0224 ± 0.279 (0.650) C:97% T:77%	pCi/L	05/23/24 15:47	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

QC Batch: 667919
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372467001, 50372467002, 50372467003

METHOD BLANK: 3252199 Matrix: Water
Associated Lab Samples: 50372467001, 50372467002, 50372467003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.219 (0.445) C:NA T:85%	pCi/L	05/28/24 14:35	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

CH	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
H3	Sample was received or analysis requested beyond the recognized method holding time.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50372467001	**AP-2BO**	EPA 9056	788752		
50372467002	**AP-2A**	EPA 9056	788752		
50372467003	**DUP-3**	EPA 9056	788752		
50372467001	**AP-2BO**	EPA 3010	788885	EPA 6010	789466
50372467002	**AP-2A**	EPA 3010	788885	EPA 6010	789466
50372467003	**DUP-3**	EPA 3010	788885	EPA 6010	789466
50372467001	**AP-2BO**	EPA 3010	789952	EPA 6010	790303
50372467002	**AP-2A**	EPA 3010	789952	EPA 6010	790303
50372467003	**DUP-3**	EPA 3010	789952	EPA 6010	790303
50372467001	**AP-2BO**	EPA 200.2	789097	EPA 6020	789382
50372467002	**AP-2A**	EPA 200.2	789097	EPA 6020	789382
50372467003	**DUP-3**	EPA 200.2	789097	EPA 6020	789382
50372467001	**AP-2BO**	EPA 200.2	789335	EPA 6020	789473
50372467002	**AP-2A**	EPA 200.2	789335	EPA 6020	789473
50372467003	**DUP-3**	EPA 200.2	789335	EPA 6020	789473
50372467001	**AP-2BO**	EPA 7470	790071	EPA 7470	790266
50372467002	**AP-2A**	EPA 7470	790071	EPA 7470	790266
50372467003	**DUP-3**	EPA 7470	790071	EPA 7470	790266
50372467001	**AP-2BO**	EPA 903.1	667919		
50372467002	**AP-2A**	EPA 903.1	667919		
50372467003	**DUP-3**	EPA 903.1	667919		
50372467001	**AP-2BO**	EPA 904.0	667920		
50372467002	**AP-2A**	EPA 904.0	667920		
50372467003	**DUP-3**	EPA 904.0	667920		
50372467001	**AP-2BO**	Total Radium Calculation	672363		
50372467002	**AP-2A**	Total Radium Calculation	672363		
50372467003	**DUP-3**	Total Radium Calculation	672363		
50372467001	**AP-2BO**	SM 2320B	788838		
50372467002	**AP-2A**	SM 2320B	788838		
50372467003	**DUP-3**	SM 2320B	788838		
50372467001	**AP-2BO**	SM 2540C	788902		
50372467002	**AP-2A**	SM 2540C	788902		
50372467003	**DUP-3**	SM 2540C	788902		
50372467001	**AP-2BO**	SM 4500-H+B	789794		
50372467002	**AP-2A**	SM 4500-H+B	789794		
50372467003	**DUP-3**	SM 4500-H+B	789794		
50372467001	**AP-2BO**	SM 4500-S2-D	789189		
50372467002	**AP-2A**	SM 4500-S2-D	789189		
50372467003	**DUP-3**	SM 4500-S2-D	789189		
50372467001	**AP-2BO**	EPA 353.2	788852		
50372467002	**AP-2A**	EPA 353.2	788852		
50372467003	**DUP-3**	EPA 353.2	788852		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372467

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50372467001	**AP-2BO**	EPA 365.1	790284	EPA 365.1	790975
50372467002	**AP-2A**	EPA 365.1	790284	EPA 365.1	790975
50372467003	**DUP-3**	EPA 365.1	790284	EPA 365.1	790975
50372467001	**AP-2BO**	SM 5310C	789532		
50372467002	**AP-2A**	SM 5310C	789532		
50372467003	**DUP-3**	SM 5310C	789532		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO# : 50372467

50372467

Pace Analytical
WWW.PACELABS.COM

Request Document

...ant fields must be completed accurately.

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:			
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg May 2024 P2R4	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:		Pace Profile #:	10498/59

Regulatory Agency	
State / Location	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total Metals 6010/6020/7470	Diss. Metals 6010/6020	DOC by 5310	Alkalinity/pH	Cl, F, SO4 by 9056	TDS by 2540C	Nitrate by 353.2	Phosphate by 365.1	Sulfide by 4500	Rad 226/228 + Sum to PA	Residual Chlorine (Y/N)	
1	AP-2B0	WT	G			5/7/24	1440		10	X	X	X		X					X	X	X	X	X	X	X	X	X	X		001
2	AP-2A	WT	G			5/7/24	1555		10	X	X	X		X					X	X	X	X	X	X	X	X	X	X		002
3	DUP-3	WT	G			5/7/24			10	X	X	X		X					X	X	X	X	X	X	X	X	X	X		003
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
Metals* 6010: B, Cd, Cr, Fe, Pb, Mo, Ca, Mg, Na, K, Li (11)	Josh O'B	5-8-24	7:45	Jay Williams	5/8/24	7:45				
6020: Be, Mn, Co, As, Se, Sb, Ba, Tl (8). 7470: Hg (1)	Jay Williams	5/8/24	10:00 AM	David Reuter / Pace	5/8/24	1000	see SCUR	Y	Y	Y
Diss 6010: B, Mo, Li (3). Diss 6020: Al, Mn (2)										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Josh O'Brian

SIGNATURE of SAMPLER: Josh O'B

DATE Signed: 5-7-24

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: DMP 05/08/24 1018

1. Courier: ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. Custody Seal on Cooler/Box Present: ☑ Yes ☐ No
(If yes)Seals Intact: ☑ Yes ☐ No (leave blank if no seals were present)
3. Thermometer: 1 2 3 4 5 6 7 8 A B C D E F G H
4. Cooler Temperature(s): 1.3/1.2 | 1.8/1.7 | | (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)
5. Packing Material: (1/2) ☑ Bubble Wrap ☑ Bubble Bags (2/2) ☐ None ☐ Other _____
6. Ice Type: ☑ Wet ☐ Blue ☐ None
7. Was the PM notified of out of temp cooler?: ☐ Yes ☐ No N/A
Cooler temp should be above freezing to 6°C
8. EZ Bottle Order? ☐ Yes ☑ No
If yes but not on COC what is the EZ Bottle Order Number?: N/A

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** Circle: **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis: Nitrate by 353.2	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 12:17			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID		✓	Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)		N/A	Trip Blank Custody Seals?:			✓

COMMENTS: DUP-3 no time on COC, but container times = 1555. DMP 5/8/24

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1													1			2	1	2	1	1	1		1				WT	✓	✓		✓
2													↓			↓	↓	↓	↓	↓	↓		↓				↓	↓	↓		↓
3									15:55				↓			↓	↓	↓	↓	↓	↓		↓				↓	↓	↓		↓
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

July 24, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 08, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50372469001	**AP-9B**	Water	05/07/24 13:15	05/08/24 10:00
50372469002	**AP-9I**	Water	05/07/24 14:50	05/08/24 10:00

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50372469001	**AP-9B**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	NWB	3	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	DMT	1	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	1	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50372469002	**AP-9I**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	NWB	3	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	DMT	1	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		SM 2320B	DAW	1	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372469001	**AP-9B**					
EPA 9056	Chloride	51.5	mg/L	2.5	05/13/24 18:45	
EPA 9056	Sulfate	801	mg/L	25.0	05/13/24 19:02	
EPA 6010	Boron	8040	ug/L	100	05/11/24 00:52	
EPA 6010	Calcium	386000	ug/L	5000	05/11/24 01:41	
EPA 6010	Iron	2600	ug/L	100	05/11/24 00:52	
EPA 6010	Magnesium	60400	ug/L	1000	05/11/24 00:52	
EPA 6010	Molybdenum	148	ug/L	10.0	05/11/24 00:52	
EPA 6010	Potassium	7950	ug/L	1000	05/11/24 00:52	
EPA 6010	Sodium	23900	ug/L	1000	05/11/24 00:52	
EPA 6010	Boron, Dissolved	8530	ug/L	100	05/16/24 11:13	
EPA 6010	Molybdenum, Dissolved	167	ug/L	10.0	05/16/24 13:52	
EPA 6020	Arsenic	3.2	ug/L	1.0	05/11/24 12:11	
EPA 6020	Barium	46.0	ug/L	1.0	05/11/24 12:11	
EPA 6020	Cobalt	5.1	ug/L	1.0	05/11/24 12:11	
EPA 6020	Manganese	4080	ug/L	50.0	05/11/24 12:07	
EPA 903.1	Radium-226	0.108 ± 0.471 (0.896) C:NA T:91%	pCi/L		05/28/24 14:48	
EPA 904.0	Radium-228	0.421 ± 0.363 (0.734) C:91% T:86%	pCi/L		05/23/24 15:49	
Total Radium Calculation	Total Radium	0.529 ± 0.834 (1.63)	pCi/L		05/31/24 11:17	
SM 2320B	Alkalinity, Total as CaCO3	355	mg/L	10.0	05/08/24 20:24	
SM 2540C	Total Dissolved Solids	1620	mg/L	20.0	05/10/24 12:27	
SM 4500-H+B	pH at 25 Degrees C	6.9	Std. Units	0.10	05/14/24 15:17	H3
SM 5310C	Dissolved Organic Carbon	5.2	mg/L	1.0	05/14/24 02:36	
50372469002	**AP-9I**					
EPA 9056	Chloride	128	mg/L	2.5	05/14/24 00:39	
EPA 9056	Fluoride	0.28	mg/L	0.10	05/14/24 00:22	
EPA 9056	Sulfate	1560	mg/L	25.0	05/14/24 00:56	
EPA 6010	Boron	24800	ug/L	100	05/11/24 00:54	
EPA 6010	Calcium	661000	ug/L	5000	05/11/24 01:43	
EPA 6010	Iron	4200	ug/L	100	05/11/24 00:54	
EPA 6010	Lithium	44.0	ug/L	20.0	05/11/24 00:54	
EPA 6010	Magnesium	10300	ug/L	1000	05/11/24 00:54	
EPA 6010	Molybdenum	1600	ug/L	10.0	05/11/24 00:54	
EPA 6010	Potassium	31600	ug/L	1000	05/11/24 00:54	
EPA 6010	Sodium	38100	ug/L	1000	05/11/24 00:54	
EPA 6010	Boron, Dissolved	27500	ug/L	100	05/16/24 11:15	
EPA 6010	Lithium, Dissolved	39.5	ug/L	20.0	05/16/24 11:15	
EPA 6010	Molybdenum, Dissolved	1860	ug/L	10.0	05/16/24 13:54	
EPA 6020	Arsenic	7.3	ug/L	1.0	05/11/24 12:19	
EPA 6020	Barium	31.5	ug/L	1.0	05/11/24 12:19	
EPA 6020	Manganese	2000	ug/L	20.0	05/11/24 12:15	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372469002	**AP-9I**					
EPA 903.1	Radium-226	0.846 ± 1.06 (1.77) C:NA T:91%	pCi/L		05/28/24 14:48	
EPA 904.0	Radium-228	0.669 ± 0.411 (0.774) C:92% T:91%	pCi/L		05/23/24 15:49	
Total Radium Calculation	Total Radium	1.52 ± 1.47 (2.54)	pCi/L		05/31/24 11:17	
SM 2320B	Alkalinity, Total as CaCO3	50.8	mg/L	10.0	05/08/24 20:24	
SM 2540C	Total Dissolved Solids	2330	mg/L	40.0	05/10/24 12:54	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	05/14/24 15:18	H3
EPA 365.1	Phosphate as P04	0.30	mg/L	0.15	05/20/24 19:38	
SM 5310C	Dissolved Organic Carbon	2.3	mg/L	1.0	05/13/24 16:01	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

Sample: AP-9B **Lab ID: 50372469001** Collected: 05/07/24 13:15 Received: 05/08/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**51.5**	mg/L	2.5	0.67	10		05/13/24 18:45	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/13/24 18:28	16984-48-8	
Sulfate	**801**	mg/L	25.0	19.0	100		05/13/24 19:02	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**8040**	ug/L	100	6.2	1	05/09/24 21:49	05/11/24 00:52	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/09/24 21:49	05/11/24 00:52	7440-43-9	
Calcium	**386000**	ug/L	5000	338	5	05/09/24 21:49	05/11/24 01:41	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/09/24 21:49	05/11/24 00:52	7440-47-3	
Iron	**2600**	ug/L	100	30.0	1	05/09/24 21:49	05/11/24 00:52	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/09/24 21:49	05/11/24 00:52	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/09/24 21:49	05/11/24 00:52	7439-93-2	
Magnesium	**60400**	ug/L	1000	33.6	1	05/09/24 21:49	05/11/24 00:52	7439-95-4	
Molybdenum	**148**	ug/L	10.0	0.78	1	05/09/24 21:49	05/11/24 00:52	7439-98-7	
Potassium	**7950**	ug/L	1000	97.8	1	05/09/24 21:49	05/11/24 00:52	7440-09-7	
Sodium	**23900**	ug/L	1000	54.8	1	05/09/24 21:49	05/11/24 00:52	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**8530**	ug/L	100	11.4	1	05/15/24 20:27	05/16/24 11:13	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	05/15/24 20:27	05/16/24 11:13	7439-93-2	
Molybdenum, Dissolved	**167**	ug/L	10.0	1.1	1	05/15/24 20:27	05/16/24 13:52	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	05/10/24 15:02	05/11/24 12:11	7440-36-0	
Arsenic	**3.2**	ug/L	1.0	0.10	1	05/10/24 15:02	05/11/24 12:11	7440-38-2	
Barium	**46.0**	ug/L	1.0	0.062	1	05/10/24 15:02	05/11/24 12:11	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	05/10/24 15:02	05/11/24 12:11	7440-41-7	
Cobalt	**5.1**	ug/L	1.0	0.060	1	05/10/24 15:02	05/11/24 12:11	7440-48-4	
Manganese	**4080**	ug/L	50.0	7.4	50	05/10/24 15:02	05/11/24 12:07	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	05/10/24 15:02	05/11/24 12:11	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	05/10/24 15:02	05/11/24 12:11	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	05/11/24 15:18	05/15/24 06:23	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	05/15/24 19:26	05/16/24 09:39	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

Sample: AP-9B **Lab ID: 50372469001** Collected: 05/07/24 13:15 Received: 05/08/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**355**	mg/L	10.0	10.0	1		05/08/24 20:24		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1620**	mg/L	20.0	20.0	1		05/10/24 12:27		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.9**	Std. Units	0.10	0.10	1		05/14/24 15:17		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/10/24 10:36	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/08/24 21:03	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	05/16/24 12:45	05/20/24 19:37		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**5.2**	mg/L	1.0	0.25	1		05/14/24 02:36		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

Sample: AP-9I **Lab ID: 50372469002** Collected: 05/07/24 14:50 Received: 05/08/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**128**	mg/L	2.5	0.67	10		05/14/24 00:39	16887-00-6	
Fluoride	**0.28**	mg/L	0.10	0.017	1		05/14/24 00:22	16984-48-8	
Sulfate	**1560**	mg/L	25.0	19.0	100		05/14/24 00:56	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**24800**	ug/L	100	6.2	1	05/09/24 21:49	05/11/24 00:54	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/09/24 21:49	05/11/24 00:54	7440-43-9	
Calcium	**661000**	ug/L	5000	338	5	05/09/24 21:49	05/11/24 01:43	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/09/24 21:49	05/11/24 00:54	7440-47-3	
Iron	**4200**	ug/L	100	30.0	1	05/09/24 21:49	05/11/24 00:54	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/09/24 21:49	05/11/24 00:54	7439-92-1	
Lithium	**44.0**	ug/L	20.0	6.8	1	05/09/24 21:49	05/11/24 00:54	7439-93-2	
Magnesium	**10300**	ug/L	1000	33.6	1	05/09/24 21:49	05/11/24 00:54	7439-95-4	
Molybdenum	**1600**	ug/L	10.0	0.78	1	05/09/24 21:49	05/11/24 00:54	7439-98-7	
Potassium	**31600**	ug/L	1000	97.8	1	05/09/24 21:49	05/11/24 00:54	7440-09-7	
Sodium	**38100**	ug/L	1000	54.8	1	05/09/24 21:49	05/11/24 00:54	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**27500**	ug/L	100	11.4	1	05/15/24 20:27	05/16/24 11:15	7440-42-8	
Lithium, Dissolved	**39.5**	ug/L	20.0	5.1	1	05/15/24 20:27	05/16/24 11:15	7439-93-2	
Molybdenum, Dissolved	**1860**	ug/L	10.0	1.1	1	05/15/24 20:27	05/16/24 13:54	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	05/10/24 15:02	05/11/24 12:19	7440-36-0	
Arsenic	**7.3**	ug/L	1.0	0.10	1	05/10/24 15:02	05/11/24 12:19	7440-38-2	
Barium	**31.5**	ug/L	1.0	0.062	1	05/10/24 15:02	05/11/24 12:19	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	05/10/24 15:02	05/11/24 12:19	7440-41-7	
Cobalt	ND	ug/L	1.0	0.060	1	05/10/24 15:02	05/11/24 12:19	7440-48-4	
Manganese	**2000**	ug/L	20.0	3.0	20	05/10/24 15:02	05/11/24 12:15	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	05/10/24 15:02	05/11/24 12:19	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	05/10/24 15:02	05/11/24 12:19	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	05/11/24 15:18	05/15/24 06:15	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	05/15/24 19:26	05/16/24 09:41	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

Sample: AP-9I **Lab ID: 50372469002** Collected: 05/07/24 14:50 Received: 05/08/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**50.8**	mg/L	10.0	10.0	1		05/08/24 20:24		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2330**	mg/L	40.0	40.0	1		05/10/24 12:54		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		05/14/24 15:18		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/10/24 10:36	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/08/24 21:14	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.30**	mg/L	0.15	0.13	1	05/16/24 12:45	05/20/24 19:38		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.3**	mg/L	1.0	0.25	1		05/13/24 16:01		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

QC Batch: 789056
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372469001, 50372469002

METHOD BLANK: 3609805 Matrix: Water
Associated Lab Samples: 50372469001, 50372469002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/13/24 10:28	
Fluoride	mg/L	ND	0.10	0.017	05/13/24 10:28	
Sulfate	mg/L	ND	0.25	0.19	05/13/24 10:28	

LABORATORY CONTROL SAMPLE: 3609806

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	93	80-120	
Fluoride	mg/L	1	0.97	97	80-120	
Sulfate	mg/L	5	4.9	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3609810 3609811

Parameter	Units	50372481002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	4.4	2.5	2.5	6.8	6.8	97	99	80-120	1	15	
Fluoride	mg/L	0.16	1	1	1.2	1.2	99	100	80-120	1	15	
Sulfate	mg/L	49.5	5	5	54.3	54.6	97	102	80-120	0	15	E

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

QC Batch: 790071
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372469001, 50372469002

METHOD BLANK: 3614868 Matrix: Water
Associated Lab Samples: 50372469001, 50372469002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	05/16/24 09:04	

LABORATORY CONTROL SAMPLE: 3614869

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.9	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614870 3614871

Parameter	Units	50372252004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.9	4.9	97	97	75-125	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614872 3614873

Parameter	Units	50372470001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.9	4.9	96	97	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

QC Batch: 788886
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372469001, 50372469002

METHOD BLANK: 3609066 Matrix: Water
Associated Lab Samples: 50372469001, 50372469002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	05/11/24 00:49	
Cadmium	ug/L	ND	2.0	0.60	05/11/24 00:49	
Calcium	ug/L	ND	1000	67.7	05/11/24 00:49	
Chromium	ug/L	ND	10.0	0.42	05/11/24 00:49	
Iron	ug/L	ND	100	30.0	05/11/24 00:49	
Lead	ug/L	ND	10.0	2.5	05/11/24 00:49	
Lithium	ug/L	ND	20.0	6.8	05/11/24 00:49	
Magnesium	ug/L	ND	1000	33.6	05/11/24 00:49	
Molybdenum	ug/L	ND	10.0	0.78	05/11/24 00:49	
Potassium	ug/L	ND	1000	97.8	05/11/24 00:49	
Sodium	ug/L	ND	1000	54.8	05/11/24 00:49	

LABORATORY CONTROL SAMPLE: 3609067

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	936	94	80-120	
Cadmium	ug/L	1000	909	91	80-120	
Calcium	ug/L	10000	9980	100	80-120	
Chromium	ug/L	1000	985	98	80-120	
Iron	ug/L	10000	9560	96	80-120	
Lead	ug/L	1000	892	89	80-120	
Lithium	ug/L	1000	984	98	80-120	
Magnesium	ug/L	10000	9530	95	80-120	
Molybdenum	ug/L	1000	959	96	80-120	
Potassium	ug/L	10000	9770	98	80-120	
Sodium	ug/L	10000	9720	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3609068 3609069

Parameter	Units	50372487001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	ND	1000	1000	1150	1100	108	104	75-125	4	20	
Cadmium	ug/L	ND	1000	1000	1000	971	100	97	75-125	3	20	
Calcium	ug/L	155000	10000	10000	172000	169000	168	135	75-125	2	20	P6
Chromium	ug/L	13.1	1000	1000	1080	1050	107	104	75-125	3	20	
Iron	ug/L	43900	10000	10000	56200	55100	123	112	75-125	2	20	
Lead	ug/L	36.3	1000	1000	978	944	94	91	75-125	4	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3609068 3609069

Parameter	Units	50372487001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	21.8	1000	1000	1090	1080	107	105	75-125	1	20	
Magnesium	ug/L	54300	10000	10000	67200	65800	129	114	75-125	2	20	P6
Molybdenum	ug/L	12.6	1000	1000	1070	1030	105	101	75-125	4	20	
Potassium	ug/L	6190	10000	10000	17800	17700	116	115	75-125	1	20	
Sodium	ug/L	14100	10000	10000	24700	24700	106	106	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

QC Batch: 789952
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372469001, 50372469002

METHOD BLANK: 3614467 Matrix: Water
Associated Lab Samples: 50372469001, 50372469002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	11.4	05/16/24 13:22	
Lithium, Dissolved	ug/L	ND	20.0	5.1	05/16/24 13:22	
Molybdenum, Dissolved	ug/L	ND	10.0	1.1	05/16/24 13:22	

LABORATORY CONTROL SAMPLE: 3614468

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	1050	105	80-120	
Lithium, Dissolved	ug/L	1000	1070	107	80-120	
Molybdenum, Dissolved	ug/L	1000	1100	110	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614469 3614470

Parameter	Units	50372420003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	407	1000	1000	1510	1430	111	103	75-125	5	20	CH
Lithium, Dissolved	ug/L	ND	1000	1000	1070	1030	106	102	75-125	4	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1140	1090	114	108	75-125	5	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

QC Batch: 789097
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372469001, 50372469002

METHOD BLANK: 3610042 Matrix: Water
Associated Lab Samples: 50372469001, 50372469002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.26	05/11/24 10:15	
Arsenic	ug/L	ND	1.0	0.10	05/11/24 10:15	
Barium	ug/L	ND	1.0	0.062	05/11/24 10:15	
Beryllium	ug/L	ND	0.20	0.020	05/11/24 10:15	
Cobalt	ug/L	ND	1.0	0.060	05/11/24 10:15	
Manganese	ug/L	ND	1.0	0.15	05/11/24 10:15	
Selenium	ug/L	ND	1.0	0.36	05/11/24 10:15	
Thallium	ug/L	ND	1.0	0.079	05/11/24 10:15	

LABORATORY CONTROL SAMPLE: 3610043

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	43.3	108	80-120	
Arsenic	ug/L	40	41.0	103	80-120	
Barium	ug/L	40	40.0	100	80-120	
Beryllium	ug/L	40	39.8	100	80-120	
Cobalt	ug/L	40	40.9	102	80-120	
Manganese	ug/L	40	41.7	104	80-120	
Selenium	ug/L	40	41.0	103	80-120	
Thallium	ug/L	40	39.6	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3610044 3610045

Parameter	Units	50372593002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	44.5	44.7	111	111	75-125	0	20	
Arsenic	ug/L	ND	40	40	41.7	42.2	104	105	75-125	1	20	
Barium	ug/L	20.7	40	40	60.0	60.1	98	98	75-125	0	20	
Beryllium	ug/L	ND	40	40	39.9	40.2	100	100	75-125	1	20	
Cobalt	ug/L	ND	40	40	38.4	38.7	95	96	75-125	1	20	
Manganese	ug/L	168	40	40	204	206	88	93	75-125	1	20	
Selenium	ug/L	2.4	40	40	44.3	45.7	105	108	75-125	3	20	
Thallium	ug/L	ND	40	40	39.5	39.8	99	99	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

QC Batch: 789335
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372469001, 50372469002

METHOD BLANK: 3611447 Matrix: Water
Associated Lab Samples: 50372469001, 50372469002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	4.4	05/13/24 12:13	

LABORATORY CONTROL SAMPLE: 3611448

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	401	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3611449 3611450

Parameter	Units	50372488022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	<10.0	400	400	414	408	103	101	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

QC Batch: 788838
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372469001, 50372469002

METHOD BLANK: 3608731 Matrix: Water
Associated Lab Samples: 50372469001, 50372469002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/08/24 20:24	

LABORATORY CONTROL SAMPLE: 3608732

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.9	100	90-110	

SAMPLE DUPLICATE: 3608733

Parameter	Units	50372420001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	318	323	1	20	

SAMPLE DUPLICATE: 3608734

Parameter	Units	50372420003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	242	247	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

QC Batch: 789171
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372469001

METHOD BLANK: 3610459 Matrix: Water
Associated Lab Samples: 50372469001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/10/24 12:20	

LABORATORY CONTROL SAMPLE: 3610460

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	284	95	80-120	

SAMPLE DUPLICATE: 3610461

Parameter	Units	50372424005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	262	257	2	10	

SAMPLE DUPLICATE: 3610462

Parameter	Units	50372424016 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	185	201	8	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

QC Batch: 789172
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372469002

METHOD BLANK: 3610465 Matrix: Water
Associated Lab Samples: 50372469002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/10/24 12:54	

LABORATORY CONTROL SAMPLE: 3610466

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	287	96	80-120	

SAMPLE DUPLICATE: 3610467

Parameter	Units	50372469002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2330	2340	1	10	

SAMPLE DUPLICATE: 3610468

Parameter	Units	50372653001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	529	547	3	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

QC Batch: 789794
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372469001, 50372469002

SAMPLE DUPLICATE: 3613638

Parameter	Units	50372421001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.6	6.6	0	2	H3

SAMPLE DUPLICATE: 3613639

Parameter	Units	50372534001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.2	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

QC Batch: 789189
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372469001, 50372469002

METHOD BLANK: 3610625 Matrix: Water
Associated Lab Samples: 50372469001, 50372469002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/10/24 10:36	

LABORATORY CONTROL SAMPLE: 3610626

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.51	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3610627 3610628

Parameter	Units	50372541001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	0.066J	0.5	0.5	0.53	0.52	93	92	90-110	1	20	

MATRIX SPIKE SAMPLE: 3610629

Parameter	Units	50372421004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.48	96	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

QC Batch: 788852
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372469001, 50372469002

METHOD BLANK: 3608839 Matrix: Water
Associated Lab Samples: 50372469001, 50372469002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/08/24 20:46	

LABORATORY CONTROL SAMPLE: 3608840

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3608841 3608842

Parameter	Units	50372443004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.0	1.0	99	99	90-110	0	20	

MATRIX SPIKE SAMPLE: 3608843

Parameter	Units	50372467001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.0	100	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

QC Batch: 790284
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372469001, 50372469002

METHOD BLANK: 3615992 Matrix: Water
Associated Lab Samples: 50372469001, 50372469002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	05/20/24 21:46	

LABORATORY CONTROL SAMPLE: 3615993

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3615994 3615995

Parameter	Units	50372442001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			3.0	1.4				70		

MATRIX SPIKE SAMPLE: 3615996

Parameter	Units	50372467001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	ND		1.6			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

QC Batch: 789532
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372469001

METHOD BLANK: 3612703 Matrix: Water
Associated Lab Samples: 50372469001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	05/13/24 20:30	

LABORATORY CONTROL SAMPLE: 3612704

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3612705 3612706

Parameter	Units	50372420003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.9	10	10	11.2	10.8	93	89	80-120	4	20	

MATRIX SPIKE SAMPLE: 3612707

Parameter	Units	50372468001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	5.4	10	15.0	96	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

QC Batch: 789533
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372469002

METHOD BLANK: 3612708 Matrix: Water
Associated Lab Samples: 50372469002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	05/13/24 15:22	

LABORATORY CONTROL SAMPLE: 3612709

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.6	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3612710 3612711

Parameter	Units	50372534001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	3.2	10	10	12.6	12.3	93	90	80-120	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3612712 3612713

Parameter	Units	50372541001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.5	10	10	10.6	10.4	91	89	80-120	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

Sample: AP-9B **Lab ID: 50372469001** Collected: 05/07/24 13:15 Received: 05/08/24 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.108 ± 0.471 (0.896) C:NA T:91%**	pCi/L	05/28/24 14:48	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.421 ± 0.363 (0.734) C:91% T:86%**	pCi/L	05/23/24 15:49	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.529 ± 0.834 (1.63)**	pCi/L	05/31/24 11:17	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

Sample: AP-9I **Lab ID: 50372469002** Collected: 05/07/24 14:50 Received: 05/08/24 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.846 ± 1.06 (1.77) C:NA T:91%**	pCi/L	05/28/24 14:48	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.669 ± 0.411 (0.774) C:92% T:91%**	pCi/L	05/23/24 15:49	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.52 ± 1.47 (2.54)**	pCi/L	05/31/24 11:17	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

QC Batch: 667920
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372469001, 50372469002

METHOD BLANK: 3252200 Matrix: Water
Associated Lab Samples: 50372469001, 50372469002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0224 ± 0.279 (0.650) C:97% T:77%	pCi/L	05/23/24 15:47	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

QC Batch: 667919
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372469001, 50372469002

METHOD BLANK: 3252199 Matrix: Water
Associated Lab Samples: 50372469001, 50372469002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.219 (0.445) C:NA T:85%	pCi/L	05/28/24 14:35	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

CH	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P2R3
Pace Project No.: 50372469

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50372469001	**AP-9B**	EPA 9056	789056		
50372469002	**AP-9I**	EPA 9056	789056		
50372469001	**AP-9B**	EPA 3010	788886	EPA 6010	789386
50372469002	**AP-9I**	EPA 3010	788886	EPA 6010	789386
50372469001	**AP-9B**	EPA 3010	789952	EPA 6010	790303
50372469002	**AP-9I**	EPA 3010	789952	EPA 6010	790303
50372469001	**AP-9B**	EPA 200.2	789097	EPA 6020	789382
50372469002	**AP-9I**	EPA 200.2	789097	EPA 6020	789382
50372469001	**AP-9B**	EPA 200.2	789335	EPA 6020	789473
50372469002	**AP-9I**	EPA 200.2	789335	EPA 6020	789473
50372469001	**AP-9B**	EPA 7470	790071	EPA 7470	790266
50372469002	**AP-9I**	EPA 7470	790071	EPA 7470	790266
50372469001	**AP-9B**	EPA 903.1	667919		
50372469002	**AP-9I**	EPA 903.1	667919		
50372469001	**AP-9B**	EPA 904.0	667920		
50372469002	**AP-9I**	EPA 904.0	667920		
50372469001	**AP-9B**	Total Radium Calculation	672363		
50372469002	**AP-9I**	Total Radium Calculation	672363		
50372469001	**AP-9B**	SM 2320B	788838		
50372469002	**AP-9I**	SM 2320B	788838		
50372469001	**AP-9B**	SM 2540C	789171		
50372469002	**AP-9I**	SM 2540C	789172		
50372469001	**AP-9B**	SM 4500-H+B	789794		
50372469002	**AP-9I**	SM 4500-H+B	789794		
50372469001	**AP-9B**	SM 4500-S2-D	789189		
50372469002	**AP-9I**	SM 4500-S2-D	789189		
50372469001	**AP-9B**	EPA 353.2	788852		
50372469002	**AP-9I**	EPA 353.2	788852		
50372469001	**AP-9B**	EPA 365.1	790284	EPA 365.1	790975
50372469002	**AP-9I**	EPA 365.1	790284	EPA 365.1	790975
50372469001	**AP-9B**	SM 5310C	789532		
50372469002	**AP-9I**	SM 5310C	789533		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO# : 50372469

50372469

Pace Analytical
WWW.PACELABS.COM

al Request Document

...ll relevant fields must be completed accurately.

Page : 1 Of 1

Section A — **Required Client Information:**

Company:	Atlas Indianapolis
Address:	7988 Centerpoint Drive Suite 100
	Indianapolis, IN 46256
Email:	mark.breting@oneatlas.com
Phone:	(317)579-4082 Fax:
Requested Due Date:	

Section B — **Required Project Information:**

Report To:	Mark Breting
Copy To:	
Purchase Order #:	
Project Name:	Petersburg May 2024 P2R3
Project #:	P4 R3

Attention:	Accounts Payable - Paula Sedam
Company Name:	Atlas Indianapolis
Address:	
Pace Quote:	
Pace Project Manager:	Will Statz
Pace Profile #:	10498/59

Regulatory Agency

State / Location: IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total Metals 6010/6020/7470	Diss. Metals 6010/6020	DOC by 5310	Alkalinity/pH	Cl, F, SO4 by 9056	TDS by 2540C	Nitrate by 353.2	Phosphate by 365.1	Sulfide by 4500	Rad 226/228 + Sum to PA			Residual Chlorine (Y/N)	
1	AP-9B	WT	G	5/7/24	1:15				10	3	2	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				601
2	AP-9I	WT	G	5-7-24	2:50				"	"	"	"		"					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				602
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Metals* 6010: B, Cd, Cr, Fe, Pb, Mo, Ca, Mg, Na, K, Li (11)	Jacob Rager	5/7/24	3:33	Jay Wallace	5/8/24	745				
6020: Be, Mn, Co, As, Se, Sb, Ba, Tl (8). 7470: Hg (1)	Jay Wallace	5/8/24	10:00	Daniel Pearson Pace	5/8/24	1000	0.0	Y	Y	Y
Diss 6010: B, Mo, Li (3). Diss 6020: Al, Mn (2)										
							TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Jacob Rager

SIGNATURE of SAMPLER: Jacob Rager

DATE Signed: 5-7-24

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: DMP 05/08/24 10:32

1. Courier: ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. Custody Seal on Cooler/Box Present: ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No (leave blank if no seals were present)

3. Thermometer: 1 2 3 4 5 6 7 8 A B C D E F G H

4. Cooler Temperature(s): 0.1/0.0 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. Ice Type: ☑ Wet ☐ Blue ☐ None

7. Was the PM notified of out of temp cooler?: ☐ Yes ☐ No N/A
Cooler temp should be above freezing to 6°C

8. EZ Bottle Order? ☐ Yes ☑ No

If yes but not on COC what is the EZ Bottle Order Number?: N/A

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl. Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis: Nitrate by 353.2	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 12:25			Present	Absent	N/A
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
			Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)		N/A	Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1													1			2	1	2	1	1	1		1				WT	✓	✓		✓
2													1			2	1	2	1	1	1		1				WT	✓	✓		✓
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

July 24, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 08, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50372540001	**MW-19A**	Water	05/08/24 11:45	05/08/24 17:20
50372540002	**MW-19I**	Water	05/08/24 13:10	05/08/24 17:20
50372540003	**MW-19B**	Water	05/08/24 14:10	05/08/24 17:20
50372540004	**AP-9A**	Water	05/08/24 09:05	05/08/24 17:20

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50372540001	**MW-19A**	EPA 9056	ADM	3	PASI-I
		EPA 6010	NWB	11	PASI-I
		EPA 6010	NWB	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	DMT	1	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50372540002	**MW-19I**	EPA 9056	ADM	3	PASI-I
		EPA 6010	NWB	11	PASI-I
		EPA 6010	NWB	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	DMT	1	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50372540003	**MW-19B**	EPA 9056	ADM	3	PASI-I
		EPA 6010	NWB	11	PASI-I
		EPA 6010	NWB	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	DMT	1	PASI-I

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50372540004	**AP-9A**	EPA 9056	ADM	3	PASI-I
		EPA 6010	NWB	11	PASI-I
		EPA 6010	NWB	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	DMT	1	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372540001	**MW-19A**					
EPA 9056	Chloride	123	mg/L	2.5	05/13/24 14:18	
EPA 9056	Sulfate	1390	mg/L	25.0	05/13/24 14:35	
EPA 6010	Boron	24500	ug/L	100	05/14/24 10:19	
EPA 6010	Calcium	566000	ug/L	5000	05/14/24 14:19	
EPA 6010	Iron	8540	ug/L	100	05/14/24 10:19	
EPA 6010	Magnesium	25000	ug/L	1000	05/14/24 10:19	
EPA 6010	Molybdenum	822	ug/L	10.0	05/14/24 10:19	
EPA 6010	Potassium	12700	ug/L	1000	05/14/24 10:19	
EPA 6010	Sodium	45300	ug/L	1000	05/14/24 10:19	
EPA 6010	Boron, Dissolved	26200	ug/L	100	05/16/24 11:16	
EPA 6010	Magnesium, Dissolved	26600	ug/L	1000	05/16/24 11:16	
EPA 6010	Molybdenum, Dissolved	890	ug/L	10.0	05/16/24 13:56	
EPA 6010	Potassium, Dissolved	13900	ug/L	1000	05/16/24 11:16	
EPA 6020	Barium	31.2	ug/L	1.0	05/13/24 19:00	
EPA 6020	Manganese	1790	ug/L	20.0	05/13/24 22:57	
EPA 903.1	Radium-226	0.728 ± 0.509 (0.615) C:NA T:85%	pCi/L		05/29/24 16:09	
EPA 904.0	Radium-228	1.46 ± 0.523 (0.754) C:78% T:82%	pCi/L		05/28/24 11:36	
Total Radium Calculation	Total Radium	2.19 ± 1.03 (1.37)	pCi/L		06/03/24 15:22	
SM 2320B	Alkalinity, Total as CaCO3	114	mg/L	10.0	05/09/24 20:34	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	114	mg/L	10.0	05/09/24 20:34	
SM 2540C	Total Dissolved Solids	2330	mg/L	20.0	05/10/24 11:58	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	05/14/24 16:04	H3
EPA 365.1	Phosphate as P04	0.27	mg/L	0.15	05/20/24 20:47	
SM 5310C	Dissolved Organic Carbon	2.1	mg/L	1.0	05/13/24 17:33	
50372540002	**MW-19I**					
EPA 9056	Chloride	9.8	mg/L	0.25	05/13/24 12:40	
EPA 9056	Sulfate	52.6	mg/L	2.5	05/13/24 12:56	
EPA 6010	Boron	712	ug/L	100	05/14/24 10:25	
EPA 6010	Calcium	115000	ug/L	1000	05/14/24 10:25	
EPA 6010	Magnesium	26300	ug/L	1000	05/14/24 10:25	
EPA 6010	Sodium	7840	ug/L	1000	05/14/24 10:25	
EPA 6010	Boron, Dissolved	832	ug/L	100	05/16/24 11:18	
EPA 6010	Magnesium, Dissolved	28300	ug/L	1000	05/16/24 11:18	
EPA 6020	Barium	64.0	ug/L	1.0	05/13/24 19:03	
EPA 6020	Cobalt	1.6	ug/L	1.0	05/13/24 19:03	
EPA 6020	Manganese	2090	ug/L	20.0	05/13/24 23:00	
EPA 903.1	Radium-226	0.424 ± 0.572 (0.961) C:NA T:85%	pCi/L		05/29/24 16:09	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372540002	**MW-19I**					
EPA 904.0	Radium-228	4.11 ± 1.00 (0.889) C:63% T:88%	pCi/L		05/28/24 11:36	
Total Radium Calculation	Total Radium	4.53 ± 1.57 (1.85)	pCi/L		06/03/24 15:22	
SM 2320B	Alkalinity, Total as CaCO3	347	mg/L	10.0	05/09/24 20:34	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	347	mg/L	10.0	05/09/24 20:34	
SM 2540C	Total Dissolved Solids	411	mg/L	10.0	05/10/24 11:58	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	05/14/24 16:06	H3
SM 5310C	Dissolved Organic Carbon	1.4	mg/L	1.0	05/13/24 20:01	
50372540003	**MW-19B**					
EPA 9056	Chloride	7.3	mg/L	0.25	05/13/24 14:51	
EPA 9056	Fluoride	0.11	mg/L	0.10	05/13/24 14:51	
EPA 9056	Sulfate	47.2	mg/L	2.5	05/13/24 15:08	
EPA 6010	Boron	390	ug/L	100	05/14/24 10:26	
EPA 6010	Calcium	102000	ug/L	1000	05/14/24 10:26	
EPA 6010	Magnesium	20500	ug/L	1000	05/14/24 10:26	
EPA 6010	Potassium	1780	ug/L	1000	05/14/24 10:26	
EPA 6010	Sodium	6520	ug/L	1000	05/14/24 10:26	
EPA 6010	Boron, Dissolved	449	ug/L	100	05/16/24 11:25	
EPA 6010	Magnesium, Dissolved	22500	ug/L	1000	05/16/24 11:25	
EPA 6010	Potassium, Dissolved	2070	ug/L	1000	05/16/24 11:25	
EPA 6020	Barium	58.6	ug/L	1.0	05/13/24 19:07	
EPA 6020	Manganese	3.1	ug/L	1.0	05/13/24 19:07	
EPA 6020	Selenium	2.6	ug/L	1.0	05/13/24 19:07	
EPA 903.1	Radium-226	0.0621 ± 0.283 (0.457) C:NA T:89%	pCi/L		05/29/24 16:09	
EPA 904.0	Radium-228	0.00793 ± 0.355 (0.824) C:79% T:85%	pCi/L		05/28/24 15:23	
Total Radium Calculation	Total Radium	0.0700 ± 0.638 (1.28)	pCi/L		06/03/24 15:22	
SM 2320B	Alkalinity, Total as CaCO3	299	mg/L	10.0	05/09/24 20:34	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	299	mg/L	10.0	05/09/24 20:34	
SM 2540C	Total Dissolved Solids	357	mg/L	10.0	05/10/24 11:58	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	05/14/24 16:07	H3
EPA 353.2	Nitrogen, Nitrate	4.2	mg/L	0.10	05/08/24 21:37	
EPA 365.1	Phosphate as P04	0.16	mg/L	0.15	05/20/24 20:48	
SM 5310C	Dissolved Organic Carbon	1.3	mg/L	1.0	05/13/24 20:26	
50372540004	**AP-9A**					
EPA 9056	Chloride	196	mg/L	2.5	05/13/24 15:40	
EPA 9056	Fluoride	0.21	mg/L	0.10	05/13/24 15:24	
EPA 9056	Sulfate	1710	mg/L	25.0	05/13/24 15:57	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372540004	**AP-9A**					
EPA 6010	Boron	34100	ug/L	100	05/14/24 10:28	
EPA 6010	Calcium	702000	ug/L	5000	05/14/24 14:21	
EPA 6010	Iron	5580	ug/L	100	05/14/24 10:28	
EPA 6010	Magnesium	13400	ug/L	1000	05/14/24 10:28	
EPA 6010	Molybdenum	1540	ug/L	10.0	05/14/24 10:28	
EPA 6010	Potassium	33300	ug/L	1000	05/14/24 10:28	
EPA 6010	Sodium	41900	ug/L	1000	05/14/24 10:28	
EPA 6010	Boron, Dissolved	37100	ug/L	100	05/16/24 11:27	
EPA 6010	Lithium, Dissolved	22.9	ug/L	20.0	05/16/24 11:27	
EPA 6010	Magnesium, Dissolved	14300	ug/L	1000	05/16/24 11:27	
EPA 6010	Molybdenum, Dissolved	1650	ug/L	10.0	05/16/24 14:29	
EPA 6010	Potassium, Dissolved	35800	ug/L	1000	05/16/24 11:27	
EPA 6020	Arsenic	1.4	ug/L	1.0	05/13/24 19:11	
EPA 6020	Barium	38.7	ug/L	1.0	05/13/24 19:11	
EPA 6020	Manganese	1500	ug/L	10.0	05/13/24 23:04	
EPA 903.1	Radium-226	-0.247 ± 0.485 (1.08) C:NA T:91%	pCi/L		05/30/24 13:12	
EPA 904.0	Radium-228	1.02 ± 0.428 (0.681) C:85% T:90%	pCi/L		05/28/24 15:21	
Total Radium Calculation	Total Radium	1.02 ± 0.913 (1.76)	pCi/L		06/03/24 15:28	
SM 2320B	Alkalinity, Total as CaCO3	68.4	mg/L	10.0	05/09/24 20:34	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	68.4	mg/L	10.0	05/09/24 20:34	
SM 2540C	Total Dissolved Solids	2860	mg/L	40.0	05/10/24 12:00	
SM 4500-H+B	pH at 25 Degrees C	6.3	Std. Units	0.10	05/14/24 16:47	H3
EPA 365.1	Phosphate as P04	0.36	mg/L	0.15	05/20/24 20:49	
SM 5310C	Dissolved Organic Carbon	2.3	mg/L	1.0	05/13/24 20:47	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

Sample: MW-19A **Lab ID: 50372540001** Collected: 05/08/24 11:45 Received: 05/08/24 17:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**123**	mg/L	2.5	0.67	10		05/13/24 14:18	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/13/24 14:02	16984-48-8	
Sulfate	**1390**	mg/L	25.0	19.0	100		05/13/24 14:35	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**24500**	ug/L	100	11.4	1	05/10/24 07:55	05/14/24 10:19	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	05/10/24 07:55	05/14/24 10:19	7440-43-9	
Calcium	**566000**	ug/L	5000	284	5	05/10/24 07:55	05/14/24 14:19	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	05/10/24 07:55	05/14/24 10:19	7440-47-3	
Iron	**8540**	ug/L	100	18.1	1	05/10/24 07:55	05/14/24 10:19	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	05/10/24 07:55	05/14/24 10:19	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	05/10/24 07:55	05/14/24 10:19	7439-93-2	
Magnesium	**25000**	ug/L	1000	32.8	1	05/10/24 07:55	05/14/24 10:19	7439-95-4	
Molybdenum	**822**	ug/L	10.0	1.1	1	05/10/24 07:55	05/14/24 10:19	7439-98-7	
Potassium	**12700**	ug/L	1000	120	1	05/10/24 07:55	05/14/24 10:19	7440-09-7	
Sodium	**45300**	ug/L	1000	48.2	1	05/10/24 07:55	05/14/24 10:19	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**26200**	ug/L	100	11.4	1	05/15/24 20:27	05/16/24 11:16	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	05/15/24 20:27	05/16/24 11:16	7439-93-2	
Magnesium, Dissolved	**26600**	ug/L	1000	32.8	1	05/15/24 20:27	05/16/24 11:16	7439-95-4	
Molybdenum, Dissolved	**890**	ug/L	10.0	1.1	1	05/15/24 20:27	05/16/24 13:56	7439-98-7	
Potassium, Dissolved	**13900**	ug/L	1000	120	1	05/15/24 20:27	05/16/24 11:16	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.044	1	05/11/24 15:18	05/13/24 19:00	7440-36-0	
Arsenic	ND	ug/L	1.0	0.064	1	05/11/24 15:18	05/13/24 19:00	7440-38-2	
Barium	**31.2**	ug/L	1.0	0.067	1	05/11/24 15:18	05/13/24 19:00	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	05/11/24 15:18	05/13/24 19:00	7440-41-7	
Cobalt	ND	ug/L	1.0	0.024	1	05/11/24 15:18	05/13/24 19:00	7440-48-4	
Manganese	**1790**	ug/L	20.0	0.86	20	05/11/24 15:18	05/13/24 22:57	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	05/11/24 15:18	05/13/24 19:00	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	05/11/24 15:18	05/13/24 19:00	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	05/11/24 15:18	05/13/24 20:12	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	05/19/24 19:50	05/20/24 08:35	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

Sample: MW-19A **Lab ID: 50372540001** Collected: 05/08/24 11:45 Received: 05/08/24 17:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**114**	mg/L	10.0	10.0	1		05/09/24 20:34		
Alkalinity,Bicarbonate (CaCO3)	**114**	mg/L	10.0	10.0	1		05/09/24 20:34		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/09/24 20:34		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2330**	mg/L	20.0	20.0	1		05/10/24 11:58		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		05/14/24 16:04		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/10/24 10:36	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/08/24 21:33	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.27**	mg/L	0.15	0.13	1	05/17/24 10:00	05/20/24 20:47		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.1**	mg/L	1.0	0.25	1		05/13/24 17:33		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

Sample: MW-19I **Lab ID: 50372540002** Collected: 05/08/24 13:10 Received: 05/08/24 17:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**9.8**	mg/L	0.25	0.067	1		05/13/24 12:40	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/13/24 12:40	16984-48-8	
Sulfate	**52.6**	mg/L	2.5	1.9	10		05/13/24 12:56	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**712**	ug/L	100	11.4	1	05/10/24 07:55	05/14/24 10:25	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	05/10/24 07:55	05/14/24 10:25	7440-43-9	
Calcium	**115000**	ug/L	1000	56.7	1	05/10/24 07:55	05/14/24 10:25	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	05/10/24 07:55	05/14/24 10:25	7440-47-3	
Iron	ND	ug/L	100	18.1	1	05/10/24 07:55	05/14/24 10:25	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	05/10/24 07:55	05/14/24 10:25	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	05/10/24 07:55	05/14/24 10:25	7439-93-2	
Magnesium	**26300**	ug/L	1000	32.8	1	05/10/24 07:55	05/14/24 10:25	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	05/10/24 07:55	05/14/24 10:25	7439-98-7	
Potassium	ND	ug/L	1000	120	1	05/10/24 07:55	05/14/24 10:25	7440-09-7	
Sodium	**7840**	ug/L	1000	48.2	1	05/10/24 07:55	05/14/24 10:25	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**832**	ug/L	100	11.4	1	05/15/24 20:27	05/16/24 11:18	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	05/15/24 20:27	05/16/24 11:18	7439-93-2	
Magnesium, Dissolved	**28300**	ug/L	1000	32.8	1	05/15/24 20:27	05/16/24 11:18	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	05/15/24 20:27	05/16/24 13:58	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	120	1	05/15/24 20:27	05/16/24 11:18	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.044	1	05/11/24 15:18	05/13/24 19:03	7440-36-0	
Arsenic	ND	ug/L	1.0	0.064	1	05/11/24 15:18	05/13/24 19:03	7440-38-2	
Barium	**64.0**	ug/L	1.0	0.067	1	05/11/24 15:18	05/13/24 19:03	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	05/11/24 15:18	05/13/24 19:03	7440-41-7	
Cobalt	**1.6**	ug/L	1.0	0.024	1	05/11/24 15:18	05/13/24 19:03	7440-48-4	
Manganese	**2090**	ug/L	20.0	0.86	20	05/11/24 15:18	05/13/24 23:00	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	05/11/24 15:18	05/13/24 19:03	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	05/11/24 15:18	05/13/24 19:03	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	05/11/24 15:18	05/13/24 20:16	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	05/19/24 19:50	05/20/24 08:38	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

Sample: MW-19I **Lab ID: 50372540002** Collected: 05/08/24 13:10 Received: 05/08/24 17:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**347**	mg/L	10.0	10.0	1		05/09/24 20:34		
Alkalinity,Bicarbonate (CaCO3)	**347**	mg/L	10.0	10.0	1		05/09/24 20:34		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/09/24 20:34		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**411**	mg/L	10.0	10.0	1		05/10/24 11:58		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		05/14/24 16:06		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/10/24 11:52	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/08/24 21:35	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	05/17/24 10:00	05/20/24 20:48		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.4**	mg/L	1.0	0.25	1		05/13/24 20:01		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

Sample: MW-19B **Lab ID: 50372540003** Collected: 05/08/24 14:10 Received: 05/08/24 17:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**7.3**	mg/L	0.25	0.067	1		05/13/24 14:51	16887-00-6	
Fluoride	**0.11**	mg/L	0.10	0.017	1		05/13/24 14:51	16984-48-8	
Sulfate	**47.2**	mg/L	2.5	1.9	10		05/13/24 15:08	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**390**	ug/L	100	11.4	1	05/10/24 07:55	05/14/24 10:26	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	05/10/24 07:55	05/14/24 10:26	7440-43-9	
Calcium	**102000**	ug/L	1000	56.7	1	05/10/24 07:55	05/14/24 10:26	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	05/10/24 07:55	05/14/24 10:26	7440-47-3	
Iron	ND	ug/L	100	18.1	1	05/10/24 07:55	05/14/24 10:26	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	05/10/24 07:55	05/14/24 10:26	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	05/10/24 07:55	05/14/24 10:26	7439-93-2	
Magnesium	**20500**	ug/L	1000	32.8	1	05/10/24 07:55	05/14/24 10:26	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	05/10/24 07:55	05/14/24 10:26	7439-98-7	
Potassium	**1780**	ug/L	1000	120	1	05/10/24 07:55	05/14/24 10:26	7440-09-7	
Sodium	**6520**	ug/L	1000	48.2	1	05/10/24 07:55	05/14/24 10:26	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**449**	ug/L	100	11.4	1	05/15/24 20:27	05/16/24 11:25	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	05/15/24 20:27	05/16/24 11:25	7439-93-2	
Magnesium, Dissolved	**22500**	ug/L	1000	32.8	1	05/15/24 20:27	05/16/24 11:25	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	05/15/24 20:27	05/16/24 14:27	7439-98-7	
Potassium, Dissolved	**2070**	ug/L	1000	120	1	05/15/24 20:27	05/16/24 11:25	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.044	1	05/11/24 15:18	05/13/24 19:07	7440-36-0	
Arsenic	ND	ug/L	1.0	0.064	1	05/11/24 15:18	05/13/24 19:07	7440-38-2	
Barium	**58.6**	ug/L	1.0	0.067	1	05/11/24 15:18	05/13/24 19:07	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	05/11/24 15:18	05/13/24 19:07	7440-41-7	
Cobalt	ND	ug/L	1.0	0.024	1	05/11/24 15:18	05/13/24 19:07	7440-48-4	
Manganese	**3.1**	ug/L	1.0	0.043	1	05/11/24 15:18	05/13/24 19:07	7439-96-5	
Selenium	**2.6**	ug/L	1.0	0.23	1	05/11/24 15:18	05/13/24 19:07	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	05/11/24 15:18	05/13/24 19:07	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	05/11/24 15:18	05/13/24 20:27	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	05/19/24 19:50	05/20/24 08:40	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

Sample: MW-19B **Lab ID: 50372540003** Collected: 05/08/24 14:10 Received: 05/08/24 17:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**299**	mg/L	10.0	10.0	1		05/09/24 20:34		
Alkalinity,Bicarbonate (CaCO3)	**299**	mg/L	10.0	10.0	1		05/09/24 20:34		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/09/24 20:34		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**357**	mg/L	10.0	10.0	1		05/10/24 11:58		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		05/14/24 16:07		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/10/24 11:52	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**4.2**	mg/L	0.10	0.013	1		05/08/24 21:37	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.16**	mg/L	0.15	0.13	1	05/17/24 10:00	05/20/24 20:48		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.3**	mg/L	1.0	0.25	1		05/13/24 20:26		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

Sample: AP-9A **Lab ID: 50372540004** Collected: 05/08/24 09:05 Received: 05/08/24 17:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**196**	mg/L	2.5	0.67	10		05/13/24 15:40	16887-00-6	
Fluoride	**0.21**	mg/L	0.10	0.017	1		05/13/24 15:24	16984-48-8	
Sulfate	**1710**	mg/L	25.0	19.0	100		05/13/24 15:57	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**34100**	ug/L	100	11.4	1	05/10/24 07:55	05/14/24 10:28	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	05/10/24 07:55	05/14/24 10:28	7440-43-9	
Calcium	**702000**	ug/L	5000	284	5	05/10/24 07:55	05/14/24 14:21	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	05/10/24 07:55	05/14/24 10:28	7440-47-3	
Iron	**5580**	ug/L	100	18.1	1	05/10/24 07:55	05/14/24 10:28	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	05/10/24 07:55	05/14/24 10:28	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	05/10/24 07:55	05/14/24 10:28	7439-93-2	
Magnesium	**13400**	ug/L	1000	32.8	1	05/10/24 07:55	05/14/24 10:28	7439-95-4	
Molybdenum	**1540**	ug/L	10.0	1.1	1	05/10/24 07:55	05/14/24 10:28	7439-98-7	
Potassium	**33300**	ug/L	1000	120	1	05/10/24 07:55	05/14/24 10:28	7440-09-7	
Sodium	**41900**	ug/L	1000	48.2	1	05/10/24 07:55	05/14/24 10:28	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**37100**	ug/L	100	11.4	1	05/15/24 20:27	05/16/24 11:27	7440-42-8	
Lithium, Dissolved	**22.9**	ug/L	20.0	5.1	1	05/15/24 20:27	05/16/24 11:27	7439-93-2	
Magnesium, Dissolved	**14300**	ug/L	1000	32.8	1	05/15/24 20:27	05/16/24 11:27	7439-95-4	
Molybdenum, Dissolved	**1650**	ug/L	10.0	1.1	1	05/15/24 20:27	05/16/24 14:29	7439-98-7	
Potassium, Dissolved	**35800**	ug/L	1000	120	1	05/15/24 20:27	05/16/24 11:27	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.044	1	05/11/24 15:18	05/13/24 19:11	7440-36-0	
Arsenic	**1.4**	ug/L	1.0	0.064	1	05/11/24 15:18	05/13/24 19:11	7440-38-2	
Barium	**38.7**	ug/L	1.0	0.067	1	05/11/24 15:18	05/13/24 19:11	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	05/11/24 15:18	05/13/24 19:11	7440-41-7	
Cobalt	ND	ug/L	1.0	0.024	1	05/11/24 15:18	05/13/24 19:11	7440-48-4	
Manganese	**1500**	ug/L	10.0	0.43	10	05/11/24 15:18	05/13/24 23:04	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	05/11/24 15:18	05/13/24 19:11	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	05/11/24 15:18	05/13/24 19:11	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	05/11/24 15:18	05/13/24 20:31	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	05/19/24 19:50	05/20/24 08:42	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

Sample: AP-9A **Lab ID: 50372540004** Collected: 05/08/24 09:05 Received: 05/08/24 17:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**68.4**	mg/L	10.0	10.0	1		05/09/24 20:34		
Alkalinity,Bicarbonate (CaCO3)	**68.4**	mg/L	10.0	10.0	1		05/09/24 20:34		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/09/24 20:34		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2860**	mg/L	40.0	40.0	1		05/10/24 12:00		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.3**	Std. Units	0.10	0.10	1		05/14/24 16:47		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/10/24 12:56	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/08/24 21:31	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.36**	mg/L	0.15	0.13	1	05/17/24 10:00	05/20/24 20:49		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.3**	mg/L	1.0	0.25	1		05/13/24 20:47		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

QC Batch: 789056 | Analysis Method: EPA 9056
QC Batch Method: EPA 9056 | Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372540001, 50372540002, 50372540003, 50372540004

METHOD BLANK: 3609805 Matrix: Water
Associated Lab Samples: 50372540001, 50372540002, 50372540003, 50372540004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/13/24 10:28	
Fluoride	mg/L	ND	0.10	0.017	05/13/24 10:28	
Sulfate	mg/L	ND	0.25	0.19	05/13/24 10:28	

LABORATORY CONTROL SAMPLE: 3609806

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	93	80-120	
Fluoride	mg/L	1	0.97	97	80-120	
Sulfate	mg/L	5	4.9	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3609810 3609811

Parameter	Units	50372481002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	4.4	2.5	2.5	6.8	6.8	97	99	80-120	1	15	
Fluoride	mg/L	0.16	1	1	1.2	1.2	99	100	80-120	1	15	
Sulfate	mg/L	49.5	5	5	54.3	54.6	97	102	80-120	0	15	E

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

QC Batch: 790072
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372540001, 50372540002, 50372540003, 50372540004

METHOD BLANK: 3614874 Matrix: Water
Associated Lab Samples: 50372540001, 50372540002, 50372540003, 50372540004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	05/20/24 07:58	

LABORATORY CONTROL SAMPLE: 3614875

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614876 3614877

Parameter	Units	50372487001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.8	4.8	96	96	75-125	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614878 3614879

Parameter	Units	50372541001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.8	4.9	96	98	75-125	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614880 3614881

Parameter	Units	50372541002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.7	5.0	94	99	75-125	5	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

QC Batch: 789101
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372540001, 50372540002, 50372540003, 50372540004

METHOD BLANK: 3610081 Matrix: Water
Associated Lab Samples: 50372540001, 50372540002, 50372540003, 50372540004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	11.4	05/14/24 09:41	
Cadmium	ug/L	ND	2.0	0.74	05/14/24 09:41	
Calcium	ug/L	ND	1000	56.7	05/14/24 09:41	
Chromium	ug/L	ND	10.0	1.4	05/14/24 09:41	
Iron	ug/L	ND	100	18.1	05/14/24 09:41	
Lead	ug/L	ND	10.0	4.0	05/14/24 09:41	
Lithium	ug/L	ND	20.0	5.1	05/14/24 09:41	
Magnesium	ug/L	ND	1000	32.8	05/14/24 09:41	
Molybdenum	ug/L	ND	10.0	1.1	05/14/24 09:41	
Potassium	ug/L	ND	1000	120	05/14/24 09:41	
Sodium	ug/L	ND	1000	48.2	05/14/24 09:41	

LABORATORY CONTROL SAMPLE: 3610082

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	975	97	80-120	
Cadmium	ug/L	1000	958	96	80-120	
Calcium	ug/L	10000	10200	102	80-120	
Chromium	ug/L	1000	999	100	80-120	
Iron	ug/L	10000	9760	98	80-120	
Lead	ug/L	1000	938	94	80-120	
Lithium	ug/L	1000	1010	101	80-120	
Magnesium	ug/L	10000	9810	98	80-120	
Molybdenum	ug/L	1000	1040	104	80-120	
Potassium	ug/L	10000	9790	98	80-120	
Sodium	ug/L	10000	9840	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3610083 3610084

Parameter	Units	50372675001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	ND	1000	1000	1060	1040	101	100	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	973	963	97	96	75-125	1	20	
Calcium	ug/L	83800	10000	10000	92600	92300	88	85	75-125	0	20	
Chromium	ug/L	4.1	1000	1000	1010	998	101	99	75-125	1	20	
Iron	ug/L	ND	10000	10000	9820	9670	98	97	75-125	1	20	
Lead	ug/L	ND	1000	1000	930	918	93	92	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3610083 3610084

Parameter	Units	50372675001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	ND	1000	1000	1030	1030	102	102	75-125	0	20	
Magnesium	ug/L	19600	10000	10000	29200	28900	96	93	75-125	1	20	
Molybdenum	ug/L	ND	1000	1000	1070	1060	107	106	75-125	1	20	
Potassium	ug/L	2270	10000	10000	12200	12300	99	100	75-125	1	20	
Sodium	ug/L	24600	10000	10000	33900	33900	94	93	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

QC Batch: 789952
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372540001, 50372540002, 50372540003, 50372540004

METHOD BLANK: 3614467 Matrix: Water
Associated Lab Samples: 50372540001, 50372540002, 50372540003, 50372540004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	11.4	05/16/24 13:22	
Lithium, Dissolved	ug/L	ND	20.0	5.1	05/16/24 13:22	
Magnesium, Dissolved	ug/L	ND	1000	32.8	05/16/24 13:22	
Molybdenum, Dissolved	ug/L	ND	10.0	1.1	05/16/24 13:22	
Potassium, Dissolved	ug/L	ND	1000	120	05/16/24 13:22	

LABORATORY CONTROL SAMPLE: 3614468

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	1050	105	80-120	
Lithium, Dissolved	ug/L	1000	1070	107	80-120	
Magnesium, Dissolved	ug/L	10000	10600	106	80-120	
Molybdenum, Dissolved	ug/L	1000	1100	110	80-120	
Potassium, Dissolved	ug/L	10000	10700	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614469 3614470

Parameter	Units	50372420003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	407	1000	1000	1510	1430	111	103	75-125	5	20	CH
Lithium, Dissolved	ug/L	ND	1000	1000	1070	1030	106	102	75-125	4	20	
Magnesium, Dissolved	ug/L	26800	10000	10000	37500	36500	108	97	75-125	3	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1140	1090	114	108	75-125	5	20	
Potassium, Dissolved	ug/L	3560	10000	10000	14200	13800	106	102	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

QC Batch: 789337
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372540001, 50372540002, 50372540003, 50372540004

METHOD BLANK: 3611473 Matrix: Water
Associated Lab Samples: 50372540001, 50372540002, 50372540003, 50372540004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.044	05/13/24 17:51	
Arsenic	ug/L	ND	1.0	0.064	05/13/24 17:51	
Barium	ug/L	ND	1.0	0.067	05/13/24 17:51	
Beryllium	ug/L	ND	0.20	0.026	05/13/24 17:51	
Cobalt	ug/L	ND	1.0	0.024	05/13/24 17:51	
Manganese	ug/L	ND	1.0	0.043	05/13/24 17:51	
Selenium	ug/L	ND	1.0	0.23	05/13/24 17:51	
Thallium	ug/L	ND	1.0	0.042	05/13/24 17:51	

LABORATORY CONTROL SAMPLE: 3611474

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.0	105	80-120	
Arsenic	ug/L	40	39.3	98	80-120	
Barium	ug/L	40	39.2	98	80-120	
Beryllium	ug/L	40	40.9	102	80-120	
Cobalt	ug/L	40	41.6	104	80-120	
Manganese	ug/L	40	41.8	104	80-120	
Selenium	ug/L	40	40.9	102	80-120	
Thallium	ug/L	40	41.8	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3611475 3611476

Parameter	Units	50372812005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	42.0	41.9	105	104	75-125	0	20	
Arsenic	ug/L	1.4	40	40	38.8	39.8	93	96	75-125	2	20	
Barium	ug/L	10.1	40	40	48.7	49.8	97	99	75-125	2	20	
Beryllium	ug/L	ND	40	40	37.7	38.5	94	96	75-125	2	20	
Cobalt	ug/L	ND	40	40	39.0	38.6	97	95	75-125	1	20	
Manganese	ug/L	37.1	40	40	75.9	76.4	97	98	75-125	1	20	
Selenium	ug/L	ND	40	40	38.4	40.3	95	99	75-125	5	20	
Thallium	ug/L	ND	40	40	41.8	42.3	105	106	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

QC Batch: 789338
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372540001, 50372540002, 50372540003, 50372540004

METHOD BLANK: 3611479 Matrix: Water
Associated Lab Samples: 50372540001, 50372540002, 50372540003, 50372540004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	4.4	05/13/24 20:05	

LABORATORY CONTROL SAMPLE: 3611480

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	439	110	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3611481 3611482

Parameter	Units	50372558008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	<10.0	400	400	432	424	107	105	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

QC Batch: 789095
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372540001, 50372540002, 50372540003, 50372540004

METHOD BLANK: 3610034 Matrix: Water
Associated Lab Samples: 50372540001, 50372540002, 50372540003, 50372540004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/09/24 20:34	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	05/09/24 20:34	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	05/09/24 20:34	

LABORATORY CONTROL SAMPLE: 3610035

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	47.5	95	90-110	

SAMPLE DUPLICATE: 3610036

Parameter	Units	50372534001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	388	394	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	388	394	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3610037

Parameter	Units	50372541001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	360	366	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	360	366	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

QC Batch: 789175
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372540001, 50372540002, 50372540003, 50372540004

METHOD BLANK: 3610489 Matrix: Water
Associated Lab Samples: 50372540001, 50372540002, 50372540003, 50372540004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/10/24 11:56	

LABORATORY CONTROL SAMPLE: 3610490

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	293	98	80-120	

SAMPLE DUPLICATE: 3610491

Parameter	Units	50372534001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	614	613	0	10	

SAMPLE DUPLICATE: 3610492

Parameter	Units	50372541002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	589	614	4	10	

SAMPLE DUPLICATE: 3610493

Parameter	Units	50372543009 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	592	624	5	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

QC Batch: 789794
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372540001, 50372540002, 50372540003

SAMPLE DUPLICATE: 3613638

Parameter	Units	50372421001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.6	6.6	0	2	H3

SAMPLE DUPLICATE: 3613639

Parameter	Units	50372534001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.2	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

QC Batch: 789804
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50372540004

SAMPLE DUPLICATE: 3613670

Parameter	Units	50372541001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.9	7.0	1	2	H3

SAMPLE DUPLICATE: 3613671

Parameter	Units	50372541002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.9	7.0	1	2	H3

SAMPLE DUPLICATE: 3613672

Parameter	Units	50372543009 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units		6.9			H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

QC Batch: 789189
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372540001

METHOD BLANK: 3610625 Matrix: Water
Associated Lab Samples: 50372540001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/10/24 10:36	

LABORATORY CONTROL SAMPLE: 3610626

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.51	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3610627 3610628

Parameter	Units	50372541001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	0.066J	0.5	0.5	0.53	0.52	93	92	90-110	1	20	

MATRIX SPIKE SAMPLE: 3610629

Parameter	Units	50372421004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.48	96	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

QC Batch: 789191
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372540002, 50372540003

METHOD BLANK: 3610638 Matrix: Water
Associated Lab Samples: 50372540002, 50372540003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/10/24 11:52	

LABORATORY CONTROL SAMPLE: 3610639

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.50	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3610640 3610641

Parameter	Units	50372534001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.49	0.48	98	97	90-110	1	20	

MATRIX SPIKE SAMPLE: 3610642

Parameter	Units	50372610002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.52	104	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

QC Batch: 789192
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372540004

METHOD BLANK: 3610651 Matrix: Water
Associated Lab Samples: 50372540004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/10/24 12:56	

LABORATORY CONTROL SAMPLE: 3610652

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.49	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3610653 3610654

Parameter	Units	50372541002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.51	0.51	102	102	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3610655 3610656

Parameter	Units	50372593002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.47	0.47	93	94	90-110	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

QC Batch: 788852 | Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 | Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372540001, 50372540002, 50372540003, 50372540004

METHOD BLANK: 3608839 Matrix: Water
Associated Lab Samples: 50372540001, 50372540002, 50372540003, 50372540004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/08/24 20:46	

LABORATORY CONTROL SAMPLE: 3608840

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3608841 3608842

Parameter	Units	50372443004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.0	1.0	99	99	90-110	0	20	

MATRIX SPIKE SAMPLE: 3608843

Parameter	Units	50372467001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.0	100	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

QC Batch: 790521 | Analysis Method: EPA 365.1
QC Batch Method: EPA 365.1 | Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372540001, 50372540002, 50372540003, 50372540004

METHOD BLANK: 3617378 Matrix: Water
Associated Lab Samples: 50372540001, 50372540002, 50372540003, 50372540004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	05/20/24 18:37	

LABORATORY CONTROL SAMPLE: 3617379

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3617380 3617381

Parameter	Units	50372424016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	0.41			1.9	1.9				3		

MATRIX SPIKE SAMPLE: 3617382

Parameter	Units	50372539001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	4.6		6.0			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

QC Batch: 789533 — Analysis Method: SM 5310C
QC Batch Method: SM 5310C — Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372540001, 50372540002, 50372540003, 50372540004

METHOD BLANK: 3612708 Matrix: Water
Associated Lab Samples: 50372540001, 50372540002, 50372540003, 50372540004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	05/13/24 15:22	

LABORATORY CONTROL SAMPLE: 3612709

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.6	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3612710 3612711

Parameter	Units	50372534001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	3.2	10	10	12.6	12.3	93	90	80-120	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3612712 3612713

Parameter	Units	50372541001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.5	10	10	10.6	10.4	91	89	80-120	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

Sample: MW-19A **Lab ID: 50372540001** Collected: 05/08/24 11:45 Received: 05/08/24 17:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.728 ± 0.509 (0.615) C:NA T:85%**	pCi/L	05/29/24 16:09	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.46 ± 0.523 (0.754) C:78% T:82%**	pCi/L	05/28/24 11:36	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.19 ± 1.03 (1.37)**	pCi/L	06/03/24 15:22	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

Sample: MW-19I **Lab ID: 50372540002** Collected: 05/08/24 13:10 Received: 05/08/24 17:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.424 ± 0.572 (0.961) C:NA T:85%**	pCi/L	05/29/24 16:09	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**4.11 ± 1.00 (0.889) C:63% T:88%**	pCi/L	05/28/24 11:36	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**4.53 ± 1.57 (1.85)**	pCi/L	06/03/24 15:22	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

Sample: MW-19B **Lab ID: 50372540003** Collected: 05/08/24 14:10 Received: 05/08/24 17:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0621 ± 0.283 (0.457) C:NA T:89%**	pCi/L	05/29/24 16:09	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.00793 ± 0.355 (0.824) C:79% T:85%**	pCi/L	05/28/24 15:23	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.0700 ± 0.638 (1.28)**	pCi/L	06/03/24 15:22	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

Sample: AP-9A **Lab ID: 50372540004** Collected: 05/08/24 09:05 Received: 05/08/24 17:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.247 ± 0.485 (1.08) C:NA T:91%**	pCi/L	05/30/24 13:12	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.02 ± 0.428 (0.681) C:85% T:90%**	pCi/L	05/28/24 15:21	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.02 ± 0.913 (1.76)**	pCi/L	06/03/24 15:28	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

QC Batch: 668077
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372540001, 50372540002, 50372540003

METHOD BLANK: 3252946
Matrix: Water
Associated Lab Samples: 50372540001, 50372540002, 50372540003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.394 ± 0.333 (0.669) C:83% T:87%	pCi/L	05/28/24 11:36	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

QC Batch: 668080
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372540004

METHOD BLANK: 3252952 Matrix: Water
Associated Lab Samples: 50372540004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.517 ± 0.312 (0.556) C:85% T:92%	pCi/L	05/28/24 15:21	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

QC Batch: 668076
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372540001, 50372540002, 50372540003

METHOD BLANK: 3252945 Matrix: Water
Associated Lab Samples: 50372540001, 50372540002, 50372540003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0443 ± 0.202 (0.477) C:NA T:92%	pCi/L	05/29/24 15:56	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

QC Batch: 668078
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372540004

METHOD BLANK: 3252951 Matrix: Water
Associated Lab Samples: 50372540004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.179 (0.290) C:NA T:92%	pCi/L	05/30/24 13:12	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

CH	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50372540001	**MW-19A**	EPA 9056	789056		
50372540002	**MW-19I**	EPA 9056	789056		
50372540003	**MW-19B**	EPA 9056	789056		
50372540004	**AP-9A**	EPA 9056	789056		
50372540001	**MW-19A**	EPA 3010	789101	EPA 6010	789740
50372540002	**MW-19I**	EPA 3010	789101	EPA 6010	789740
50372540003	**MW-19B**	EPA 3010	789101	EPA 6010	789740
50372540004	**AP-9A**	EPA 3010	789101	EPA 6010	789740
50372540001	**MW-19A**	EPA 3010	789952	EPA 6010	790303
50372540002	**MW-19I**	EPA 3010	789952	EPA 6010	790303
50372540003	**MW-19B**	EPA 3010	789952	EPA 6010	790303
50372540004	**AP-9A**	EPA 3010	789952	EPA 6010	790303
50372540001	**MW-19A**	EPA 200.2	789337	EPA 6020	789474
50372540002	**MW-19I**	EPA 200.2	789337	EPA 6020	789474
50372540003	**MW-19B**	EPA 200.2	789337	EPA 6020	789474
50372540004	**AP-9A**	EPA 200.2	789337	EPA 6020	789474
50372540001	**MW-19A**	EPA 200.2	789338	EPA 6020	789475
50372540002	**MW-19I**	EPA 200.2	789338	EPA 6020	789475
50372540003	**MW-19B**	EPA 200.2	789338	EPA 6020	789475
50372540004	**AP-9A**	EPA 200.2	789338	EPA 6020	789475
50372540001	**MW-19A**	EPA 7470	790072	EPA 7470	790840
50372540002	**MW-19I**	EPA 7470	790072	EPA 7470	790840
50372540003	**MW-19B**	EPA 7470	790072	EPA 7470	790840
50372540004	**AP-9A**	EPA 7470	790072	EPA 7470	790840
50372540001	**MW-19A**	EPA 903.1	668076		
50372540002	**MW-19I**	EPA 903.1	668076		
50372540003	**MW-19B**	EPA 903.1	668076		
50372540004	**AP-9A**	EPA 903.1	668078		
50372540001	**MW-19A**	EPA 904.0	668077		
50372540002	**MW-19I**	EPA 904.0	668077		
50372540003	**MW-19B**	EPA 904.0	668077		
50372540004	**AP-9A**	EPA 904.0	668080		
50372540001	**MW-19A**	Total Radium Calculation	672817		
50372540002	**MW-19I**	Total Radium Calculation	672817		
50372540003	**MW-19B**	Total Radium Calculation	672817		
50372540004	**AP-9A**	Total Radium Calculation	672820		
50372540001	**MW-19A**	SM 2320B	789095		
50372540002	**MW-19I**	SM 2320B	789095		
50372540003	**MW-19B**	SM 2320B	789095		
50372540004	**AP-9A**	SM 2320B	789095		
50372540001	**MW-19A**	SM 2540C	789175		
50372540002	**MW-19I**	SM 2540C	789175		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372540

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50372540003	**MW-19B**	SM 2540C	789175		
50372540004	**AP-9A**	SM 2540C	789175		
50372540001	**MW-19A**	SM 4500-H+B	789794		
50372540002	**MW-19I**	SM 4500-H+B	789794		
50372540003	**MW-19B**	SM 4500-H+B	789794		
50372540004	**AP-9A**	SM 4500-H+B	789804		
50372540001	**MW-19A**	SM 4500-S2-D	789189		
50372540002	**MW-19I**	SM 4500-S2-D	789191		
50372540003	**MW-19B**	SM 4500-S2-D	789191		
50372540004	**AP-9A**	SM 4500-S2-D	789192		
50372540001	**MW-19A**	EPA 353.2	788852		
50372540002	**MW-19I**	EPA 353.2	788852		
50372540003	**MW-19B**	EPA 353.2	788852		
50372540004	**AP-9A**	EPA 353.2	788852		
50372540001	**MW-19A**	EPA 365.1	790521	EPA 365.1	790972
50372540002	**MW-19I**	EPA 365.1	790521	EPA 365.1	790972
50372540003	**MW-19B**	EPA 365.1	790521	EPA 365.1	790972
50372540004	**AP-9A**	EPA 365.1	790521	EPA 365.1	790972
50372540001	**MW-19A**	SM 5310C	789533		
50372540002	**MW-19I**	SM 5310C	789533		
50372540003	**MW-19B**	SM 5310C	789533		
50372540004	**AP-9A**	SM 5310C	789533		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO#:50372540

50372540

Pace Analytical
WWW.PACELABS.COM

st Document

ds must be completed accurately.

Page : Of

Section A — **Required Client Information:**

Company: Atlas Indianapolis
Address: 7988 Centerpoint Drive Suite 100, Indianapolis, IN 46256
Email: mark.breting@oneatlas.com
Phone: (317)579-4082 Fax:
Requested Due Date:

Section B — **Required Project Information:**

Report To: Mark Breting
Copy To:
Purchase Order #:
Project Name: Petersburg P4 May 2024
Project #: P4R3

Invoice Information:

Attention: Accounts Payable - Paula Sedam
Company Name: Atlas Indianapolis
Address:
Pace Quote:
Pace Project Manager: Will Statz
Pace Profile #: 10498/60

Regulatory Agency

State / Location: IN

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO3 Wet	(Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity,pH	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum	Residual Chlorine (Y/N)	
	Requested Analysis Filtered (Y/N)																					Y			Y				
1	MW-19A	WT	G	5/8/24	11:45				10	3	2	4		1															001
2	MW-19I				1:10																								002
3	MW-19B				2:10		~~2:10~~																						003
4	AP-9A				9:05																								004
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
* Metals: 6010 (B, Cd, Cr, Fe, Pb, Mo, Ca, Mg, Na, K, Li) (11)	Mohammed Bazbauit	5/8/24	1500		5-8-24	17:20	0.5	Y	N	Y
3020 (Be, Mn, Co, As, Se, Sb, Ba, Tl) (8), 7470 (Hg)							0.7			
** Dissolved FF 6010 (B, Mo, Mg, K, Li) (5) FF 6020 (Al) (1)										
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	Jacob Rager		
SIGNATURE of SAMPLER:		DATE Signed:	5-8-24

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: RC 5-8-24 17:29

1. Courier: ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. Custody Seal on Cooler/Box Present: ☐ Yes ☑ No
(If yes)Seals Intact: ☐ Yes ☐ No (leave blank if no seals were present)
3. Thermometer: 1 2 3 4 5 6 7 8 A (B) C D E F G H
4. Cooler Temperature(s): 0.5/0.5 | 0.7/0.7 | | |
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____
6. Ice Type: ☑ Wet ☐ Blue ☐ None
7. Was the PM notified of out of temp cooler?: ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C
8. EZ Bottle Order? ☐ Yes ☑ No
If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl. Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis: NO3	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 18:35		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A ✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID		✓	Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS: Most of MW-19A samples rcvd with only ID present, no date / time recorded RC 5-8-24

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red	Sulfuric Yellow	Sodium Hydroxide Green	Sodium Hydroxide/ ZnAc Black
																HNO3 <2													H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
1													1			2	1	2	1	1	1		1					WT	✓	✓		✓
2													1			1	1	1	1	1	1		1					1	1	1		1
3													1			1	1	1	1	1	1		1					1	1	1		1
4													1			2	1	1	1	1	1		1					1	1	1		1
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

July 24, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 09, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50372593001	**AP-4B**	Water	05/08/24 10:45	05/09/24 09:50
50372593002	**AP-5**	Water	05/08/24 11:40	05/09/24 09:50
50372593003	**AP-5 MS**	Water	05/08/24 11:40	05/09/24 09:50
50372593004	**AP-5 MSD**	Water	05/08/24 11:40	05/09/24 09:50
50372593005	**AP-5A**	Water	05/08/24 14:50	05/09/24 09:50
50372593006	**AP-6A**	Water	05/08/24 16:30	05/09/24 09:50

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50372593001	**AP-4B**	EPA 9056	KBB	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	ABH	3	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	1	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50372593002	**AP-5**	EPA 9056	KBB	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	ABH	3	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	1	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50372593003	**AP-5 MS**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
50372593004	**AP-5 MSD**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
50372593005	**AP-5A**	EPA 9056	KBB	3	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6010	JPK	11	PASI-I
		EPA 6010	ABH	3	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	1	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50372593006	**AP-6A**	EPA 9056	KBB	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	ABH	3	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	1	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372593001	**AP-4B**					
EPA 9056	Chloride	12.9	mg/L	0.25	05/15/24 21:31	
EPA 9056	Sulfate	92.6	mg/L	2.5	05/15/24 21:49	
EPA 6010	Boron	425	ug/L	100	05/16/24 01:31	
EPA 6010	Calcium	162000	ug/L	1000	05/16/24 01:31	
EPA 6010	Magnesium	33700	ug/L	1000	05/16/24 01:31	
EPA 6010	Sodium	8190	ug/L	1000	05/16/24 01:31	
EPA 6010	Boron, Dissolved	425	ug/L	100	05/15/24 19:28	
EPA 6020	Barium	99.2	ug/L	1.0	05/11/24 12:23	
EPA 6020	Selenium	17.2	ug/L	1.0	05/11/24 12:23	
EPA 903.1	Radium-226	0.0624 ± 0.406 (0.818) C:NA T:84%	pCi/L		05/29/24 16:09	
EPA 904.0	Radium-228	0.289 ± 0.424 (0.914) C:73% T:83%	pCi/L		05/28/24 15:23	
Total Radium Calculation	Total Radium	0.351 ± 0.830 (1.73)	pCi/L		06/03/24 15:22	
SM 2320B	Alkalinity, Total as CaCO3	358	mg/L	10.0	05/09/24 20:34	
SM 2540C	Total Dissolved Solids	627	mg/L	10.0	05/13/24 12:33	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	05/16/24 11:51	H3
EPA 353.2	Nitrogen, Nitrate	20.0	mg/L	2.5	05/10/24 01:10	
SM 5310C	Dissolved Organic Carbon	3.9	mg/L	1.0	05/14/24 02:16	
50372593002	**AP-5**					
EPA 9056	Chloride	5.8	mg/L	0.25	05/15/24 22:06	
EPA 9056	Fluoride	0.14	mg/L	0.10	05/15/24 22:06	
EPA 9056	Sulfate	125	mg/L	2.5	05/15/24 22:24	
EPA 6010	Boron	960	ug/L	100	05/16/24 01:32	
EPA 6010	Calcium	138000	ug/L	1000	05/16/24 01:32	
EPA 6010	Magnesium	27400	ug/L	1000	05/16/24 01:32	
EPA 6010	Molybdenum	39.0	ug/L	10.0	05/16/24 01:32	
EPA 6010	Potassium	3760	ug/L	1000	05/16/24 01:32	
EPA 6010	Sodium	7870	ug/L	1000	05/16/24 01:32	
EPA 6010	Boron, Dissolved	1020	ug/L	100	05/15/24 19:29	
EPA 6010	Molybdenum, Dissolved	37.9	ug/L	10.0	05/15/24 19:29	
EPA 6020	Barium	20.7	ug/L	1.0	05/11/24 13:03	
EPA 6020	Manganese	168	ug/L	2.0	05/15/24 04:15	
EPA 6020	Selenium	2.4	ug/L	1.0	05/11/24 13:03	
EPA 903.1	Radium-226	0.0957 ± 0.460 (0.868) C:NA T:90%	pCi/L		05/29/24 16:09	
EPA 904.0	Radium-228	0.275 ± 0.357 (0.760) C:83% T:91%	pCi/L		05/28/24 15:23	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372593002	**AP-5**					
Total Radium Calculation	Total Radium	0.371 ± 0.817 (1.63) C:NA T:84%	pCi/L		06/03/24 15:22	
SM 2320B	Alkalinity, Total as CaCO3	307	mg/L	10.0	05/09/24 20:34	
SM 2540C	Total Dissolved Solids	554	mg/L	10.0	05/13/24 12:33	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	05/16/24 11:52	H3
EPA 353.2	Nitrogen, Nitrate	5.9	mg/L	0.50	05/10/24 01:14	
SM 5310C	Dissolved Organic Carbon	2.7	mg/L	1.0	05/21/24 11:43	
50372593003	**AP-5 MS**					
EPA 903.1	Radium-226	102.26 %REC ± NA (NA) C:NA T:NA	pCi/L		05/29/24 16:09	
EPA 904.0	Radium-228	73.54 %REC ± NA (NA) C:NA T:NA	pCi/L		05/28/24 15:23	
50372593004	**AP-5 MSD**					
EPA 903.1	Radium-226	115.91 %REC 12.51RPD ± NA (NA) C:NA T:NA	pCi/L		05/29/24 16:09	
EPA 904.0	Radium-228	73.13 %REC 0.56RPD ± NA (NA) C:NA T:NA	pCi/L		05/28/24 15:23	
50372593005	**AP-5A**					
EPA 9056	Chloride	56.7	mg/L	2.5	05/15/24 23:16	
EPA 9056	Sulfate	1680	mg/L	25.0	05/15/24 23:33	
EPA 6010	Boron	10200	ug/L	100	05/16/24 01:44	
EPA 6010	Calcium	641000	ug/L	5000	05/16/24 01:57	
EPA 6010	Iron	11400	ug/L	100	05/16/24 01:44	
EPA 6010	Magnesium	49700	ug/L	1000	05/16/24 01:44	
EPA 6010	Molybdenum	455	ug/L	10.0	05/16/24 01:44	
EPA 6010	Potassium	4290	ug/L	1000	05/16/24 01:44	
EPA 6010	Sodium	61100	ug/L	1000	05/16/24 01:44	
EPA 6010	Boron, Dissolved	10100	ug/L	100	05/15/24 20:57	
EPA 6010	Molybdenum, Dissolved	453	ug/L	10.0	05/15/24 20:57	
EPA 6020	Barium	23.8	ug/L	1.0	05/11/24 13:35	
EPA 6020	Manganese	2150	ug/L	20.0	05/11/24 13:31	
EPA 903.1	Radium-226	1.12 ± 0.609 (0.667) C:NA T:84%	pCi/L		05/29/24 16:09	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372593005	**AP-5A**					
EPA 904.0	Radium-228	0.361 ± 0.386 (0.806) C:79% T:89%	pCi/L		05/28/24 15:23	
Total Radium Calculation	Total Radium	1.48 ± 0.995 (1.47)	pCi/L		06/03/24 15:22	
SM 2320B	Alkalinity, Total as CaCO3	98.2	mg/L	10.0	05/09/24 20:34	
SM 2540C	Total Dissolved Solids	2770	mg/L	40.0	05/13/24 12:34	
SM 4500-H+B	pH at 25 Degrees C	6.8	Std. Units	0.10	05/16/24 11:54	H3
EPA 365.1	Phosphate as P04	0.32	mg/L	0.15	05/23/24 12:48	
SM 5310C	Dissolved Organic Carbon	4.6	mg/L	1.0	05/21/24 12:16	
50372593006	**AP-6A**					
EPA 9056	Chloride	20.7	mg/L	0.25	05/16/24 02:10	
EPA 9056	Sulfate	605	mg/L	25.0	05/16/24 02:45	
EPA 6010	Boron	2540	ug/L	100	05/16/24 01:46	
EPA 6010	Calcium	301000	ug/L	2000	05/16/24 02:02	
EPA 6010	Iron	10300	ug/L	100	05/16/24 01:46	
EPA 6010	Magnesium	76500	ug/L	1000	05/16/24 01:46	
EPA 6010	Potassium	2160	ug/L	1000	05/16/24 01:46	
EPA 6010	Sodium	17000	ug/L	1000	05/16/24 01:46	
EPA 6010	Boron, Dissolved	2530	ug/L	100	05/15/24 20:59	
EPA 6020	Barium	21.6	ug/L	1.0	05/11/24 13:42	
EPA 6020	Manganese	964	ug/L	10.0	05/11/24 13:38	
EPA 903.1	Radium-226	0.577 ± 0.491 (0.690) C:NA T:82%	pCi/L		05/29/24 16:21	
EPA 904.0	Radium-228	0.460 ± 0.367 (0.730) C:82% T:89%	pCi/L		05/28/24 15:23	
Total Radium Calculation	Total Radium	1.04 ± 0.858 (1.42)	pCi/L		06/03/24 15:22	
SM 2320B	Alkalinity, Total as CaCO3	362	mg/L	10.0	05/09/24 20:34	
SM 2540C	Total Dissolved Solids	1260	mg/L	20.0	05/13/24 15:32	
SM 4500-H+B	pH at 25 Degrees C	6.9	Std. Units	0.10	05/16/24 11:56	H3
EPA 365.1	Phosphate as P04	0.38	mg/L	0.15	05/23/24 12:49	
SM 5310C	Dissolved Organic Carbon	6.2	mg/L	1.0	05/21/24 12:27	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

Sample: AP-4B **Lab ID: 50372593001** Collected: 05/08/24 10:45 Received: 05/09/24 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**12.9**	mg/L	0.25	0.067	1		05/15/24 21:31	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/15/24 21:31	16984-48-8	
Sulfate	**92.6**	mg/L	2.5	1.9	10		05/15/24 21:49	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**425**	ug/L	100	6.2	1	05/14/24 15:59	05/16/24 01:31	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/14/24 15:59	05/16/24 01:31	7440-43-9	
Calcium	**162000**	ug/L	1000	67.7	1	05/14/24 15:59	05/16/24 01:31	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/14/24 15:59	05/16/24 01:31	7440-47-3	
Iron	ND	ug/L	100	30.0	1	05/14/24 15:59	05/16/24 01:31	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/14/24 15:59	05/16/24 01:31	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/14/24 15:59	05/16/24 01:31	7439-93-2	
Magnesium	**33700**	ug/L	1000	33.6	1	05/14/24 15:59	05/16/24 01:31	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	05/14/24 15:59	05/16/24 01:31	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	05/14/24 15:59	05/16/24 01:31	7440-09-7	
Sodium	**8190**	ug/L	1000	54.8	1	05/14/24 15:59	05/16/24 01:31	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**425**	ug/L	100	11.4	1	05/15/24 08:32	05/15/24 19:28	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	05/15/24 08:32	05/15/24 19:28	7439-93-2	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	05/15/24 08:32	05/15/24 19:28	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	05/10/24 15:02	05/11/24 12:23	7440-36-0	
Arsenic	ND	ug/L	1.0	0.10	1	05/10/24 15:02	05/11/24 12:23	7440-38-2	
Barium	**99.2**	ug/L	1.0	0.062	1	05/10/24 15:02	05/11/24 12:23	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	05/10/24 15:02	05/11/24 12:23	7440-41-7	
Cobalt	ND	ug/L	1.0	0.060	1	05/10/24 15:02	05/11/24 12:23	7440-48-4	
Manganese	ND	ug/L	1.0	0.15	1	05/10/24 15:02	05/11/24 12:23	7439-96-5	
Selenium	**17.2**	ug/L	1.0	0.36	1	05/10/24 15:02	05/11/24 12:23	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	05/10/24 15:02	05/11/24 12:23	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/13/24 17:19	05/15/24 11:49	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/20/24 09:36	05/20/24 18:37	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

Sample: AP-4B **Lab ID: 50372593001** Collected: 05/08/24 10:45 Received: 05/09/24 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**358**	mg/L	10.0	10.0	1		05/09/24 20:34		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**627**	mg/L	10.0	10.0	1		05/13/24 12:33		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		05/16/24 11:51		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/10/24 12:56	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**20.0**	mg/L	2.5	0.32	25		05/10/24 01:10	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	05/17/24 12:15	05/23/24 12:47		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.9**	mg/L	1.0	0.25	1		05/14/24 02:16		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

Sample: AP-5 **Lab ID: 50372593002** Collected: 05/08/24 11:40 Received: 05/09/24 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**5.8**	mg/L	0.25	0.067	1		05/15/24 22:06	16887-00-6	
Fluoride	**0.14**	mg/L	0.10	0.017	1		05/15/24 22:06	16984-48-8	
Sulfate	**125**	mg/L	2.5	1.9	10		05/15/24 22:24	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**960**	ug/L	100	6.2	1	05/14/24 15:59	05/16/24 01:32	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/14/24 15:59	05/16/24 01:32	7440-43-9	
Calcium	**138000**	ug/L	1000	67.7	1	05/14/24 15:59	05/16/24 01:32	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/14/24 15:59	05/16/24 01:32	7440-47-3	
Iron	ND	ug/L	100	30.0	1	05/14/24 15:59	05/16/24 01:32	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/14/24 15:59	05/16/24 01:32	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/14/24 15:59	05/16/24 01:32	7439-93-2	
Magnesium	**27400**	ug/L	1000	33.6	1	05/14/24 15:59	05/16/24 01:32	7439-95-4	
Molybdenum	**39.0**	ug/L	10.0	0.78	1	05/14/24 15:59	05/16/24 01:32	7439-98-7	
Potassium	**3760**	ug/L	1000	97.8	1	05/14/24 15:59	05/16/24 01:32	7440-09-7	
Sodium	**7870**	ug/L	1000	54.8	1	05/14/24 15:59	05/16/24 01:32	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1020**	ug/L	100	11.4	1	05/15/24 08:32	05/15/24 19:29	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	05/15/24 08:32	05/15/24 19:29	7439-93-2	
Molybdenum, Dissolved	**37.9**	ug/L	10.0	1.1	1	05/15/24 08:32	05/15/24 19:29	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	05/10/24 15:02	05/11/24 13:03	7440-36-0	
Arsenic	ND	ug/L	1.0	0.10	1	05/10/24 15:02	05/11/24 13:03	7440-38-2	
Barium	**20.7**	ug/L	1.0	0.062	1	05/10/24 15:02	05/11/24 13:03	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	05/10/24 15:02	05/11/24 13:03	7440-41-7	
Cobalt	ND	ug/L	1.0	0.060	1	05/10/24 15:02	05/11/24 13:03	7440-48-4	
Manganese	**168**	ug/L	2.0	0.30	2	05/10/24 15:02	05/15/24 04:15	7439-96-5	
Selenium	**2.4**	ug/L	1.0	0.36	1	05/10/24 15:02	05/11/24 13:03	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	05/10/24 15:02	05/11/24 13:03	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/13/24 17:19	05/15/24 11:23	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/20/24 09:36	05/20/24 18:47	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

Sample: AP-5 **Lab ID: 50372593002** Collected: 05/08/24 11:40 Received: 05/09/24 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**307**	mg/L	10.0	10.0	1		05/09/24 20:34		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**554**	mg/L	10.0	10.0	1		05/13/24 12:33		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		05/16/24 11:52		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/10/24 12:56	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**5.9**	mg/L	0.50	0.065	5		05/10/24 01:14	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	05/21/24 12:30	05/23/24 13:08		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.7**	mg/L	1.0	0.25	1		05/21/24 11:43		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

Sample: AP-5A **Lab ID: 50372593005** Collected: 05/08/24 14:50 Received: 05/09/24 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**56.7**	mg/L	2.5	0.67	10		05/15/24 23:16	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/15/24 22:59	16984-48-8	
Sulfate	**1680**	mg/L	25.0	19.0	100		05/15/24 23:33	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**10200**	ug/L	100	6.2	1	05/14/24 15:59	05/16/24 01:44	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/14/24 15:59	05/16/24 01:44	7440-43-9	
Calcium	**641000**	ug/L	5000	338	5	05/14/24 15:59	05/16/24 01:57	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/14/24 15:59	05/16/24 01:44	7440-47-3	
Iron	**11400**	ug/L	100	30.0	1	05/14/24 15:59	05/16/24 01:44	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/14/24 15:59	05/16/24 01:44	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/14/24 15:59	05/16/24 01:44	7439-93-2	
Magnesium	**49700**	ug/L	1000	33.6	1	05/14/24 15:59	05/16/24 01:44	7439-95-4	
Molybdenum	**455**	ug/L	10.0	0.78	1	05/14/24 15:59	05/16/24 01:44	7439-98-7	
Potassium	**4290**	ug/L	1000	97.8	1	05/14/24 15:59	05/16/24 01:44	7440-09-7	
Sodium	**61100**	ug/L	1000	54.8	1	05/14/24 15:59	05/16/24 01:44	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**10100**	ug/L	100	11.4	1	05/15/24 08:32	05/15/24 20:57	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	05/15/24 08:32	05/15/24 20:57	7439-93-2	
Molybdenum, Dissolved	**453**	ug/L	10.0	1.1	1	05/15/24 08:32	05/15/24 20:57	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	05/10/24 15:02	05/11/24 13:35	7440-36-0	
Arsenic	ND	ug/L	1.0	0.10	1	05/10/24 15:02	05/11/24 13:35	7440-38-2	
Barium	**23.8**	ug/L	1.0	0.062	1	05/10/24 15:02	05/11/24 13:35	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	05/10/24 15:02	05/11/24 13:35	7440-41-7	
Cobalt	ND	ug/L	1.0	0.060	1	05/10/24 15:02	05/11/24 13:35	7440-48-4	
Manganese	**2150**	ug/L	20.0	3.0	20	05/10/24 15:02	05/11/24 13:31	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	05/10/24 15:02	05/11/24 13:35	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	05/10/24 15:02	05/11/24 13:35	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/13/24 17:19	05/15/24 11:52	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/20/24 09:36	05/20/24 18:55	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

Sample: AP-5A **Lab ID: 50372593005** Collected: 05/08/24 14:50 Received: 05/09/24 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**98.2**	mg/L	10.0	10.0	1		05/09/24 20:34		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2770**	mg/L	40.0	40.0	1		05/13/24 12:34		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.8**	Std. Units	0.10	0.10	1		05/16/24 11:54		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/10/24 12:56	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/10/24 00:26	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.32**	mg/L	0.15	0.13	1	05/17/24 12:15	05/23/24 12:48		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**4.6**	mg/L	1.0	0.25	1		05/21/24 12:16		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

Sample: AP-6A **Lab ID: 50372593006** Collected: 05/08/24 16:30 Received: 05/09/24 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**20.7**	mg/L	0.25	0.067	1		05/16/24 02:10	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/16/24 02:10	16984-48-8	
Sulfate	**605**	mg/L	25.0	19.0	100		05/16/24 02:45	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**2540**	ug/L	100	6.2	1	05/14/24 15:59	05/16/24 01:46	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/14/24 15:59	05/16/24 01:46	7440-43-9	
Calcium	**301000**	ug/L	2000	135	2	05/14/24 15:59	05/16/24 02:02	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/14/24 15:59	05/16/24 01:46	7440-47-3	
Iron	**10300**	ug/L	100	30.0	1	05/14/24 15:59	05/16/24 01:46	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/14/24 15:59	05/16/24 01:46	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/14/24 15:59	05/16/24 01:46	7439-93-2	
Magnesium	**76500**	ug/L	1000	33.6	1	05/14/24 15:59	05/16/24 01:46	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	05/14/24 15:59	05/16/24 01:46	7439-98-7	
Potassium	**2160**	ug/L	1000	97.8	1	05/14/24 15:59	05/16/24 01:46	7440-09-7	
Sodium	**17000**	ug/L	1000	54.8	1	05/14/24 15:59	05/16/24 01:46	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**2530**	ug/L	100	11.4	1	05/15/24 08:32	05/15/24 20:59	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	05/15/24 08:32	05/15/24 20:59	7439-93-2	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	05/15/24 08:32	05/15/24 20:59	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	05/10/24 15:02	05/11/24 13:42	7440-36-0	
Arsenic	ND	ug/L	1.0	0.10	1	05/10/24 15:02	05/11/24 13:42	7440-38-2	
Barium	**21.6**	ug/L	1.0	0.062	1	05/10/24 15:02	05/11/24 13:42	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	05/10/24 15:02	05/11/24 13:42	7440-41-7	
Cobalt	ND	ug/L	1.0	0.060	1	05/10/24 15:02	05/11/24 13:42	7440-48-4	
Manganese	**964**	ug/L	10.0	1.5	10	05/10/24 15:02	05/11/24 13:38	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	05/10/24 15:02	05/11/24 13:42	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	05/10/24 15:02	05/11/24 13:42	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/13/24 17:19	05/15/24 11:56	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/20/24 09:36	05/20/24 18:57	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

Sample: AP-6A **Lab ID: 50372593006** Collected: 05/08/24 16:30 Received: 05/09/24 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**362**	mg/L	10.0	10.0	1		05/09/24 20:34		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1260**	mg/L	20.0	20.0	1		05/13/24 15:32		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.9**	Std. Units	0.10	0.10	1		05/16/24 11:56		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/10/24 12:56	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/10/24 00:37	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.38**	mg/L	0.15	0.13	1	05/17/24 12:15	05/23/24 12:49		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**6.2**	mg/L	1.0	0.25	1		05/21/24 12:27		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

QC Batch: 789058
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372593001, 50372593002, 50372593005, 50372593006

METHOD BLANK: 3609837 Matrix: Water
Associated Lab Samples: 50372593001, 50372593002, 50372593005, 50372593006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/15/24 10:48	
Fluoride	mg/L	ND	0.10	0.017	05/15/24 10:48	
Sulfate	mg/L	ND	0.25	0.19	05/15/24 10:48	

LABORATORY CONTROL SAMPLE: 3609838

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	96	80-120	
Fluoride	mg/L	1	1.0	102	80-120	
Sulfate	mg/L	5	4.8	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3609839 3609840

Parameter	Units	50372593002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	5.8	2.5	2.5	8.5	8.3	111	100	80-120	3	15	
Fluoride	mg/L	0.14	1	1	1.2	1.1	103	99	80-120	4	15	
Sulfate	mg/L	125	50	50	205	176	159	101	80-120	15	15	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

QC Batch: 790388
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372593001, 50372593002, 50372593005, 50372593006

METHOD BLANK: 3616458 Matrix: Water
Associated Lab Samples: 50372593001, 50372593002, 50372593005, 50372593006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	05/20/24 17:58	

LABORATORY CONTROL SAMPLE: 3616459

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.1	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3616460 3616461

Parameter	Units	50372593002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.1	4.9	101	98	75-125	4	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

QC Batch: 789104
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372593001, 50372593002, 50372593005, 50372593006

METHOD BLANK: 3610094 Matrix: Water
Associated Lab Samples: 50372593001, 50372593002, 50372593005, 50372593006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	05/16/24 00:56	
Cadmium	ug/L	ND	2.0	0.60	05/16/24 00:56	
Calcium	ug/L	ND	1000	67.7	05/16/24 00:56	
Chromium	ug/L	ND	10.0	0.42	05/16/24 00:56	
Iron	ug/L	ND	100	30.0	05/16/24 00:56	
Lead	ug/L	ND	10.0	2.5	05/16/24 00:56	
Lithium	ug/L	ND	20.0	6.8	05/16/24 00:56	
Magnesium	ug/L	ND	1000	33.6	05/16/24 00:56	
Molybdenum	ug/L	ND	10.0	0.78	05/16/24 00:56	
Potassium	ug/L	ND	1000	97.8	05/16/24 00:56	
Sodium	ug/L	ND	1000	54.8	05/16/24 00:56	

LABORATORY CONTROL SAMPLE: 3610095

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	966	97	80-120	
Cadmium	ug/L	1000	957	96	80-120	
Calcium	ug/L	10000	10400	104	80-120	
Chromium	ug/L	1000	1000	100	80-120	
Iron	ug/L	10000	9870	99	80-120	
Lead	ug/L	1000	948	95	80-120	
Lithium	ug/L	1000	1020	102	80-120	
Magnesium	ug/L	10000	9960	100	80-120	
Molybdenum	ug/L	1000	1010	101	80-120	
Potassium	ug/L	10000	10100	101	80-120	
Sodium	ug/L	10000	10100	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3610096 3610097

Parameter	Units	50372593002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	960	1000	1000	1920	2030	96	107	75-125	6	20	
Cadmium	ug/L	ND	1000	1000	951	980	95	98	75-125	3	20	
Calcium	ug/L	138000	10000	10000	142000	154000	38	160	75-125	8	20	P6
Chromium	ug/L	ND	1000	1000	978	1010	98	101	75-125	3	20	
Iron	ug/L	ND	10000	10000	9680	9920	96	99	75-125	2	20	
Lead	ug/L	ND	1000	1000	916	937	91	94	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3610096 3610097

Parameter	Units	50372593002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	ND	1000	1000	1010	1050	100	104	75-125	4	20	
Magnesium	ug/L	27400	10000	10000	35800	38400	85	110	75-125	7	20	
Molybdenum	ug/L	39.0	1000	1000	1040	1080	100	104	75-125	3	20	
Potassium	ug/L	3760	10000	10000	13400	14300	96	106	75-125	7	20	
Sodium	ug/L	7870	10000	10000	17200	18300	93	105	75-125	6	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

QC Batch: 789959
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372593001, 50372593002, 50372593005, 50372593006

METHOD BLANK: 3614493 Matrix: Water
Associated Lab Samples: 50372593001, 50372593002, 50372593005, 50372593006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	11.4	05/15/24 18:50	
Lithium, Dissolved	ug/L	ND	20.0	5.1	05/15/24 18:50	
Molybdenum, Dissolved	ug/L	ND	10.0	1.1	05/15/24 18:50	

LABORATORY CONTROL SAMPLE: 3614494

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	968	97	80-120	
Lithium, Dissolved	ug/L	1000	986	99	80-120	F5
Molybdenum, Dissolved	ug/L	1000	1000	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614495 3614496

Parameter	Units	50372593002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	1020	1000	1000	2040	2050	102	102	75-125	0	20	
Lithium, Dissolved	ug/L	ND	1000	1000	997	1010	99	101	75-125	2	20	F5
Molybdenum, Dissolved	ug/L	37.9	1000	1000	1050	1060	101	103	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

QC Batch: 789097
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372593001, 50372593002, 50372593005, 50372593006

METHOD BLANK: 3610042 Matrix: Water
Associated Lab Samples: 50372593001, 50372593002, 50372593005, 50372593006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.26	05/11/24 10:15	
Arsenic	ug/L	ND	1.0	0.10	05/11/24 10:15	
Barium	ug/L	ND	1.0	0.062	05/11/24 10:15	
Beryllium	ug/L	ND	0.20	0.020	05/11/24 10:15	
Cobalt	ug/L	ND	1.0	0.060	05/11/24 10:15	
Manganese	ug/L	ND	1.0	0.15	05/11/24 10:15	
Selenium	ug/L	ND	1.0	0.36	05/11/24 10:15	
Thallium	ug/L	ND	1.0	0.079	05/11/24 10:15	

LABORATORY CONTROL SAMPLE: 3610043

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	43.3	108	80-120	
Arsenic	ug/L	40	41.0	103	80-120	
Barium	ug/L	40	40.0	100	80-120	
Beryllium	ug/L	40	39.8	100	80-120	
Cobalt	ug/L	40	40.9	102	80-120	
Manganese	ug/L	40	41.7	104	80-120	
Selenium	ug/L	40	41.0	103	80-120	
Thallium	ug/L	40	39.6	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3610044 3610045

Parameter	Units	50372593002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	44.5	44.7	111	111	75-125	0	20	
Arsenic	ug/L	ND	40	40	41.7	42.2	104	105	75-125	1	20	
Barium	ug/L	20.7	40	40	60.0	60.1	98	98	75-125	0	20	
Beryllium	ug/L	ND	40	40	39.9	40.2	100	100	75-125	1	20	
Cobalt	ug/L	ND	40	40	38.4	38.7	95	96	75-125	1	20	
Manganese	ug/L	168	40	40	204	206	88	93	75-125	1	20	
Selenium	ug/L	2.4	40	40	44.3	45.7	105	108	75-125	3	20	
Thallium	ug/L	ND	40	40	39.5	39.8	99	99	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

QC Batch: 789622
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372593001, 50372593002, 50372593005, 50372593006

METHOD BLANK: 3613040 Matrix: Water
Associated Lab Samples: 50372593001, 50372593002, 50372593005, 50372593006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.3	05/15/24 09:00	

LABORATORY CONTROL SAMPLE: 3613041

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	408	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3613042 3613043

Parameter	Units	50372593002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	401	400	100	100	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

QC Batch: 789098 | Analysis Method: SM 2320B
QC Batch Method: SM 2320B | Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372593001, 50372593002, 50372593005, 50372593006

METHOD BLANK: 3610046 Matrix: Water
Associated Lab Samples: 50372593001, 50372593002, 50372593005, 50372593006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/09/24 20:34	

LABORATORY CONTROL SAMPLE: 3610047

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	45.9	92	90-110	

SAMPLE DUPLICATE: 3610048

Parameter	Units	50372541002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	391	399	2	20	

SAMPLE DUPLICATE: 3610049

Parameter	Units	50372593002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	307	311	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

QC Batch: 789494
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372593001, 50372593002, 50372593005

METHOD BLANK: 3612535 Matrix: Water
Associated Lab Samples: 50372593001, 50372593002, 50372593005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/13/24 12:27	

LABORATORY CONTROL SAMPLE: 3612536

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	288	96	80-120	

SAMPLE DUPLICATE: 3612537

Parameter	Units	50372571004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1770	1830	3	10	

SAMPLE DUPLICATE: 3612538

Parameter	Units	50372593002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	554	547	1	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

QC Batch: 789495
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372593006

METHOD BLANK: 3612539 Matrix: Water
Associated Lab Samples: 50372593006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/13/24 15:32	

LABORATORY CONTROL SAMPLE: 3612540

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	282	94	80-120	

SAMPLE DUPLICATE: 3612541

Parameter	Units	50372593006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1260	1270	1	10	

SAMPLE DUPLICATE: 3612542

Parameter	Units	50372629007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	591	572	3	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

QC Batch: 789811
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372593001, 50372593002, 50372593005, 50372593006

SAMPLE DUPLICATE: 3613687

Parameter	Units	50372593002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.2	7.2	0	2	H3

SAMPLE DUPLICATE: 3613688

Parameter	Units	50372732002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.7	8.6	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

QC Batch: 789192
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372593001, 50372593002, 50372593005, 50372593006

METHOD BLANK: 3610651 Matrix: Water
Associated Lab Samples: 50372593001, 50372593002, 50372593005, 50372593006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/10/24 12:56	

LABORATORY CONTROL SAMPLE: 3610652

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.49	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3610653 3610654

Parameter	Units	50372541002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.51	0.51	102	102	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3610655 3610656

Parameter	Units	50372593002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.47	0.47	93	94	90-110	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

QC Batch: 789112
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372593001

METHOD BLANK: 3610178 Matrix: Water
Associated Lab Samples: 50372593001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/09/24 22:31	

LABORATORY CONTROL SAMPLE: 3610179

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	102	90-110	

MATRIX SPIKE SAMPLE: 3610180

Parameter	Units	50372570006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	0.12	1	1.1	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3610181 3610182

Parameter	Units	50372571004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.1	1.1	105	105	90-110	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

QC Batch: 789113
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372593002

METHOD BLANK: 3610186 Matrix: Water
Associated Lab Samples: 50372593002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/09/24 23:25	

LABORATORY CONTROL SAMPLE: 3610187

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3610188 3610189

Parameter	Units	50372593002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	5.9	5	5	11.1	11.1	103	104	90-110	0	20	

MATRIX SPIKE SAMPLE: 3610190

Parameter	Units	50372570002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.0	99	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

QC Batch: 789114
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372593005, 50372593006

METHOD BLANK: 3610192 Matrix: Water
Associated Lab Samples: 50372593005, 50372593006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/10/24 00:22	

LABORATORY CONTROL SAMPLE: 3610193

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3610194 3610195

Parameter	Units	50372695006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.1	1.0	104	103	90-110	1	20	

MATRIX SPIKE SAMPLE: 3610196

Parameter	Units	50372695003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.0	103	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

QC Batch: 790524 | Analysis Method: EPA 365.1
QC Batch Method: EPA 365.1 | Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372593001, 50372593005, 50372593006

METHOD BLANK: 3617391 Matrix: Water
Associated Lab Samples: 50372593001, 50372593005, 50372593006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	05/23/24 12:29	

LABORATORY CONTROL SAMPLE: 3617392

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3617393 3617394

Parameter	Units	50372541001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.4	1.5				2		

MATRIX SPIKE SAMPLE: 3617395

Parameter	Units	50372593001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	ND		1.4			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

QC Batch: 791056
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372593002

METHOD BLANK: 3619760 Matrix: Water
Associated Lab Samples: 50372593002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	05/23/24 13:04	

LABORATORY CONTROL SAMPLE: 3619761

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3619762 3619763

Parameter	Units	50372568004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	<0.15			1.6	1.6				2		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3619764 3619765

Parameter	Units	50372593002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.5	1.4				7		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

QC Batch: 789533
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372593001

METHOD BLANK: 3612708 Matrix: Water
Associated Lab Samples: 50372593001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	05/13/24 15:22	

LABORATORY CONTROL SAMPLE: 3612709

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.6	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3612710 3612711

Parameter	Units	50372534001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	3.2	10	10	12.6	12.3	93	90	80-120	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3612712 3612713

Parameter	Units	50372541001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.5	10	10	10.6	10.4	91	89	80-120	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

QC Batch: 791070
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372593002, 50372593005, 50372593006

METHOD BLANK: 3619824 Matrix: Water
Associated Lab Samples: 50372593002, 50372593005, 50372593006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	05/21/24 10:49	

LABORATORY CONTROL SAMPLE: 3619825

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3619826 3619827

Parameter	Units	50372541002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	3.9	10	10	14.2	13.7	103	98	80-120	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3619828 3619829

Parameter	Units	50372593002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.7	10	10	11.3	11.2	86	85	80-120	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

Sample: AP-4B **Lab ID: 50372593001** Collected: 05/08/24 10:45 Received: 05/09/24 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0624 ± 0.406 (0.818) C:NA T:84%**	pCi/L	05/29/24 16:09	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.289 ± 0.424 (0.914) C:73% T:83%**	pCi/L	05/28/24 15:23	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.351 ± 0.830 (1.73)**	pCi/L	06/03/24 15:22	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

Sample: AP-5 **Lab ID: 50372593002** Collected: 05/08/24 11:40 Received: 05/09/24 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0957 ± 0.460 (0.868) C:NA T:90%**	pCi/L	05/29/24 16:09	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.275 ± 0.357 (0.760) C:83% T:91%**	pCi/L	05/28/24 15:23	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.371 ± 0.817 (1.63)**	pCi/L	06/03/24 15:22	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

Sample: AP-5 MS **Lab ID: 50372593003** Collected: 05/08/24 11:40 Received: 05/09/24 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**102.26 %REC ± NA (NA) C:NA T:NA**	pCi/L	05/29/24 16:09	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**73.54 %REC ± NA (NA) C:NA T:NA**	pCi/L	05/28/24 15:23	15262-20-1	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

Sample: AP-5 MSD **Lab ID: 50372593004** Collected: 05/08/24 11:40 Received: 05/09/24 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**115.91 %REC 12.51RPD ± NA (NA) C:NA T:NA**	pCi/L	05/29/24 16:09	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**73.13 %REC 0.56RPD ± NA (NA) C:NA T:NA**	pCi/L	05/28/24 15:23	15262-20-1	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

Sample: AP-5A **Lab ID: 50372593005** Collected: 05/08/24 14:50 Received: 05/09/24 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.12 ± 0.609 (0.667) C:NA T:84%**	pCi/L	05/29/24 16:09	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.361 ± 0.386 (0.806) C:79% T:89%**	pCi/L	05/28/24 15:23	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.48 ± 0.995 (1.47)**	pCi/L	06/03/24 15:22	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

Sample: AP-6A **Lab ID: 50372593006** Collected: 05/08/24 16:30 Received: 05/09/24 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.577 ± 0.491 (0.690) C:NA T:82%**	pCi/L	05/29/24 16:21	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.460 ± 0.367 (0.730) C:82% T:89%**	pCi/L	05/28/24 15:23	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.04 ± 0.858 (1.42)**	pCi/L	06/03/24 15:22	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

QC Batch: 668077
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372593001, 50372593002, 50372593003, 50372593004, 50372593005, 50372593006

METHOD BLANK: 3252946 Matrix: Water
Associated Lab Samples: 50372593001, 50372593002, 50372593003, 50372593004, 50372593005, 50372593006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.394 ± 0.333 (0.669) C:83% T:87%	pCi/L	05/28/24 11:36	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

QC Batch: 668076
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372593001, 50372593002, 50372593003, 50372593004, 50372593005, 50372593006

METHOD BLANK: 3252945 Matrix: Water
Associated Lab Samples: 50372593001, 50372593002, 50372593003, 50372593004, 50372593005, 50372593006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0443 ± 0.202 (0.477) C:NA T:92%	pCi/L	05/29/24 15:56	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

F5	The recovery of the analyte in the CRDL standard (also known as the reporting limit verification) did not meet the acceptance criteria.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50372593001	**AP-4B**	EPA 9056	789058		
50372593002	**AP-5**	EPA 9056	789058		
50372593005	**AP-5A**	EPA 9056	789058		
50372593006	**AP-6A**	EPA 9056	789058		
50372593001	**AP-4B**	EPA 3010	789104	EPA 6010	790250
50372593002	**AP-5**	EPA 3010	789104	EPA 6010	790250
50372593005	**AP-5A**	EPA 3010	789104	EPA 6010	790250
50372593006	**AP-6A**	EPA 3010	789104	EPA 6010	790250
50372593001	**AP-4B**	EPA 3010	789959	EPA 6010	790210
50372593002	**AP-5**	EPA 3010	789959	EPA 6010	790210
50372593005	**AP-5A**	EPA 3010	789959	EPA 6010	790210
50372593006	**AP-6A**	EPA 3010	789959	EPA 6010	790210
50372593001	**AP-4B**	EPA 200.2	789097	EPA 6020	789382
50372593002	**AP-5**	EPA 200.2	789097	EPA 6020	789382
50372593005	**AP-5A**	EPA 200.2	789097	EPA 6020	789382
50372593006	**AP-6A**	EPA 200.2	789097	EPA 6020	789382
50372593001	**AP-4B**	EPA 200.2	789622	EPA 6020	789712
50372593002	**AP-5**	EPA 200.2	789622	EPA 6020	789712
50372593005	**AP-5A**	EPA 200.2	789622	EPA 6020	789712
50372593006	**AP-6A**	EPA 200.2	789622	EPA 6020	789712
50372593001	**AP-4B**	EPA 7470	790388	EPA 7470	790952
50372593002	**AP-5**	EPA 7470	790388	EPA 7470	790952
50372593005	**AP-5A**	EPA 7470	790388	EPA 7470	790952
50372593006	**AP-6A**	EPA 7470	790388	EPA 7470	790952
50372593001	**AP-4B**	EPA 903.1	668076		
50372593002	**AP-5**	EPA 903.1	668076		
50372593003	**AP-5 MS**	EPA 903.1	668076		
50372593004	**AP-5 MSD**	EPA 903.1	668076		
50372593005	**AP-5A**	EPA 903.1	668076		
50372593006	**AP-6A**	EPA 903.1	668076		
50372593001	**AP-4B**	EPA 904.0	668077		
50372593002	**AP-5**	EPA 904.0	668077		
50372593003	**AP-5 MS**	EPA 904.0	668077		
50372593004	**AP-5 MSD**	EPA 904.0	668077		
50372593005	**AP-5A**	EPA 904.0	668077		
50372593006	**AP-6A**	EPA 904.0	668077		
50372593001	**AP-4B**	Total Radium Calculation	672817		
50372593002	**AP-5**	Total Radium Calculation	672817		
50372593005	**AP-5A**	Total Radium Calculation	672817		
50372593006	**AP-6A**	Total Radium Calculation	672817		
50372593001	**AP-4B**	SM 2320B	789098		
50372593002	**AP-5**	SM 2320B	789098		
50372593005	**AP-5A**	SM 2320B	789098		
50372593006	**AP-6A**	SM 2320B	789098		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372593

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50372593001	**AP-4B**	SM 2540C	789494		
50372593002	**AP-5**	SM 2540C	789494		
50372593005	**AP-5A**	SM 2540C	789494		
50372593006	**AP-6A**	SM 2540C	789495		
50372593001	**AP-4B**	SM 4500-H+B	789811		
50372593002	**AP-5**	SM 4500-H+B	789811		
50372593005	**AP-5A**	SM 4500-H+B	789811		
50372593006	**AP-6A**	SM 4500-H+B	789811		
50372593001	**AP-4B**	SM 4500-S2-D	789192		
50372593002	**AP-5**	SM 4500-S2-D	789192		
50372593005	**AP-5A**	SM 4500-S2-D	789192		
50372593006	**AP-6A**	SM 4500-S2-D	789192		
50372593001	**AP-4B**	EPA 353.2	789112		
50372593002	**AP-5**	EPA 353.2	789113		
50372593005	**AP-5A**	EPA 353.2	789114		
50372593006	**AP-6A**	EPA 353.2	789114		
50372593001	**AP-4B**	EPA 365.1	790524	EPA 365.1	791685
50372593002	**AP-5**	EPA 365.1	791056	EPA 365.1	791687
50372593005	**AP-5A**	EPA 365.1	790524	EPA 365.1	791685
50372593006	**AP-6A**	EPA 365.1	790524	EPA 365.1	791685
50372593001	**AP-4B**	SM 5310C	789533		
50372593002	**AP-5**	SM 5310C	791070		
50372593005	**AP-5A**	SM 5310C	791070		
50372593006	**AP-6A**	SM 5310C	791070		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO# : 50372593

50372593

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Requ

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fi

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg May 2024 P2R4	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:		Pace Profile #:	10498/59

Regulatory Agency
State / Location
IN

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test (Y/N)	Total Metals 6010/6020/7470	Diss. Metals 6010/6020	DOC by 5310	Alkalinity/pH	Cl, F, SO4 by 9056	TDS by 2540C	Nitrate by 353.2	Phosphate by 365.1	Sulfide by 4500	Rad 226/228 + Sum to PA			Residual Chlorine (Y/N)	
1	AP-4B	WT	G			5/8/24	1045		10	X	X	X		X					X	X	X	X	X	X	X	X	X	X				
2	AP-5	WT	G			5/8/24	1140		10	X	X	X		X					X	X	X	X	X	X	X	X	X	X				
3	MS-3	WT	G			5/8/24			10	X	X	X		X					X	X	X	X	X	X	X	X	X	X				
4	MSD-3	WT	G			5/8/24			10	X	X	X		X					X	X	X	X	X	X	X	X	X	X				
5	AP-5A	WT	G			5/8/24	1450		10	X	X	X		X					X	X	X	X	X	X	X	X	X	X				
6	AP-6A	WT	G			5/8/24	1630		10	X	X	X		X					X	X	X	X	X	X	X	X	X	X				
7																																
8																																
9																																
10																																
11																																
12																																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
Metals* 6010: B, Cd, Cr, Fe, Pb, Mo, Ca, Mg, Na, K, Li (11)	[signature]	5-9-24	7.15	Joy Williams	5/9/21	7.15				
6020: Be, Mn, Co, As, Se, Sb, Ba, Tl (8). 7470: Hg (1)	Joy Williams	5-9-24	9.50	Matt	5/9/24	950	1.6	Y	N	Y
Diss 6010: B, Mo, Li (3). Diss 6020: Al, Mn (2)										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Josh O'Brian

SIGNATURE of SAMPLER: [signature] DATE Signed: 5-8-24

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 5/9/24 1031 mw

1. Courier: ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. Custody Seal on Cooler/Box Present: ☐ Yes ☑ No

(If yes)Seals Intact: ☐ Yes ☐ No (leave blank if no seals were present)

3. Thermometer: 1 2 3 4 5 6 7 8 A B C D E F (G) H

4. Cooler Temperature(s): (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

1.8/1.6	2.0/1.8	3.1/2.9	

5. Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. Ice Type: ☑ Wet ☐ Blue ☐ None

7. Was the PM notified of out of temp cooler?: ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

8. EZ Bottle Order? ☐ Yes ☑ No

If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** Circle: ~~HNO3 (<2)~~ ~~H2SO4 (<2)~~ NaOH (>10) ~~NaOH/ZnAc (>9)~~ Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis: Nitrate	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 1210		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A ✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/ZnAc >9
1												1				2	1	2	1	1	1		1					✓	✓		✓
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

July 24, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 09, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis
7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50372699001	**AP-10A**	Water	05/09/24 09:50	05/09/24 17:30
50372699002	**AP-10A MS**	Water	05/09/24 09:50	05/09/24 17:30
50372699003	**AP-10A MSD**	Water	05/09/24 09:50	05/09/24 17:30
50372699004	**AP-10I**	Water	05/09/24 12:23	05/09/24 17:30
50372699005	**MW-21A**	Water	05/09/24 14:25	05/09/24 17:30
50372699006	**MW-21I**	Water	05/09/24 12:00	05/09/24 17:30
50372699007	**MW-21B**	Water	05/09/24 09:50	05/09/24 17:30
50372699008	**DUP-5**	Water	05/09/24 08:00	05/09/24 17:30

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50372699001	**AP-10A**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6020	CAW	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50372699002	**AP-10A MS**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
50372699003	**AP-10A MSD**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
50372699004	**AP-10I**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6020	CAW	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50372699005	**MW-21A**	EPA 9056	ADM	3	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6010	ELK	11	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6020	CAW	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50372699006	**MW-21I**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6020	CAW	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50372699007	**MW-21B**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6020	CAW	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50372699008	**DUP-5**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6020	CAW	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372699001	**AP-10A**					
EPA 9056	Chloride	170	mg/L	2.5	05/21/24 19:26	
EPA 9056	Sulfate	1780	mg/L	25.0	05/21/24 19:43	
EPA 6010	Boron	28700	ug/L	100	05/21/24 11:42	
EPA 6010	Calcium	729000	ug/L	5000	05/21/24 17:07	
EPA 6010	Iron	7550	ug/L	100	05/21/24 11:42	
EPA 6010	Magnesium	11300	ug/L	1000	05/21/24 11:42	
EPA 6010	Molybdenum	504	ug/L	10.0	05/21/24 11:42	
EPA 6010	Potassium	15500	ug/L	1000	05/21/24 11:42	
EPA 6010	Sodium	49200	ug/L	1000	05/21/24 11:42	
EPA 6010	Boron, Dissolved	28900	ug/L	100	05/18/24 02:49	
EPA 6010	Magnesium, Dissolved	11700	ug/L	1000	05/18/24 02:49	
EPA 6010	Molybdenum, Dissolved	513	ug/L	10.0	05/18/24 02:49	
EPA 6010	Potassium, Dissolved	15800	ug/L	1000	05/18/24 02:49	
EPA 6020	Arsenic	1.2	ug/L	1.0	05/16/24 23:33	
EPA 6020	Barium	31.0	ug/L	1.0	05/16/24 23:33	
EPA 6020	Manganese	2590	ug/L	20.0	05/17/24 15:15	
EPA 903.1	Radium-226	0.359 ± 0.505 (0.855) C:NA T:86%	pCi/L		06/04/24 14:34	
EPA 904.0	Radium-228	0.814 ± 0.437 (0.759) C:71% T:81%	pCi/L		05/30/24 14:36	
Total Radium Calculation	Total Radium	1.17 ± 0.942 (1.61)	pCi/L		06/05/24 15:27	
SM 2320B	Alkalinity, Total as CaCO3	53.4	mg/L	10.0	05/14/24 20:54	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	53.4	mg/L	10.0	05/14/24 20:54	
SM 2540C	Total Dissolved Solids	2980	mg/L	40.0	05/14/24 10:05	
SM 4500-H+B	pH at 25 Degrees C	6.8	Std. Units	0.10	05/21/24 11:38	H3
EPA 365.1	Phosphate as P04	0.16	mg/L	0.15	05/23/24 15:31	
SM 5310C	Dissolved Organic Carbon	2.4	mg/L	1.0	05/21/24 15:20	
50372699002	**AP-10A MS**					
EPA 903.1	Radium-226	90.81 %REC ± NA (NA) C:NA T:NA	pCi/L		06/04/24 14:34	
EPA 904.0	Radium-228	79.85 %REC ± NA (NA) C:NA T:NA	pCi/L		05/30/24 14:37	
50372699003	**AP-10A MSD**					
EPA 903.1	Radium-226	101.42 %REC 11.05RPD ± NA (NA) C:NA T:NA	pCi/L		06/04/24 14:34	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372699003	**AP-10A MSD**					
EPA 904.0	Radium-228	85.88 %REC 7.28RPD ± NA (NA) C:NA T:NA	pCi/L		05/30/24 14:37	
50372699004	**AP-10I**					
EPA 9056	Chloride	164	mg/L	2.5	05/21/24 20:17	
EPA 9056	Fluoride	0.12	mg/L	0.10	05/21/24 20:00	
EPA 9056	Sulfate	998	mg/L	25.0	05/21/24 20:34	
EPA 6010	Boron	14400	ug/L	100	05/21/24 11:51	
EPA 6010	Calcium	428000	ug/L	5000	05/21/24 18:15	
EPA 6010	Iron	5950	ug/L	100	05/21/24 11:51	
EPA 6010	Lithium	22.5	ug/L	20.0	05/21/24 11:51	
EPA 6010	Magnesium	49600	ug/L	1000	05/21/24 11:51	
EPA 6010	Molybdenum	140	ug/L	10.0	05/21/24 11:51	
EPA 6010	Potassium	12300	ug/L	1000	05/21/24 11:51	
EPA 6010	Sodium	83700	ug/L	1000	05/21/24 11:51	
EPA 6010	Boron, Dissolved	15400	ug/L	100	05/18/24 02:58	
EPA 6010	Lithium, Dissolved	25.5	ug/L	20.0	05/18/24 02:58	
EPA 6010	Magnesium, Dissolved	54700	ug/L	1000	05/18/24 02:58	
EPA 6010	Molybdenum, Dissolved	145	ug/L	10.0	05/18/24 02:58	
EPA 6010	Potassium, Dissolved	12100	ug/L	1000	05/18/24 02:58	
EPA 6020	Barium	76.6	ug/L	1.0	05/16/24 23:59	
EPA 6020	Manganese	3140	ug/L	20.0	05/17/24 15:33	
EPA 903.1	Radium-226	0.364 ± 0.715 (1.27) C:NA T:88%	pCi/L		06/04/24 14:34	
EPA 904.0	Radium-228	0.744 ± 0.495 (0.961) C:78% T:84%	pCi/L		05/30/24 14:37	
Total Radium Calculation	Total Radium	1.11 ± 1.21 (2.23)	pCi/L		06/05/24 15:27	
SM 2320B	Alkalinity, Total as CaCO3	225	mg/L	10.0	05/14/24 20:54	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	225	mg/L	10.0	05/14/24 20:54	
SM 2540C	Total Dissolved Solids	1980	mg/L	20.0	05/14/24 10:05	
SM 4500-H+B	pH at 25 Degrees C	6.9	Std. Units	0.10	05/21/24 11:39	H3
EPA 365.1	Phosphate as P04	0.34	mg/L	0.15	05/23/24 15:33	
SM 5310C	Dissolved Organic Carbon	3.5	mg/L	1.0	05/21/24 17:12	
50372699005	**MW-21A**					
EPA 9056	Chloride	91.6	mg/L	2.5	05/21/24 23:23	
EPA 9056	Fluoride	0.19	mg/L	0.10	05/21/24 23:06	
EPA 9056	Sulfate	1390	mg/L	25.0	05/21/24 23:39	
EPA 6010	Boron	11500	ug/L	100	05/21/24 11:53	
EPA 6010	Calcium	522000	ug/L	5000	05/21/24 17:18	
EPA 6010	Iron	6280	ug/L	100	05/21/24 11:53	
EPA 6010	Lithium	72.7	ug/L	20.0	05/21/24 11:53	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372699005	**MW-21A**					
EPA 6010	Magnesium	38400	ug/L	1000	05/21/24 11:53	
EPA 6010	Molybdenum	177	ug/L	10.0	05/21/24 11:53	
EPA 6010	Potassium	18400	ug/L	1000	05/21/24 11:53	
EPA 6010	Sodium	59700	ug/L	1000	05/21/24 11:53	
EPA 6010	Boron, Dissolved	12300	ug/L	100	05/18/24 02:59	
EPA 6010	Lithium, Dissolved	76.7	ug/L	20.0	05/18/24 02:59	
EPA 6010	Magnesium, Dissolved	42600	ug/L	1000	05/18/24 02:59	
EPA 6010	Molybdenum, Dissolved	187	ug/L	10.0	05/18/24 02:59	
EPA 6010	Potassium, Dissolved	18900	ug/L	1000	05/18/24 02:59	
EPA 6020	Arsenic	2.0	ug/L	1.0	05/17/24 00:03	
EPA 6020	Barium	30.5	ug/L	1.0	05/17/24 00:03	
EPA 6020	Manganese	857	ug/L	10.0	05/17/24 15:37	
EPA 903.1	Radium-226	0.445 ± 0.673 (1.15) C:NA T:86%	pCi/L		06/04/24 14:34	
EPA 904.0	Radium-228	0.412 ± 0.414 (0.854) C:79% T:81%	pCi/L		05/30/24 14:37	
Total Radium Calculation	Total Radium	0.857 ± 1.09 (2.00)	pCi/L		06/05/24 15:27	
SM 2320B	Alkalinity, Total as CaCO3	111	mg/L	10.0	05/14/24 20:54	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	111	mg/L	10.0	05/14/24 20:54	
SM 2540C	Total Dissolved Solids	2250	mg/L	20.0	05/14/24 10:05	
SM 4500-H+B	pH at 25 Degrees C	6.8	Std. Units	0.10	05/21/24 11:41	H3
EPA 365.1	Phosphate as P04	0.99	mg/L	0.15	05/23/24 15:34	
SM 5310C	Dissolved Organic Carbon	2.8	mg/L	1.0	05/21/24 17:32	
50372699006	**MW-21I**					
EPA 9056	Chloride	74.3	mg/L	2.5	05/22/24 00:47	
EPA 9056	Fluoride	0.23	mg/L	0.10	05/22/24 00:30	
EPA 9056	Sulfate	457	mg/L	25.0	05/22/24 01:04	
EPA 6010	Boron	2330	ug/L	100	05/21/24 11:55	
EPA 6010	Calcium	262000	ug/L	2000	05/21/24 17:20	
EPA 6010	Iron	5660	ug/L	100	05/21/24 11:55	
EPA 6010	Magnesium	38200	ug/L	1000	05/21/24 11:55	
EPA 6010	Molybdenum	109	ug/L	10.0	05/21/24 11:55	
EPA 6010	Potassium	9120	ug/L	1000	05/21/24 11:55	
EPA 6010	Sodium	41500	ug/L	1000	05/21/24 11:55	
EPA 6010	Boron, Dissolved	2390	ug/L	100	05/18/24 03:01	
EPA 6010	Magnesium, Dissolved	39200	ug/L	1000	05/18/24 03:01	
EPA 6010	Molybdenum, Dissolved	113	ug/L	10.0	05/18/24 03:01	
EPA 6010	Potassium, Dissolved	9120	ug/L	1000	05/18/24 03:01	
EPA 6020	Barium	46.1	ug/L	1.0	05/17/24 00:06	
EPA 6020	Manganese	1300	ug/L	10.0	05/17/24 15:40	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372699006	**MW-21I**					
EPA 903.1	Radium-226	0.591 ± 0.696 (1.14) C:NA T:91%	pCi/L		06/04/24 14:34	
EPA 904.0	Radium-228	0.852 ± 0.525 (1.01) C:77% T:84%	pCi/L		05/30/24 14:37	
Total Radium Calculation	Total Radium	1.44 ± 1.22 (2.15)	pCi/L		06/05/24 15:27	
SM 2320B	Alkalinity, Total as CaCO3	349	mg/L	10.0	05/14/24 20:54	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	349	mg/L	10.0	05/14/24 20:54	
SM 2540C	Total Dissolved Solids	1140	mg/L	20.0	05/14/24 10:06	
SM 4500-H+B	pH at 25 Degrees C	6.9	Std. Units	0.10	05/21/24 11:42	H3
EPA 365.1	Phosphate as P04	1.0	mg/L	0.15	05/23/24 15:36	
SM 5310C	Dissolved Organic Carbon	2.8	mg/L	1.0	05/21/24 17:52	
50372699007	**MW-21B**					
EPA 9056	Chloride	58.7	mg/L	2.5	05/22/24 01:37	
EPA 9056	Sulfate	479	mg/L	25.0	05/22/24 01:54	
EPA 6010	Boron	769	ug/L	100	05/21/24 12:00	
EPA 6010	Calcium	274000	ug/L	2000	05/21/24 17:21	
EPA 6010	Iron	352	ug/L	100	05/21/24 12:00	
EPA 6010	Magnesium	61800	ug/L	1000	05/21/24 12:00	
EPA 6010	Potassium	1990	ug/L	1000	05/21/24 12:00	
EPA 6010	Sodium	34000	ug/L	1000	05/21/24 12:00	
EPA 6010	Boron, Dissolved	814	ug/L	100	05/18/24 03:03	
EPA 6010	Magnesium, Dissolved	64400	ug/L	1000	05/18/24 03:03	
EPA 6010	Potassium, Dissolved	1940	ug/L	1000	05/18/24 03:03	
EPA 6020	Barium	55.3	ug/L	1.0	05/17/24 00:10	
EPA 6020	Cobalt	2.7	ug/L	1.0	05/17/24 00:10	
EPA 6020	Manganese	4000	ug/L	40.0	05/17/24 15:49	
EPA 903.1	Radium-226	0.546 ± 0.658 (1.08) C:NA T:85%	pCi/L		06/04/24 14:34	
EPA 904.0	Radium-228	0.287 ± 0.388 (0.830) C:78% T:84%	pCi/L		05/30/24 14:37	
Total Radium Calculation	Total Radium	0.833 ± 1.05 (1.91)	pCi/L		06/05/24 15:27	
SM 2320B	Alkalinity, Total as CaCO3	451	mg/L	10.0	05/14/24 20:54	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	451	mg/L	10.0	05/14/24 20:54	
SM 2540C	Total Dissolved Solids	1240	mg/L	20.0	05/14/24 10:06	
SM 4500-H+B	pH at 25 Degrees C	6.9	Std. Units	0.10	05/21/24 11:42	H3
EPA 353.2	Nitrogen, Nitrate	0.20	mg/L	0.10	05/10/24 02:07	
SM 5310C	Dissolved Organic Carbon	3.0	mg/L	1.0	05/21/24 18:18	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372699008	**DUP-5**					
EPA 9056	Chloride	88.8	mg/L	2.5	05/22/24 02:28	
EPA 9056	Fluoride	0.19	mg/L	0.10	05/22/24 02:11	
EPA 9056	Sulfate	1380	mg/L	25.0	05/22/24 02:45	
EPA 6010	Boron	11600	ug/L	100	05/21/24 12:02	
EPA 6010	Calcium	529000	ug/L	5000	05/21/24 17:23	
EPA 6010	Iron	6390	ug/L	100	05/21/24 12:02	
EPA 6010	Lithium	69.7	ug/L	20.0	05/21/24 12:02	
EPA 6010	Magnesium	39200	ug/L	1000	05/21/24 12:02	
EPA 6010	Molybdenum	179	ug/L	10.0	05/21/24 12:02	
EPA 6010	Potassium	18500	ug/L	1000	05/21/24 12:02	
EPA 6010	Sodium	60000	ug/L	1000	05/21/24 12:02	
EPA 6010	Boron, Dissolved	11900	ug/L	100	05/18/24 03:10	
EPA 6010	Lithium, Dissolved	77.2	ug/L	20.0	05/18/24 03:10	
EPA 6010	Magnesium, Dissolved	40700	ug/L	1000	05/18/24 03:10	
EPA 6010	Molybdenum, Dissolved	183	ug/L	10.0	05/18/24 03:10	
EPA 6010	Potassium, Dissolved	19000	ug/L	1000	05/18/24 03:10	
EPA 6020	Arsenic	2.0	ug/L	1.0	05/17/24 00:21	
EPA 6020	Barium	30.7	ug/L	1.0	05/17/24 00:21	
EPA 6020	Manganese	855	ug/L	10.0	05/17/24 16:12	
EPA 903.1	Radium-226	-0.0618 ± 0.606 (1.20) C:NA T:87%	pCi/L		06/04/24 14:46	
EPA 904.0	Radium-228	0.126 ± 0.359 (0.807) C:74% T:80%	pCi/L		05/30/24 14:37	
Total Radium Calculation	Total Radium	0.126 ± 0.965 (2.01)	pCi/L		06/05/24 15:27	
SM 2320B	Alkalinity, Total as CaCO3	111	mg/L	10.0	05/14/24 20:54	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	111	mg/L	10.0	05/14/24 20:54	
SM 2540C	Total Dissolved Solids	2180	mg/L	20.0	05/14/24 10:06	
SM 4500-H+B	pH at 25 Degrees C	6.8	Std. Units	0.10	05/21/24 11:43	H3
EPA 365.1	Phosphate as P04	0.91	mg/L	0.15	05/23/24 15:37	
SM 5310C	Dissolved Organic Carbon	2.5	mg/L	1.0	05/21/24 18:38	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Sample: AP-10A **Lab ID: 50372699001** Collected: 05/09/24 09:50 Received: 05/09/24 17:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**170**	mg/L	2.5	0.67	10		05/21/24 19:26	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/21/24 19:10	16984-48-8	
Sulfate	**1780**	mg/L	25.0	19.0	100		05/21/24 19:43	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**28700**	ug/L	100	6.2	1	05/20/24 16:10	05/21/24 11:42	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/20/24 16:10	05/21/24 11:42	7440-43-9	
Calcium	**729000**	ug/L	5000	338	5	05/20/24 16:10	05/21/24 17:07	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/20/24 16:10	05/21/24 11:42	7440-47-3	
Iron	**7550**	ug/L	100	30.0	1	05/20/24 16:10	05/21/24 11:42	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/20/24 16:10	05/21/24 11:42	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/20/24 16:10	05/21/24 11:42	7439-93-2	
Magnesium	**11300**	ug/L	1000	33.6	1	05/20/24 16:10	05/21/24 11:42	7439-95-4	
Molybdenum	**504**	ug/L	10.0	0.78	1	05/20/24 16:10	05/21/24 11:42	7439-98-7	
Potassium	**15500**	ug/L	1000	97.8	1	05/20/24 16:10	05/21/24 11:42	7440-09-7	
Sodium	**49200**	ug/L	1000	54.8	1	05/20/24 16:10	05/21/24 11:42	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**28900**	ug/L	100	6.2	1	05/17/24 07:53	05/18/24 02:49	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	05/17/24 07:53	05/18/24 02:49	7439-93-2	
Magnesium, Dissolved	**11700**	ug/L	1000	33.6	1	05/17/24 07:53	05/18/24 02:49	7439-95-4	
Molybdenum, Dissolved	**513**	ug/L	10.0	0.78	1	05/17/24 07:53	05/18/24 02:49	7439-98-7	
Potassium, Dissolved	**15800**	ug/L	1000	97.8	1	05/17/24 07:53	05/18/24 02:49	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.49	1	05/15/24 07:32	05/16/24 23:33	7440-36-0	
Arsenic	**1.2**	ug/L	1.0	0.075	1	05/15/24 07:32	05/16/24 23:33	7440-38-2	
Barium	**31.0**	ug/L	1.0	0.077	1	05/15/24 07:32	05/16/24 23:33	7440-39-3	
Beryllium	ND	ug/L	0.20	0.035	1	05/15/24 07:32	05/16/24 23:33	7440-41-7	
Cobalt	ND	ug/L	1.0	0.046	1	05/15/24 07:32	05/16/24 23:33	7440-48-4	
Manganese	**2590**	ug/L	20.0	3.4	20	05/15/24 07:32	05/17/24 15:15	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	05/15/24 07:32	05/16/24 23:33	7782-49-2	
Thallium	ND	ug/L	1.0	0.040	1	05/15/24 07:32	05/16/24 23:33	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/15/24 07:32	05/16/24 20:19	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/23/24 09:48	05/23/24 16:37	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Sample: AP-10A **Lab ID: 50372699001** Collected: 05/09/24 09:50 Received: 05/09/24 17:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**53.4**	mg/L	10.0	10.0	1		05/14/24 20:54		
Alkalinity,Bicarbonate (CaCO3)	**53.4**	mg/L	10.0	10.0	1		05/14/24 20:54		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/14/24 20:54		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2980**	mg/L	40.0	40.0	1		05/14/24 10:05		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.8**	Std. Units	0.10	0.10	1		05/21/24 11:38		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/10/24 13:43	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/10/24 02:01	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.16**	mg/L	0.15	0.13	1	05/22/24 11:30	05/23/24 15:31		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.4**	mg/L	1.0	0.25	1		05/21/24 15:20		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Sample: AP-10I **Lab ID: 50372699004** Collected: 05/09/24 12:23 Received: 05/09/24 17:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**164**	mg/L	2.5	0.67	10		05/21/24 20:17	16887-00-6	
Fluoride	**0.12**	mg/L	0.10	0.017	1		05/21/24 20:00	16984-48-8	
Sulfate	**998**	mg/L	25.0	19.0	100		05/21/24 20:34	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**14400**	ug/L	100	6.2	1	05/20/24 16:10	05/21/24 11:51	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/20/24 16:10	05/21/24 11:51	7440-43-9	
Calcium	**428000**	ug/L	5000	338	5	05/20/24 16:10	05/21/24 18:15	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/20/24 16:10	05/21/24 11:51	7440-47-3	
Iron	**5950**	ug/L	100	30.0	1	05/20/24 16:10	05/21/24 11:51	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/20/24 16:10	05/21/24 11:51	7439-92-1	
Lithium	**22.5**	ug/L	20.0	6.8	1	05/20/24 16:10	05/21/24 11:51	7439-93-2	
Magnesium	**49600**	ug/L	1000	33.6	1	05/20/24 16:10	05/21/24 11:51	7439-95-4	
Molybdenum	**140**	ug/L	10.0	0.78	1	05/20/24 16:10	05/21/24 11:51	7439-98-7	
Potassium	**12300**	ug/L	1000	97.8	1	05/20/24 16:10	05/21/24 11:51	7440-09-7	
Sodium	**83700**	ug/L	1000	54.8	1	05/20/24 16:10	05/21/24 11:51	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**15400**	ug/L	100	6.2	1	05/17/24 07:53	05/18/24 02:58	7440-42-8	
Lithium, Dissolved	**25.5**	ug/L	20.0	6.8	1	05/17/24 07:53	05/18/24 02:58	7439-93-2	
Magnesium, Dissolved	**54700**	ug/L	1000	33.6	1	05/17/24 07:53	05/18/24 02:58	7439-95-4	
Molybdenum, Dissolved	**145**	ug/L	10.0	0.78	1	05/17/24 07:53	05/18/24 02:58	7439-98-7	
Potassium, Dissolved	**12100**	ug/L	1000	97.8	1	05/17/24 07:53	05/18/24 02:58	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.49	1	05/15/24 07:32	05/16/24 23:59	7440-36-0	
Arsenic	ND	ug/L	1.0	0.075	1	05/15/24 07:32	05/16/24 23:59	7440-38-2	
Barium	**76.6**	ug/L	1.0	0.077	1	05/15/24 07:32	05/16/24 23:59	7440-39-3	
Beryllium	ND	ug/L	0.20	0.035	1	05/15/24 07:32	05/16/24 23:59	7440-41-7	
Cobalt	ND	ug/L	1.0	0.046	1	05/15/24 07:32	05/16/24 23:59	7440-48-4	
Manganese	**3140**	ug/L	20.0	3.4	20	05/15/24 07:32	05/17/24 15:33	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	05/15/24 07:32	05/16/24 23:59	7782-49-2	
Thallium	ND	ug/L	1.0	0.040	1	05/15/24 07:32	05/16/24 23:59	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/15/24 07:32	05/17/24 20:03	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/23/24 09:48	05/23/24 16:45	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Sample: AP-10I **Lab ID: 50372699004** Collected: 05/09/24 12:23 Received: 05/09/24 17:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**225**	mg/L	10.0	10.0	1		05/14/24 20:54		
Alkalinity,Bicarbonate (CaCO3)	**225**	mg/L	10.0	10.0	1		05/14/24 20:54		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/14/24 20:54		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1980**	mg/L	20.0	20.0	1		05/14/24 10:05		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.9**	Std. Units	0.10	0.10	1		05/21/24 11:39		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/10/24 12:56	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/10/24 02:34	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.34**	mg/L	0.15	0.13	1	05/22/24 11:30	05/23/24 15:33		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.5**	mg/L	1.0	0.25	1		05/21/24 17:12		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Sample: MW-21A **Lab ID: 50372699005** Collected: 05/09/24 14:25 Received: 05/09/24 17:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**91.6**	mg/L	2.5	0.67	10		05/21/24 23:23	16887-00-6	
Fluoride	**0.19**	mg/L	0.10	0.017	1		05/21/24 23:06	16984-48-8	
Sulfate	**1390**	mg/L	25.0	19.0	100		05/21/24 23:39	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**11500**	ug/L	100	6.2	1	05/20/24 16:10	05/21/24 11:53	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/20/24 16:10	05/21/24 11:53	7440-43-9	
Calcium	**522000**	ug/L	5000	338	5	05/20/24 16:10	05/21/24 17:18	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/20/24 16:10	05/21/24 11:53	7440-47-3	
Iron	**6280**	ug/L	100	30.0	1	05/20/24 16:10	05/21/24 11:53	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/20/24 16:10	05/21/24 11:53	7439-92-1	
Lithium	**72.7**	ug/L	20.0	6.8	1	05/20/24 16:10	05/21/24 11:53	7439-93-2	
Magnesium	**38400**	ug/L	1000	33.6	1	05/20/24 16:10	05/21/24 11:53	7439-95-4	
Molybdenum	**177**	ug/L	10.0	0.78	1	05/20/24 16:10	05/21/24 11:53	7439-98-7	
Potassium	**18400**	ug/L	1000	97.8	1	05/20/24 16:10	05/21/24 11:53	7440-09-7	
Sodium	**59700**	ug/L	1000	54.8	1	05/20/24 16:10	05/21/24 11:53	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**12300**	ug/L	100	6.2	1	05/17/24 07:53	05/18/24 02:59	7440-42-8	
Lithium, Dissolved	**76.7**	ug/L	20.0	6.8	1	05/17/24 07:53	05/18/24 02:59	7439-93-2	
Magnesium, Dissolved	**42600**	ug/L	1000	33.6	1	05/17/24 07:53	05/18/24 02:59	7439-95-4	
Molybdenum, Dissolved	**187**	ug/L	10.0	0.78	1	05/17/24 07:53	05/18/24 02:59	7439-98-7	
Potassium, Dissolved	**18900**	ug/L	1000	97.8	1	05/17/24 07:53	05/18/24 02:59	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.49	1	05/15/24 07:32	05/17/24 00:03	7440-36-0	
Arsenic	**2.0**	ug/L	1.0	0.075	1	05/15/24 07:32	05/17/24 00:03	7440-38-2	
Barium	**30.5**	ug/L	1.0	0.077	1	05/15/24 07:32	05/17/24 00:03	7440-39-3	
Beryllium	ND	ug/L	0.20	0.035	1	05/15/24 07:32	05/17/24 00:03	7440-41-7	
Cobalt	ND	ug/L	1.0	0.046	1	05/15/24 07:32	05/17/24 00:03	7440-48-4	
Manganese	**857**	ug/L	10.0	1.7	10	05/15/24 07:32	05/17/24 15:37	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	05/15/24 07:32	05/17/24 00:03	7782-49-2	
Thallium	ND	ug/L	1.0	0.040	1	05/15/24 07:32	05/17/24 00:03	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/15/24 07:32	05/17/24 20:06	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/23/24 09:48	05/23/24 16:47	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Sample: MW-21A **Lab ID: 50372699005** Collected: 05/09/24 14:25 Received: 05/09/24 17:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**111**	mg/L	10.0	10.0	1		05/14/24 20:54		
Alkalinity,Bicarbonate (CaCO3)	**111**	mg/L	10.0	10.0	1		05/14/24 20:54		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/14/24 20:54		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2250**	mg/L	20.0	20.0	1		05/14/24 10:05		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.8**	Std. Units	0.10	0.10	1		05/21/24 11:41		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/10/24 12:56	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/10/24 02:53	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.99**	mg/L	0.15	0.13	1	05/22/24 11:30	05/23/24 15:34		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.8**	mg/L	1.0	0.25	1		05/21/24 17:32		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Sample: MW-21I **Lab ID: 50372699006** Collected: 05/09/24 12:00 Received: 05/09/24 17:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**74.3**	mg/L	2.5	0.67	10		05/22/24 00:47	16887-00-6	
Fluoride	**0.23**	mg/L	0.10	0.017	1		05/22/24 00:30	16984-48-8	
Sulfate	**457**	mg/L	25.0	19.0	100		05/22/24 01:04	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**2330**	ug/L	100	6.2	1	05/20/24 16:10	05/21/24 11:55	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/20/24 16:10	05/21/24 11:55	7440-43-9	
Calcium	**262000**	ug/L	2000	135	2	05/20/24 16:10	05/21/24 17:20	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/20/24 16:10	05/21/24 11:55	7440-47-3	
Iron	**5660**	ug/L	100	30.0	1	05/20/24 16:10	05/21/24 11:55	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/20/24 16:10	05/21/24 11:55	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/20/24 16:10	05/21/24 11:55	7439-93-2	
Magnesium	**38200**	ug/L	1000	33.6	1	05/20/24 16:10	05/21/24 11:55	7439-95-4	
Molybdenum	**109**	ug/L	10.0	0.78	1	05/20/24 16:10	05/21/24 11:55	7439-98-7	
Potassium	**9120**	ug/L	1000	97.8	1	05/20/24 16:10	05/21/24 11:55	7440-09-7	
Sodium	**41500**	ug/L	1000	54.8	1	05/20/24 16:10	05/21/24 11:55	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**2390**	ug/L	100	6.2	1	05/17/24 07:53	05/18/24 03:01	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	05/17/24 07:53	05/18/24 03:01	7439-93-2	
Magnesium, Dissolved	**39200**	ug/L	1000	33.6	1	05/17/24 07:53	05/18/24 03:01	7439-95-4	
Molybdenum, Dissolved	**113**	ug/L	10.0	0.78	1	05/17/24 07:53	05/18/24 03:01	7439-98-7	
Potassium, Dissolved	**9120**	ug/L	1000	97.8	1	05/17/24 07:53	05/18/24 03:01	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.49	1	05/15/24 07:32	05/17/24 00:06	7440-36-0	
Arsenic	ND	ug/L	1.0	0.075	1	05/15/24 07:32	05/17/24 00:06	7440-38-2	
Barium	**46.1**	ug/L	1.0	0.077	1	05/15/24 07:32	05/17/24 00:06	7440-39-3	
Beryllium	ND	ug/L	0.20	0.035	1	05/15/24 07:32	05/17/24 00:06	7440-41-7	
Cobalt	ND	ug/L	1.0	0.046	1	05/15/24 07:32	05/17/24 00:06	7440-48-4	
Manganese	**1300**	ug/L	10.0	1.7	10	05/15/24 07:32	05/17/24 15:40	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	05/15/24 07:32	05/17/24 00:06	7782-49-2	
Thallium	ND	ug/L	1.0	0.040	1	05/15/24 07:32	05/17/24 00:06	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/15/24 07:32	05/17/24 20:14	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/23/24 09:48	05/23/24 16:50	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Sample: MW-21I **Lab ID: 50372699006** Collected: 05/09/24 12:00 Received: 05/09/24 17:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**349**	mg/L	10.0	10.0	1		05/14/24 20:54		
Alkalinity,Bicarbonate (CaCO3)	**349**	mg/L	10.0	10.0	1		05/14/24 20:54		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/14/24 20:54		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1140**	mg/L	20.0	20.0	1		05/14/24 10:06		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.9**	Std. Units	0.10	0.10	1		05/21/24 11:42		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/10/24 12:56	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/10/24 02:27	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**1.0**	mg/L	0.15	0.13	1	05/22/24 11:30	05/23/24 15:36		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.8**	mg/L	1.0	0.25	1		05/21/24 17:52		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Sample: MW-21B **Lab ID: 50372699007** Collected: 05/09/24 09:50 Received: 05/09/24 17:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**58.7**	mg/L	2.5	0.67	10		05/22/24 01:37	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/22/24 01:21	16984-48-8	
Sulfate	**479**	mg/L	25.0	19.0	100		05/22/24 01:54	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**769**	ug/L	100	6.2	1	05/20/24 16:10	05/21/24 12:00	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/20/24 16:10	05/21/24 12:00	7440-43-9	
Calcium	**274000**	ug/L	2000	135	2	05/20/24 16:10	05/21/24 17:21	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/20/24 16:10	05/21/24 12:00	7440-47-3	
Iron	**352**	ug/L	100	30.0	1	05/20/24 16:10	05/21/24 12:00	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/20/24 16:10	05/21/24 12:00	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/20/24 16:10	05/21/24 12:00	7439-93-2	
Magnesium	**61800**	ug/L	1000	33.6	1	05/20/24 16:10	05/21/24 12:00	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	05/20/24 16:10	05/21/24 12:00	7439-98-7	
Potassium	**1990**	ug/L	1000	97.8	1	05/20/24 16:10	05/21/24 12:00	7440-09-7	
Sodium	**34000**	ug/L	1000	54.8	1	05/20/24 16:10	05/21/24 12:00	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**814**	ug/L	100	6.2	1	05/17/24 07:53	05/18/24 03:03	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	05/17/24 07:53	05/18/24 03:03	7439-93-2	
Magnesium, Dissolved	**64400**	ug/L	1000	33.6	1	05/17/24 07:53	05/18/24 03:03	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	05/17/24 07:53	05/18/24 03:03	7439-98-7	
Potassium, Dissolved	**1940**	ug/L	1000	97.8	1	05/17/24 07:53	05/18/24 03:03	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.49	1	05/15/24 07:32	05/17/24 00:10	7440-36-0	
Arsenic	ND	ug/L	1.0	0.075	1	05/15/24 07:32	05/17/24 00:10	7440-38-2	
Barium	**55.3**	ug/L	1.0	0.077	1	05/15/24 07:32	05/17/24 00:10	7440-39-3	
Beryllium	ND	ug/L	0.20	0.035	1	05/15/24 07:32	05/17/24 00:10	7440-41-7	
Cobalt	**2.7**	ug/L	1.0	0.046	1	05/15/24 07:32	05/17/24 00:10	7440-48-4	
Manganese	**4000**	ug/L	40.0	6.7	40	05/15/24 07:32	05/17/24 15:49	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	05/15/24 07:32	05/17/24 00:10	7782-49-2	
Thallium	ND	ug/L	1.0	0.040	1	05/15/24 07:32	05/17/24 00:10	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/15/24 07:32	05/17/24 20:25	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/23/24 09:48	05/23/24 16:52	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Sample: MW-21B **Lab ID: 50372699007** Collected: 05/09/24 09:50 Received: 05/09/24 17:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**451**	mg/L	10.0	10.0	1		05/14/24 20:54		
Alkalinity,Bicarbonate (CaCO3)	**451**	mg/L	10.0	10.0	1		05/14/24 20:54		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/14/24 20:54		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1240**	mg/L	20.0	20.0	1		05/14/24 10:06		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.9**	Std. Units	0.10	0.10	1		05/21/24 11:42		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/10/24 12:56	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**0.20**	mg/L	0.10	0.013	1		05/10/24 02:07	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	05/22/24 11:30	05/23/24 15:36		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.0**	mg/L	1.0	0.25	1		05/21/24 18:18		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Sample: DUP-5 **Lab ID: 50372699008** Collected: 05/09/24 08:00 Received: 05/09/24 17:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**88.8**	mg/L	2.5	0.67	10		05/22/24 02:28	16887-00-6	
Fluoride	**0.19**	mg/L	0.10	0.017	1		05/22/24 02:11	16984-48-8	
Sulfate	**1380**	mg/L	25.0	19.0	100		05/22/24 02:45	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**11600**	ug/L	100	6.2	1	05/20/24 16:10	05/21/24 12:02	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/20/24 16:10	05/21/24 12:02	7440-43-9	
Calcium	**529000**	ug/L	5000	338	5	05/20/24 16:10	05/21/24 17:23	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/20/24 16:10	05/21/24 12:02	7440-47-3	
Iron	**6390**	ug/L	100	30.0	1	05/20/24 16:10	05/21/24 12:02	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/20/24 16:10	05/21/24 12:02	7439-92-1	
Lithium	**69.7**	ug/L	20.0	6.8	1	05/20/24 16:10	05/21/24 12:02	7439-93-2	
Magnesium	**39200**	ug/L	1000	33.6	1	05/20/24 16:10	05/21/24 12:02	7439-95-4	
Molybdenum	**179**	ug/L	10.0	0.78	1	05/20/24 16:10	05/21/24 12:02	7439-98-7	
Potassium	**18500**	ug/L	1000	97.8	1	05/20/24 16:10	05/21/24 12:02	7440-09-7	
Sodium	**60000**	ug/L	1000	54.8	1	05/20/24 16:10	05/21/24 12:02	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**11900**	ug/L	100	6.2	1	05/17/24 07:53	05/18/24 03:10	7440-42-8	
Lithium, Dissolved	**77.2**	ug/L	20.0	6.8	1	05/17/24 07:53	05/18/24 03:10	7439-93-2	
Magnesium, Dissolved	**40700**	ug/L	1000	33.6	1	05/17/24 07:53	05/18/24 03:10	7439-95-4	
Molybdenum, Dissolved	**183**	ug/L	10.0	0.78	1	05/17/24 07:53	05/18/24 03:10	7439-98-7	
Potassium, Dissolved	**19000**	ug/L	1000	97.8	1	05/17/24 07:53	05/18/24 03:10	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.49	1	05/15/24 07:32	05/17/24 00:21	7440-36-0	
Arsenic	**2.0**	ug/L	1.0	0.075	1	05/15/24 07:32	05/17/24 00:21	7440-38-2	
Barium	**30.7**	ug/L	1.0	0.077	1	05/15/24 07:32	05/17/24 00:21	7440-39-3	
Beryllium	ND	ug/L	0.20	0.035	1	05/15/24 07:32	05/17/24 00:21	7440-41-7	
Cobalt	ND	ug/L	1.0	0.046	1	05/15/24 07:32	05/17/24 00:21	7440-48-4	
Manganese	**855**	ug/L	10.0	1.7	10	05/15/24 07:32	05/17/24 16:12	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	05/15/24 07:32	05/17/24 00:21	7782-49-2	
Thallium	ND	ug/L	1.0	0.040	1	05/15/24 07:32	05/17/24 00:21	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/15/24 07:32	05/17/24 20:28	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/23/24 09:48	05/23/24 16:55	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Sample: DUP-5 **Lab ID: 50372699008** Collected: 05/09/24 08:00 Received: 05/09/24 17:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**111**	mg/L	10.0	10.0	1		05/14/24 20:54		
Alkalinity,Bicarbonate (CaCO3)	**111**	mg/L	10.0	10.0	1		05/14/24 20:54		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/14/24 20:54		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2180**	mg/L	20.0	20.0	1		05/14/24 10:06		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.8**	Std. Units	0.10	0.10	1		05/21/24 11:43		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/10/24 12:56	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/10/24 01:42	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.91**	mg/L	0.15	0.13	1	05/22/24 11:30	05/23/24 15:37		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.5**	mg/L	1.0	0.25	1		05/21/24 18:38		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

QC Batch: 791114
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372699001, 50372699004, 50372699005, 50372699006, 50372699007, 50372699008

METHOD BLANK: 3619993 Matrix: Water
Associated Lab Samples: 50372699001, 50372699004, 50372699005, 50372699006, 50372699007, 50372699008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/21/24 10:28	
Fluoride	mg/L	ND	0.10	0.017	05/21/24 10:28	
Sulfate	mg/L	ND	0.25	0.19	05/21/24 10:28	

LABORATORY CONTROL SAMPLE: 3619994

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.5	99	80-120	
Fluoride	mg/L	1	1.1	107	80-120	
Sulfate	mg/L	5	5.1	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3619995 3619996

Parameter	Units	50372699001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	170	25	25	192	191	86	83	80-120	0	15	
Fluoride	mg/L	ND	1	1	1.1	1.1	105	106	80-120	0	15	
Sulfate	mg/L	1780	500	500	2220	2220	89	89	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

QC Batch: 790805
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372699001, 50372699004, 50372699005, 50372699006, 50372699007, 50372699008

METHOD BLANK: 3618914 Matrix: Water
Associated Lab Samples: 50372699001, 50372699004, 50372699005, 50372699006, 50372699007, 50372699008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	05/23/24 16:33	

LABORATORY CONTROL SAMPLE: 3618915

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.2	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3618916 3618917

Parameter	Units	50372699001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.0	5.0	99	100	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

QC Batch: 789976
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372699001, 50372699004, 50372699005, 50372699006, 50372699007, 50372699008

METHOD BLANK: 3614567 Matrix: Water
Associated Lab Samples: 50372699001, 50372699004, 50372699005, 50372699006, 50372699007, 50372699008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	05/21/24 11:39	
Cadmium	ug/L	ND	2.0	0.60	05/21/24 11:39	
Calcium	ug/L	ND	1000	67.7	05/21/24 11:39	
Chromium	ug/L	ND	10.0	0.42	05/21/24 11:39	
Iron	ug/L	ND	100	30.0	05/21/24 11:39	
Lead	ug/L	ND	10.0	2.5	05/21/24 11:39	
Lithium	ug/L	ND	20.0	6.8	05/21/24 11:39	
Magnesium	ug/L	ND	1000	33.6	05/21/24 11:39	
Molybdenum	ug/L	ND	10.0	0.78	05/21/24 11:39	
Potassium	ug/L	ND	1000	97.8	05/21/24 11:39	
Sodium	ug/L	ND	1000	54.8	05/21/24 11:39	

LABORATORY CONTROL SAMPLE: 3614568

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	946	95	80-120	
Cadmium	ug/L	1000	927	93	80-120	
Calcium	ug/L	10000	9850	99	80-120	
Chromium	ug/L	1000	962	96	80-120	
Iron	ug/L	10000	9480	95	80-120	
Lead	ug/L	1000	920	92	80-120	
Lithium	ug/L	1000	948	95	80-120	
Magnesium	ug/L	10000	9330	93	80-120	
Molybdenum	ug/L	1000	983	98	80-120	
Potassium	ug/L	10000	9520	95	80-120	
Sodium	ug/L	10000	9240	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614569 3614570

Parameter	Units	50372699001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	28700	1000	1000	29000	29000	34	33	75-125	0	20	P6
Cadmium	ug/L	ND	1000	1000	976	967	98	97	75-125	1	20	
Calcium	ug/L	729000	10000	10000	733000	742000	36	127	75-125	1	20	P6
Chromium	ug/L	ND	1000	1000	975	965	98	96	75-125	1	20	
Iron	ug/L	7550	10000	10000	16800	16600	93	91	75-125	1	20	
Lead	ug/L	ND	1000	1000	895	890	89	89	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614569 3614570

Parameter	Units	50372699001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	ND	1000	1000	988	989	98	98	75-125	0	20	
Magnesium	ug/L	11300	10000	10000	20100	19900	88	85	75-125	1	20	
Molybdenum	ug/L	504	1000	1000	1500	1490	99	98	75-125	1	20	
Potassium	ug/L	15500	10000	10000	24700	25100	92	97	75-125	2	20	
Sodium	ug/L	49200	10000	10000	56800	57400	75	82	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

QC Batch: 789964
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372699001, 50372699004, 50372699005, 50372699006, 50372699007, 50372699008

METHOD BLANK: 3614519 Matrix: Water
Associated Lab Samples: 50372699001, 50372699004, 50372699005, 50372699006, 50372699007, 50372699008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	05/18/24 02:28	
Lithium, Dissolved	ug/L	ND	20.0	6.8	05/18/24 02:28	
Magnesium, Dissolved	ug/L	ND	1000	33.6	05/18/24 02:28	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	05/18/24 02:28	
Potassium, Dissolved	ug/L	ND	1000	97.8	05/18/24 02:28	

LABORATORY CONTROL SAMPLE: 3614520

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	1000	100	80-120	
Lithium, Dissolved	ug/L	1000	1010	101	80-120	
Magnesium, Dissolved	ug/L	10000	10100	101	80-120	
Molybdenum, Dissolved	ug/L	1000	1050	105	80-120	
Potassium, Dissolved	ug/L	10000	9960	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614521 3614522

Parameter	Units	50372699001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	28900	1000	1000	31000	30000	211	110	75-125	3	20	P6
Lithium, Dissolved	ug/L	ND	1000	1000	1050	1070	104	106	75-125	1	20	
Magnesium, Dissolved	ug/L	11700	10000	10000	21900	21500	102	97	75-125	2	20	
Molybdenum, Dissolved	ug/L	513	1000	1000	1630	1580	111	107	75-125	3	20	
Potassium, Dissolved	ug/L	15800	10000	10000	26100	25900	103	101	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

QC Batch: 789890
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372699001, 50372699004, 50372699005, 50372699006, 50372699007, 50372699008

METHOD BLANK: 3614037 Matrix: Water
Associated Lab Samples: 50372699001, 50372699004, 50372699005, 50372699006, 50372699007, 50372699008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.49	05/16/24 22:35	
Arsenic	ug/L	ND	1.0	0.075	05/16/24 22:35	
Barium	ug/L	ND	1.0	0.077	05/16/24 22:35	
Beryllium	ug/L	ND	0.20	0.035	05/16/24 22:35	
Cobalt	ug/L	ND	1.0	0.046	05/16/24 22:35	
Manganese	ug/L	ND	1.0	0.17	05/16/24 22:35	
Selenium	ug/L	ND	1.0	0.20	05/16/24 22:35	
Thallium	ug/L	ND	1.0	0.040	05/16/24 22:35	

LABORATORY CONTROL SAMPLE: 3614038

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	44.6	112	80-120	
Arsenic	ug/L	40	38.7	97	80-120	
Barium	ug/L	40	42.2	105	80-120	
Beryllium	ug/L	40	41.4	103	80-120	
Cobalt	ug/L	40	44.0	110	80-120	
Manganese	ug/L	40	44.0	110	80-120	
Selenium	ug/L	40	39.1	98	80-120	
Thallium	ug/L	40	44.4	111	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614039 3614040

Parameter	Units	50372699001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	41.6	41.7	104	104	75-125	0	20	
Arsenic	ug/L	1.2	40	40	40.1	40.3	97	98	75-125	1	20	
Barium	ug/L	31.0	40	40	72.6	73.7	104	107	75-125	1	20	
Beryllium	ug/L	ND	40	40	39.5	39.6	99	99	75-125	0	20	
Cobalt	ug/L	ND	40	40	38.6	39.1	95	96	75-125	2	20	
Manganese	ug/L	2590	40	40	2660	2650	176	151	75-125	0	20	P6
Selenium	ug/L	ND	40	40	44.6	44.3	111	110	75-125	1	20	
Thallium	ug/L	ND	40	40	43.2	43.3	108	108	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

QC Batch: 789891
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372699001, 50372699004, 50372699005, 50372699006, 50372699007, 50372699008

METHOD BLANK: 3614043 Matrix: Water
Associated Lab Samples: 50372699001, 50372699004, 50372699005, 50372699006, 50372699007, 50372699008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.3	05/16/24 19:21	

LABORATORY CONTROL SAMPLE: 3614044

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	392	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614045 3614046

Parameter	Units	50372699001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	385	390	96	97	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

QC Batch: 789933
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372699001, 50372699004, 50372699005, 50372699006, 50372699007, 50372699008

METHOD BLANK: 3614314 Matrix: Water
Associated Lab Samples: 50372699001, 50372699004, 50372699005, 50372699006, 50372699007, 50372699008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/14/24 20:54	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	05/14/24 20:54	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	05/14/24 20:54	

LABORATORY CONTROL SAMPLE: 3614315

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.8	104	90-110	

SAMPLE DUPLICATE: 3614316

Parameter	Units	50372851001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	317	320	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	317	320	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3614317

Parameter	Units	50372699001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	53.4	54.2	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	53.4	54.2	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

QC Batch: 789727 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372699001, 50372699004, 50372699005, 50372699006, 50372699007, 50372699008

METHOD BLANK: 3613467 Matrix: Water
Associated Lab Samples: 50372699001, 50372699004, 50372699005, 50372699006, 50372699007, 50372699008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/14/24 10:00	

LABORATORY CONTROL SAMPLE: 3613468

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	311	104	80-120	

SAMPLE DUPLICATE: 3613469

Parameter	Units	50372695003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	484	503	4	10	

SAMPLE DUPLICATE: 3613470

Parameter	Units	50372699001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2980	2800	6	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

QC Batch: 790453
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372699001, 50372699004, 50372699005, 50372699006, 50372699007, 50372699008

SAMPLE DUPLICATE: 3616928

Parameter	Units	50372699001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.8	6.7	1	2	H3

SAMPLE DUPLICATE: 3616929

Parameter	Units	50372783001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.0	7.0	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

QC Batch: 789192
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372699004, 50372699005, 50372699006, 50372699007, 50372699008

METHOD BLANK: 3610651 Matrix: Water
Associated Lab Samples: 50372699004, 50372699005, 50372699006, 50372699007, 50372699008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/10/24 12:56	

LABORATORY CONTROL SAMPLE: 3610652

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.49	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3610653 3610654

Parameter	Units	50372541002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.51	0.51	102	102	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3610655 3610656

Parameter	Units	50372593002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.47	0.47	93	94	90-110	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

QC Batch: 789288
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372699001

METHOD BLANK: 3611123 Matrix: Water
Associated Lab Samples: 50372699001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/10/24 13:43	

LABORATORY CONTROL SAMPLE: 3611124

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.50	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3611125 3611126

Parameter	Units	50372699001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.42	0.42	85	84	90-110	1	20	M3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

QC Batch: 789143
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372699001, 50372699006, 50372699007, 50372699008

METHOD BLANK: 3610365 Matrix: Water
Associated Lab Samples: 50372699001, 50372699006, 50372699007, 50372699008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/10/24 01:35	

LABORATORY CONTROL SAMPLE: 3610366

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3610367 3610368

Parameter	Units	50372699001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	0.79	0.79	79	79	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3610369 3610370

Parameter	Units	50372707005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	0.27	1	1	1.3	1.3	106	105	90-110	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

QC Batch: 789144
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372699004, 50372699005

METHOD BLANK: 3610371 Matrix: Water
Associated Lab Samples: 50372699004, 50372699005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/10/24 02:31	

LABORATORY CONTROL SAMPLE: 3610372

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3610373 3610374

Parameter	Units	50372707017 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.0	1.0	100	101	90-110	2	20	

MATRIX SPIKE SAMPLE: 3610375

Parameter	Units	50372707002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.0	100	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

QC Batch: 791329
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372699001, 50372699004, 50372699005, 50372699006, 50372699007, 50372699008

METHOD BLANK: 3620963 Matrix: Water
Associated Lab Samples: 50372699001, 50372699004, 50372699005, 50372699006, 50372699007, 50372699008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	05/23/24 15:29	

LABORATORY CONTROL SAMPLE: 3620964

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3620965 3620966

Parameter	Units	50372699001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	0.16			1.6	1.5				4		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

QC Batch: 791073 | Analysis Method: SM 5310C
QC Batch Method: SM 5310C | Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372699001, 50372699004, 50372699005, 50372699006, 50372699007, 50372699008

METHOD BLANK: 3619843 Matrix: Water
Associated Lab Samples: 50372699001, 50372699004, 50372699005, 50372699006, 50372699007, 50372699008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	05/21/24 12:27	

LABORATORY CONTROL SAMPLE: 3619844

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.5	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3619845 3619846

Parameter	Units	50372699001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.4	10	10	14.5	4.8	121	23	80-120	101	20	M3,R1

MATRIX SPIKE SAMPLE: 3619847

Parameter	Units	50372867001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	9.3	10	18.0	87	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Sample: AP-10A **Lab ID: 50372699001** Collected: 05/09/24 09:50 Received: 05/09/24 17:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.359 ± 0.505 (0.855) C:NA T:86%**	pCi/L	06/04/24 14:34	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.814 ± 0.437 (0.759) C:71% T:81%**	pCi/L	05/30/24 14:36	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.17 ± 0.942 (1.61)**	pCi/L	06/05/24 15:27	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Sample: AP-10A MS **Lab ID: 50372699002** Collected: 05/09/24 09:50 Received: 05/09/24 17:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**90.81 %REC ± NA (NA) C:NA T:NA**	pCi/L	06/04/24 14:34	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**79.85 %REC ± NA (NA) C:NA T:NA**	pCi/L	05/30/24 14:37	15262-20-1	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Sample: AP-10A MSD **Lab ID: 50372699003** Collected: 05/09/24 09:50 Received: 05/09/24 17:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**101.42 %REC 11.05RPD ± NA (NA) C:NA T:NA**	pCi/L	06/04/24 14:34	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**85.88 %REC 7.28RPD ± NA (NA) C:NA T:NA**	pCi/L	05/30/24 14:37	15262-20-1	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Sample: AP-10I **Lab ID: 50372699004** Collected: 05/09/24 12:23 Received: 05/09/24 17:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.364 ± 0.715 (1.27) C:NA T:88%**	pCi/L	06/04/24 14:34	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.744 ± 0.495 (0.961) C:78% T:84%**	pCi/L	05/30/24 14:37	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.11 ± 1.21 (2.23)**	pCi/L	06/05/24 15:27	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Sample: MW-21A **Lab ID: 50372699005** Collected: 05/09/24 14:25 Received: 05/09/24 17:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.445 ± 0.673 (1.15) C:NA T:86%**	pCi/L	06/04/24 14:34	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.412 ± 0.414 (0.854) C:79% T:81%**	pCi/L	05/30/24 14:37	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.857 ± 1.09 (2.00)**	pCi/L	06/05/24 15:27	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Sample: MW-21I **Lab ID: 50372699006** Collected: 05/09/24 12:00 Received: 05/09/24 17:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.591 ± 0.696 (1.14) C:NA T:91%**	pCi/L	06/04/24 14:34	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.852 ± 0.525 (1.01) C:77% T:84%**	pCi/L	05/30/24 14:37	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.44 ± 1.22 (2.15)**	pCi/L	06/05/24 15:27	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Sample: MW-21B **Lab ID: 50372699007** Collected: 05/09/24 09:50 Received: 05/09/24 17:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.546 ± 0.658 (1.08) C:NA T:85%**	pCi/L	06/04/24 14:34	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.287 ± 0.388 (0.830) C:78% T:84%**	pCi/L	05/30/24 14:37	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.833 ± 1.05 (1.91)**	pCi/L	06/05/24 15:27	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Sample: DUP-5 **Lab ID: 50372699008** Collected: 05/09/24 08:00 Received: 05/09/24 17:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.0618 ± 0.606 (1.20) C:NA T:87%**	pCi/L	06/04/24 14:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.126 ± 0.359 (0.807) C:74% T:80%**	pCi/L	05/30/24 14:37	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.126 ± 0.965 (2.01)**	pCi/L	06/05/24 15:27	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

QC Batch: 668771
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372699001, 50372699002, 50372699003, 50372699004, 50372699005, 50372699006, 50372699007, 50372699008

METHOD BLANK: 3256729 Matrix: Water
Associated Lab Samples: 50372699001, 50372699002, 50372699003, 50372699004, 50372699005, 50372699006, 50372699007, 50372699008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.0418 ± 0.339 (0.807) C:71% T:82%	pCi/L	05/30/24 14:36	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

QC Batch: 668770 Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372699001, 50372699002, 50372699003, 50372699004, 50372699005, 50372699006, 50372699007, 50372699008

METHOD BLANK: 3256728 Matrix: Water
Associated Lab Samples: 50372699001, 50372699002, 50372699003, 50372699004, 50372699005, 50372699006, 50372699007, 50372699008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.228 ± 0.269 (0.424) C:NA T:90%	pCi/L	06/04/24 14:34	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
R1	RPD value was outside control limits.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50372699001	**AP-10A**	EPA 9056	791114		
50372699004	**AP-10I**	EPA 9056	791114		
50372699005	**MW-21A**	EPA 9056	791114		
50372699006	**MW-21I**	EPA 9056	791114		
50372699007	**MW-21B**	EPA 9056	791114		
50372699008	**DUP-5**	EPA 9056	791114		
50372699001	**AP-10A**	EPA 3010	789976	EPA 6010	791131
50372699004	**AP-10I**	EPA 3010	789976	EPA 6010	791131
50372699005	**MW-21A**	EPA 3010	789976	EPA 6010	791131
50372699006	**MW-21I**	EPA 3010	789976	EPA 6010	791131
50372699007	**MW-21B**	EPA 3010	789976	EPA 6010	791131
50372699008	**DUP-5**	EPA 3010	789976	EPA 6010	791131
50372699001	**AP-10A**	EPA 3010	789964	EPA 6010	790711
50372699004	**AP-10I**	EPA 3010	789964	EPA 6010	790711
50372699005	**MW-21A**	EPA 3010	789964	EPA 6010	790711
50372699006	**MW-21I**	EPA 3010	789964	EPA 6010	790711
50372699007	**MW-21B**	EPA 3010	789964	EPA 6010	790711
50372699008	**DUP-5**	EPA 3010	789964	EPA 6010	790711
50372699001	**AP-10A**	EPA 200.2	789890	EPA 6020	790091
50372699004	**AP-10I**	EPA 200.2	789890	EPA 6020	790091
50372699005	**MW-21A**	EPA 200.2	789890	EPA 6020	790091
50372699006	**MW-21I**	EPA 200.2	789890	EPA 6020	790091
50372699007	**MW-21B**	EPA 200.2	789890	EPA 6020	790091
50372699008	**DUP-5**	EPA 200.2	789890	EPA 6020	790091
50372699001	**AP-10A**	EPA 200.2	789891	EPA 6020	790092
50372699004	**AP-10I**	EPA 200.2	789891	EPA 6020	790092
50372699005	**MW-21A**	EPA 200.2	789891	EPA 6020	790092
50372699006	**MW-21I**	EPA 200.2	789891	EPA 6020	790092
50372699007	**MW-21B**	EPA 200.2	789891	EPA 6020	790092
50372699008	**DUP-5**	EPA 200.2	789891	EPA 6020	790092
50372699001	**AP-10A**	EPA 7470	790805	EPA 7470	791742
50372699004	**AP-10I**	EPA 7470	790805	EPA 7470	791742
50372699005	**MW-21A**	EPA 7470	790805	EPA 7470	791742
50372699006	**MW-21I**	EPA 7470	790805	EPA 7470	791742
50372699007	**MW-21B**	EPA 7470	790805	EPA 7470	791742
50372699008	**DUP-5**	EPA 7470	790805	EPA 7470	791742
50372699001	**AP-10A**	EPA 903.1	668770		
50372699002	**AP-10A MS**	EPA 903.1	668770		
50372699003	**AP-10A MSD**	EPA 903.1	668770		
50372699004	**AP-10I**	EPA 903.1	668770		
50372699005	**MW-21A**	EPA 903.1	668770		
50372699006	**MW-21I**	EPA 903.1	668770		
50372699007	**MW-21B**	EPA 903.1	668770		
50372699008	**DUP-5**	EPA 903.1	668770		
50372699001	**AP-10A**	EPA 904.0	668771		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50372699002	**AP-10A MS**	EPA 904.0	668771		
50372699003	**AP-10A MSD**	EPA 904.0	668771		
50372699004	**AP-10I**	EPA 904.0	668771		
50372699005	**MW-21A**	EPA 904.0	668771		
50372699006	**MW-21I**	EPA 904.0	668771		
50372699007	**MW-21B**	EPA 904.0	668771		
50372699008	**DUP-5**	EPA 904.0	668771		
50372699001	**AP-10A**	Total Radium Calculation	673503		
50372699004	**AP-10I**	Total Radium Calculation	673503		
50372699005	**MW-21A**	Total Radium Calculation	673503		
50372699006	**MW-21I**	Total Radium Calculation	673503		
50372699007	**MW-21B**	Total Radium Calculation	673503		
50372699008	**DUP-5**	Total Radium Calculation	673503		
50372699001	**AP-10A**	SM 2320B	789933		
50372699004	**AP-10I**	SM 2320B	789933		
50372699005	**MW-21A**	SM 2320B	789933		
50372699006	**MW-21I**	SM 2320B	789933		
50372699007	**MW-21B**	SM 2320B	789933		
50372699008	**DUP-5**	SM 2320B	789933		
50372699001	**AP-10A**	SM 2540C	789727		
50372699004	**AP-10I**	SM 2540C	789727		
50372699005	**MW-21A**	SM 2540C	789727		
50372699006	**MW-21I**	SM 2540C	789727		
50372699007	**MW-21B**	SM 2540C	789727		
50372699008	**DUP-5**	SM 2540C	789727		
50372699001	**AP-10A**	SM 4500-H+B	790453		
50372699004	**AP-10I**	SM 4500-H+B	790453		
50372699005	**MW-21A**	SM 4500-H+B	790453		
50372699006	**MW-21I**	SM 4500-H+B	790453		
50372699007	**MW-21B**	SM 4500-H+B	790453		
50372699008	**DUP-5**	SM 4500-H+B	790453		
50372699001	**AP-10A**	SM 4500-S2-D	789288		
50372699004	**AP-10I**	SM 4500-S2-D	789192		
50372699005	**MW-21A**	SM 4500-S2-D	789192		
50372699006	**MW-21I**	SM 4500-S2-D	789192		
50372699007	**MW-21B**	SM 4500-S2-D	789192		
50372699008	**DUP-5**	SM 4500-S2-D	789192		
50372699001	**AP-10A**	EPA 353.2	789143		
50372699004	**AP-10I**	EPA 353.2	789144		
50372699005	**MW-21A**	EPA 353.2	789144		
50372699006	**MW-21I**	EPA 353.2	789143		
50372699007	**MW-21B**	EPA 353.2	789143		
50372699008	**DUP-5**	EPA 353.2	789143		
50372699001	**AP-10A**	EPA 365.1	791329	EPA 365.1	791781

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372699

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50372699004	**AP-10I**	EPA 365.1	791329	EPA 365.1	791781
50372699005	**MW-21A**	EPA 365.1	791329	EPA 365.1	791781
50372699006	**MW-21I**	EPA 365.1	791329	EPA 365.1	791781
50372699007	**MW-21B**	EPA 365.1	791329	EPA 365.1	791781
50372699008	**DUP-5**	EPA 365.1	791329	EPA 365.1	791781
50372699001	**AP-10A**	SM 5310C	791073		
50372699004	**AP-10I**	SM 5310C	791073		
50372699005	**MW-21A**	SM 5310C	791073		
50372699006	**MW-21I**	SM 5310C	791073		
50372699007	**MW-21B**	SM 5310C	791073		
50372699008	**DUP-5**	SM 5310C	791073		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO# : 50372699

50372699

Pace Analytical
WWW.PACELABS.COM

Request Document

relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:		Section B Required Project Information:		Invoice Information:		
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam	
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis	
	Indianapolis, IN 46256			Address:		Regulatory Agency
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:		
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P4 May 2024	Pace Project Manager:	Will Statz	State / Location
Requested Due Date:		Project #:	P4R3	Pace Profile #:	10498/60	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO3 Wet	(Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity,pH	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum	Residual Chlorine (Y/N)	
	MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																											
																			Y				Y					
1	AP-10A	WT	G	5/9/2024	0950				10	3	2	4		1														001/002/003
2	~~AP~~-10I				1223																							004
3	MS 5				0950																							N/A
4	MSD5				0950																							N/A
5	MW-21A				1425																							005
6	MW-21I				1200																							006
7	MW-21B				0950																							007
8	DUP-5				—																							008
9																												
10																												
11																												
12																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
* Metals: 6010 (B, Cd, Cr, Fe, Pb, Mo, Ca, Mg, Na, K, Li) (11)	Mohammed Bazlamit	5/9/24	15:00		5/9/24	15:00	0.8	Y	N	Y
6020 (Be, Mn, Co, As, Se, Sb, Ba, Tl) (8), 7470 (Hg)						17:30	4.1			
** Dissolved FF 6010 (B, Mo, Mg, K, Li) (5) FF 6020 (Al) (1)					DMRS	5/09/24	2.6			
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE				
PRINT Name of SAMPLER:	Mohammed Bazlamit		TEMP in C	Received on Ice (Y/N)
SIGNATURE of SAMPLER:		DATE Signed: 5/9/2024		Custody Sealed Cooler (Y/N) / Samples Intact (Y/N)

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 5/9/24 18:00 JG

1. **Courier:** ☐ FED EX ☐ UPS ☒ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☐ Yes ☒ No
   (If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G (H)
4. **Cooler Temperature(s):** (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

10/0.8	4.3/4.1	2.8/2.6	

5. **Packing Material:** ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☒ Wet ☐ Blue ☐ None
7. **Was the PM notified of out of temp cooler?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C
8. **EZ Bottle Order?** ☐ Yes ☒ No
   If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		—	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** ~~HNO3 (<2)~~ ~~H2SO4 (<2)~~ NaOH (>10) ~~NaOH/ZnAc (>9)~~ Any non-conformance to pH recommendations will be noted on the container count form	—		
Short Hold Time Analysis (48 hours or less)? **Analysis:** NO3	—					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 19:17		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A —
Rush TAT Requested (4 days or less):		—	Residual Chlorine Check (Total/Amenable/Free Cyanide)			—
Custody Signatures Present?	—		Headspace Wisconsin Sulfide?			—
Containers Intact?:	—		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent —	No VOA Vials Sent
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	—		Trip Blank Present?		—	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:		—	

COMMENTS: Line 9 on COC not rcvd. DMP 5/9/24

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) / SBS / DI / R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix
1													3			6	3	6	3	3	3		3					WT
2													1			2	1	2	1	1	1		1					↓
3																												
4																												
5													1			2	1	2	1	1	1		1					WT
6													↓			↓	↓	↓	↓	↓	↓		↓					↓
7													↓			↓	↓	↓	↓	↓	↓		↓					↓
8													↓			↓	↓	↓	↓	↓	↓		↓					↓
9																												
10																												
11																												
12																												

Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
Red	Yellow	Green	Black
HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP3R	250mL Unpres. FF SO4/OH buffer
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

July 24, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 P2R4
Pace Project No.: 50372772

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 10, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372772

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372772

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50372772001	**AP-7**	Water	05/09/24 14:55	05/10/24 09:50
50372772002	**AP-8**	Water	05/09/24 16:40	05/10/24 09:50

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372772

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50372772001	**AP-7**	EPA 9056	KBB	3	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	ELK	3	PASI-I
		EPA 6020	CAW	8	PASI-I
		EPA 6020	MTM	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	1	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50372772002	**AP-8**	EPA 9056	KBB	3	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	ELK	3	PASI-I
		EPA 6020	CAW	8	PASI-I
		EPA 6020	MTM	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	1	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372772

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372772001	**AP-7**					
EPA 9056	Chloride	4.5	mg/L	0.25	05/18/24 19:56	
EPA 9056	Fluoride	0.14	mg/L	0.10	05/18/24 19:56	
EPA 9056	Sulfate	332	mg/L	2.5	05/18/24 20:14	
EPA 6010	Boron	225	ug/L	100	05/21/24 12:20	
EPA 6010	Calcium	221000	ug/L	2000	05/21/24 17:25	
EPA 6010	Iron	21200	ug/L	100	05/21/24 12:20	
EPA 6010	Magnesium	64000	ug/L	1000	05/21/24 12:20	
EPA 6010	Potassium	2470	ug/L	1000	05/21/24 12:20	
EPA 6010	Sodium	11200	ug/L	1000	05/21/24 12:20	
EPA 6010	Boron, Dissolved	238	ug/L	100	05/17/24 14:31	
EPA 6020	Arsenic	1.7	ug/L	1.0	05/17/24 02:10	
EPA 6020	Barium	78.9	ug/L	1.0	05/17/24 02:10	
EPA 6020	Manganese	1570	ug/L	10.0	05/17/24 16:44	
EPA 903.1	Radium-226	0.000 ± 0.329 (0.714) C:NA T:82%	pCi/L		05/31/24 15:18	
EPA 904.0	Radium-228	0.434 ± 0.342 (0.667) C:76% T:84%	pCi/L		05/30/24 11:31	
Total Radium Calculation	Total Radium	0.434 ± 0.671 (1.38)	pCi/L		06/03/24 15:42	
SM 2320B	Alkalinity, Total as CaCO3	503	mg/L	10.0	05/14/24 20:54	
SM 2540C	Total Dissolved Solids	1050	mg/L	20.0	05/15/24 07:38	
SM 4500-H+B	pH at 25 Degrees C	6.8	Std. Units	0.10	05/21/24 11:49	H3
EPA 365.1	Phosphate as P04	0.35	mg/L	0.15	05/23/24 15:41	
SM 5310C	Dissolved Organic Carbon	4.6	mg/L	1.0	05/21/24 19:04	
50372772002	**AP-8**					
EPA 9056	Chloride	24.8	mg/L	0.25	05/18/24 20:31	
EPA 9056	Fluoride	0.81	mg/L	0.10	05/18/24 20:31	
EPA 9056	Sulfate	822	mg/L	25.0	05/18/24 20:49	
EPA 6010	Boron	847	ug/L	100	05/21/24 12:22	
EPA 6010	Cadmium	6.2	ug/L	2.0	05/21/24 12:22	
EPA 6010	Calcium	169000	ug/L	1000	05/21/24 12:22	
EPA 6010	Iron	169000	ug/L	100	05/21/24 12:22	
EPA 6010	Lithium	43.6	ug/L	20.0	05/21/24 12:22	
EPA 6010	Magnesium	43200	ug/L	1000	05/21/24 12:22	
EPA 6010	Potassium	5310	ug/L	1000	05/21/24 12:22	
EPA 6010	Sodium	14600	ug/L	1000	05/21/24 12:22	
EPA 6010	Boron, Dissolved	871	ug/L	100	05/17/24 14:33	
EPA 6010	Lithium, Dissolved	42.6	ug/L	20.0	05/17/24 14:33	
EPA 6020	Arsenic	7.8	ug/L	1.0	05/17/24 02:14	
EPA 6020	Barium	21.1	ug/L	1.0	05/17/24 02:14	
EPA 6020	Beryllium	2.1	ug/L	1.0	05/17/24 17:02	
EPA 6020	Cobalt	415	ug/L	5.0	05/17/24 17:02	
EPA 6020	Manganese	10700	ug/L	100	05/17/24 16:48	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372772

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372772002	**AP-8**					
EPA 6020	Selenium	1.3	ug/L	1.0	05/17/24 02:14	
EPA 6020	Aluminum, Dissolved	1060	ug/L	30.0	05/15/24 00:31	
EPA 903.1	Radium-226	0.329 ± 0.306 (0.403) C:NA T:89%	pCi/L		05/31/24 15:18	
EPA 904.0	Radium-228	0.851 ± 0.381 (0.617) C:85% T:83%	pCi/L		05/30/24 11:31	
Total Radium Calculation	Total Radium	1.18 ± 0.687 (1.02)	pCi/L		06/03/24 15:42	
SM 2320B	Alkalinity, Total as CaCO3	56.4	mg/L	10.0	05/14/24 20:54	
SM 2540C	Total Dissolved Solids	1400	mg/L	20.0	05/15/24 07:41	
SM 4500-H+B	pH at 25 Degrees C	6.1	Std. Units	0.10	05/21/24 11:50	H3
SM 5310C	Dissolved Organic Carbon	6.0	mg/L	1.0	05/21/24 19:24	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372772

Sample: AP-7 **Lab ID: 50372772001** Collected: 05/09/24 14:55 Received: 05/10/24 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**4.5**	mg/L	0.25	0.067	1		05/18/24 19:56	16887-00-6	
Fluoride	**0.14**	mg/L	0.10	0.017	1		05/18/24 19:56	16984-48-8	
Sulfate	**332**	mg/L	2.5	1.9	10		05/18/24 20:14	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**225**	ug/L	100	6.2	1	05/20/24 16:10	05/21/24 12:20	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/20/24 16:10	05/21/24 12:20	7440-43-9	
Calcium	**221000**	ug/L	2000	135	2	05/20/24 16:10	05/21/24 17:25	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/20/24 16:10	05/21/24 12:20	7440-47-3	
Iron	**21200**	ug/L	100	30.0	1	05/20/24 16:10	05/21/24 12:20	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/20/24 16:10	05/21/24 12:20	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/20/24 16:10	05/21/24 12:20	7439-93-2	
Magnesium	**64000**	ug/L	1000	33.6	1	05/20/24 16:10	05/21/24 12:20	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	05/20/24 16:10	05/21/24 12:20	7439-98-7	
Potassium	**2470**	ug/L	1000	97.8	1	05/20/24 16:10	05/21/24 12:20	7440-09-7	
Sodium	**11200**	ug/L	1000	54.8	1	05/20/24 16:10	05/21/24 12:20	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**238**	ug/L	100	6.2	1	05/16/24 20:40	05/17/24 14:31	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	05/16/24 20:40	05/17/24 14:31	7439-93-2	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	05/16/24 20:40	05/17/24 14:31	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.49	1	05/16/24 02:42	05/17/24 02:10	7440-36-0	
Arsenic	**1.7**	ug/L	1.0	0.075	1	05/16/24 02:42	05/17/24 02:10	7440-38-2	
Barium	**78.9**	ug/L	1.0	0.077	1	05/16/24 02:42	05/17/24 02:10	7440-39-3	
Beryllium	ND	ug/L	0.20	0.035	1	05/16/24 02:42	05/17/24 16:59	7440-41-7	
Cobalt	ND	ug/L	1.0	0.046	1	05/16/24 02:42	05/17/24 16:59	7440-48-4	
Manganese	**1570**	ug/L	10.0	1.7	10	05/16/24 02:42	05/17/24 16:44	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	05/16/24 02:42	05/17/24 02:10	7782-49-2	
Thallium	ND	ug/L	1.0	0.040	1	05/16/24 02:42	05/17/24 02:10	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	05/13/24 17:19	05/15/24 00:19	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/20/24 09:40	05/20/24 20:51	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372772

Sample: AP-7 **Lab ID: 50372772001** Collected: 05/09/24 14:55 Received: 05/10/24 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**503**	mg/L	10.0	10.0	1		05/14/24 20:54		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1050**	mg/L	20.0	20.0	1		05/15/24 07:38		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.8**	Std. Units	0.10	0.10	1		05/21/24 11:49		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/10/24 13:43	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/10/24 22:21	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.35**	mg/L	0.15	0.13	1	05/22/24 13:30	05/23/24 15:41		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**4.6**	mg/L	1.0	0.25	1		05/21/24 19:04		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372772

Sample: AP-8 **Lab ID: 50372772002** Collected: 05/09/24 16:40 Received: 05/10/24 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**24.8**	mg/L	0.25	0.067	1		05/18/24 20:31	16887-00-6	
Fluoride	**0.81**	mg/L	0.10	0.017	1		05/18/24 20:31	16984-48-8	
Sulfate	**822**	mg/L	25.0	19.0	100		05/18/24 20:49	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**847**	ug/L	100	6.2	1	05/20/24 16:10	05/21/24 12:22	7440-42-8	
Cadmium	**6.2**	ug/L	2.0	0.60	1	05/20/24 16:10	05/21/24 12:22	7440-43-9	
Calcium	**169000**	ug/L	1000	67.7	1	05/20/24 16:10	05/21/24 12:22	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/20/24 16:10	05/21/24 12:22	7440-47-3	
Iron	**169000**	ug/L	100	30.0	1	05/20/24 16:10	05/21/24 12:22	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/20/24 16:10	05/21/24 12:22	7439-92-1	
Lithium	**43.6**	ug/L	20.0	6.8	1	05/20/24 16:10	05/21/24 12:22	7439-93-2	
Magnesium	**43200**	ug/L	1000	33.6	1	05/20/24 16:10	05/21/24 12:22	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	05/20/24 16:10	05/21/24 12:22	7439-98-7	
Potassium	**5310**	ug/L	1000	97.8	1	05/20/24 16:10	05/21/24 12:22	7440-09-7	
Sodium	**14600**	ug/L	1000	54.8	1	05/20/24 16:10	05/21/24 12:22	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**871**	ug/L	100	6.2	1	05/16/24 20:40	05/17/24 14:33	7440-42-8	
Lithium, Dissolved	**42.6**	ug/L	20.0	6.8	1	05/16/24 20:40	05/17/24 14:33	7439-93-2	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	05/16/24 20:40	05/17/24 14:33	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.49	1	05/16/24 02:42	05/17/24 02:14	7440-36-0	
Arsenic	**7.8**	ug/L	1.0	0.075	1	05/16/24 02:42	05/17/24 02:14	7440-38-2	
Barium	**21.1**	ug/L	1.0	0.077	1	05/16/24 02:42	05/17/24 02:14	7440-39-3	
Beryllium	**2.1**	ug/L	1.0	0.18	5	05/16/24 02:42	05/17/24 17:02	7440-41-7	
Cobalt	**415**	ug/L	5.0	0.23	5	05/16/24 02:42	05/17/24 17:02	7440-48-4	
Manganese	**10700**	ug/L	100	16.8	100	05/16/24 02:42	05/17/24 16:48	7439-96-5	
Selenium	**1.3**	ug/L	1.0	0.20	1	05/16/24 02:42	05/17/24 02:14	7782-49-2	
Thallium	ND	ug/L	1.0	0.040	1	05/16/24 02:42	05/17/24 02:14	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	**1060**	ug/L	30.0	7.7	3	05/13/24 17:19	05/15/24 00:31	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/20/24 09:40	05/20/24 20:53	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372772

Sample: AP-8 **Lab ID: 50372772002** Collected: 05/09/24 16:40 Received: 05/10/24 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**56.4**	mg/L	10.0	10.0	1		05/14/24 20:54		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1400**	mg/L	20.0	20.0	1		05/15/24 07:41		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.1**	Std. Units	0.10	0.10	1		05/21/24 11:50		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/10/24 13:43	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/10/24 22:23	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	05/22/24 13:30	05/23/24 15:43		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**6.0**	mg/L	1.0	0.25	1		05/21/24 19:24		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372772

QC Batch: 789926
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372772001, 50372772002

METHOD BLANK: 3614276 Matrix: Water
Associated Lab Samples: 50372772001, 50372772002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/18/24 19:21	
Fluoride	mg/L	ND	0.10	0.017	05/18/24 19:21	
Sulfate	mg/L	ND	0.25	0.19	05/18/24 19:21	

LABORATORY CONTROL SAMPLE: 3614277

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	96	80-120	
Fluoride	mg/L	1	0.99	99	80-120	
Sulfate	mg/L	5	4.7	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614278 3614279

Parameter	Units	50372777001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	112000 ug/L	25	25	135	134	93	88	80-120	1	15	
Fluoride	mg/L	<100 ug/L	1	1	1.1	0.96	112	96	80-120	15	15	
Sulfate	mg/L	<2000 ug/L	5	5	5.6	4.5	110	88	80-120	22	15	R1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372772

QC Batch: 790391
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372772001, 50372772002

METHOD BLANK: 3616462 Matrix: Water
Associated Lab Samples: 50372772001, 50372772002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	05/20/24 19:02	

LABORATORY CONTROL SAMPLE: 3616463

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3616464 3616465

Parameter	Units	50372732002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.2	5.0	104	101	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372772

QC Batch: 789976
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372772001, 50372772002

METHOD BLANK: 3614567 Matrix: Water
Associated Lab Samples: 50372772001, 50372772002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	05/21/24 11:39	
Cadmium	ug/L	ND	2.0	0.60	05/21/24 11:39	
Calcium	ug/L	ND	1000	67.7	05/21/24 11:39	
Chromium	ug/L	ND	10.0	0.42	05/21/24 11:39	
Iron	ug/L	ND	100	30.0	05/21/24 11:39	
Lead	ug/L	ND	10.0	2.5	05/21/24 11:39	
Lithium	ug/L	ND	20.0	6.8	05/21/24 11:39	
Magnesium	ug/L	ND	1000	33.6	05/21/24 11:39	
Molybdenum	ug/L	ND	10.0	0.78	05/21/24 11:39	
Potassium	ug/L	ND	1000	97.8	05/21/24 11:39	
Sodium	ug/L	ND	1000	54.8	05/21/24 11:39	

LABORATORY CONTROL SAMPLE: 3614568

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	946	95	80-120	
Cadmium	ug/L	1000	927	93	80-120	
Calcium	ug/L	10000	9850	99	80-120	
Chromium	ug/L	1000	962	96	80-120	
Iron	ug/L	10000	9480	95	80-120	
Lead	ug/L	1000	920	92	80-120	
Lithium	ug/L	1000	948	95	80-120	
Magnesium	ug/L	10000	9330	93	80-120	
Molybdenum	ug/L	1000	983	98	80-120	
Potassium	ug/L	10000	9520	95	80-120	
Sodium	ug/L	10000	9240	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614569 3614570

Parameter	Units	50372699001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	28700	1000	1000	29000	29000	34	33	75-125	0	20	P6
Cadmium	ug/L	ND	1000	1000	976	967	98	97	75-125	1	20	
Calcium	ug/L	729000	10000	10000	733000	742000	36	127	75-125	1	20	P6
Chromium	ug/L	ND	1000	1000	975	965	98	96	75-125	1	20	
Iron	ug/L	7550	10000	10000	16800	16600	93	91	75-125	1	20	
Lead	ug/L	ND	1000	1000	895	890	89	89	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372772

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614569 3614570

Parameter	Units	50372699001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	ND	1000	1000	988	989	98	98	75-125	0	20	
Magnesium	ug/L	11300	10000	10000	20100	19900	88	85	75-125	1	20	
Molybdenum	ug/L	504	1000	1000	1500	1490	99	98	75-125	1	20	
Potassium	ug/L	15500	10000	10000	24700	25100	92	97	75-125	2	20	
Sodium	ug/L	49200	10000	10000	56800	57400	75	82	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372772

QC Batch: 789966
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372772001, 50372772002

METHOD BLANK: 3614527 Matrix: Water
Associated Lab Samples: 50372772001, 50372772002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	05/17/24 14:08	
Lithium, Dissolved	ug/L	ND	20.0	6.8	05/17/24 14:08	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	05/17/24 14:08	

LABORATORY CONTROL SAMPLE: 3614528

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	946	95	80-120	
Lithium, Dissolved	ug/L	1000	956	96	80-120	
Molybdenum, Dissolved	ug/L	1000	990	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614529 3614530

Parameter	Units	50372560002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	ND	1000	1000	1130	1130	103	103	75-125	0	20	
Lithium, Dissolved	ug/L	24.7	1000	1000	1050	1030	103	101	75-125	2	20	
Molybdenum, Dissolved	ug/L	18.5	1000	1000	1070	1070	105	105	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372772

QC Batch: 790198
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372772001, 50372772002

METHOD BLANK: 3615445 Matrix: Water
Associated Lab Samples: 50372772001, 50372772002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.49	05/17/24 02:03	
Arsenic	ug/L	ND	1.0	0.075	05/17/24 02:03	
Barium	ug/L	ND	1.0	0.077	05/17/24 02:03	
Beryllium	ug/L	ND	0.20	0.035	05/17/24 16:37	
Cobalt	ug/L	ND	1.0	0.046	05/17/24 16:37	
Manganese	ug/L	ND	1.0	0.17	05/17/24 16:37	
Selenium	ug/L	ND	1.0	0.20	05/17/24 02:03	
Thallium	ug/L	ND	1.0	0.040	05/17/24 02:03	

LABORATORY CONTROL SAMPLE: 3615446

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	41.5	104	80-120	
Arsenic	ug/L	40	38.7	97	80-120	
Barium	ug/L	40	39.4	98	80-120	
Beryllium	ug/L	40	39.8	99	80-120	
Cobalt	ug/L	40	40.8	102	80-120	
Manganese	ug/L	40	40.8	102	80-120	
Selenium	ug/L	40	39.5	99	80-120	
Thallium	ug/L	40	41.2	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3615447 3615448

Parameter	Units	50372781012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	<2.0	40	40	42.5	42.3	106	106	75-125	0	20	
Arsenic	ug/L	3.7	40	40	42.4	42.9	97	98	75-125	1	20	
Barium	ug/L	210	40	40	256	253	115	108	75-125	1	20	
Beryllium	ug/L	<1.0	40	40	37.4	37.8	93	95	75-125	1	20	
Cobalt	ug/L	<15.0	40	40	38.4	38.8	96	97	75-125	1	20	
Manganese	ug/L	54.1	40	40	92.7	93.5	96	98	75-125	1	20	
Selenium	ug/L	<2.0	40	40	39.6	39.0	99	98	75-125	1	20	
Thallium	ug/L	<2.0	40	40	42.3	43.0	106	108	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372772

QC Batch: 789628
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372772001, 50372772002

METHOD BLANK: 3613085 Matrix: Water
Associated Lab Samples: 50372772001, 50372772002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.6	05/14/24 23:27	

LABORATORY CONTROL SAMPLE: 3613086

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	438	110	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3613087 3613088

Parameter	Units	50372568004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	<10.0	400	400	414	418	102	103	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372772

QC Batch: 789933
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372772001, 50372772002

METHOD BLANK: 3614314 Matrix: Water
Associated Lab Samples: 50372772001, 50372772002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/14/24 20:54	

LABORATORY CONTROL SAMPLE: 3614315

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.8	104	90-110	

SAMPLE DUPLICATE: 3614316

Parameter	Units	50372851001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	317	320	1	20	

SAMPLE DUPLICATE: 3614317

Parameter	Units	50372699001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	53.4	54.2	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372772

QC Batch: 789730
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372772001, 50372772002

METHOD BLANK: 3613479 Matrix: Water
Associated Lab Samples: 50372772001, 50372772002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/15/24 07:35	

LABORATORY CONTROL SAMPLE: 3613480

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	295	98	80-120	

SAMPLE DUPLICATE: 3613481

Parameter	Units	50372770003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	375	379	1	10	

SAMPLE DUPLICATE: 3613482

Parameter	Units	50372835008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1490	1490	0	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372772

QC Batch: 790453
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372772001, 50372772002

SAMPLE DUPLICATE: 3616928

Parameter	Units	50372699001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.8	6.7	1	2	H3

SAMPLE DUPLICATE: 3616929

Parameter	Units	50372783001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.0	7.0	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372772

QC Batch: 789288
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372772001, 50372772002

METHOD BLANK: 3611123 Matrix: Water
Associated Lab Samples: 50372772001, 50372772002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/10/24 13:43	

LABORATORY CONTROL SAMPLE: 3611124

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.50	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3611125 3611126

Parameter	Units	50372699001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.42	0.42	85	84	90-110	1	20	M3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372772

QC Batch: 789370
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372772001, 50372772002

METHOD BLANK: 3611761 Matrix: Water
Associated Lab Samples: 50372772001, 50372772002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/10/24 21:45	

LABORATORY CONTROL SAMPLE: 3611762

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.1	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3611763 3611764

Parameter	Units	50372764005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	0.16	1	1	1.2	1.2	105	106	90-110	0	20	

MATRIX SPIKE SAMPLE: 3611765

Parameter	Units	50372871006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	6.2	5	11.0	96	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372772

QC Batch: 791331
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372772001, 50372772002

METHOD BLANK: 3620973 Matrix: Water
Associated Lab Samples: 50372772001, 50372772002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	05/23/24 15:38	

LABORATORY CONTROL SAMPLE: 3620974

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3620975 3620976

Parameter	Units	50373072001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	0.30			1.9	1.8				5		

MATRIX SPIKE SAMPLE: 3620977

Parameter	Units	50373288001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	3.9		5.6			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372772

QC Batch: 791073
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372772001, 50372772002

METHOD BLANK: 3619843 Matrix: Water
Associated Lab Samples: 50372772001, 50372772002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	05/21/24 12:27	

LABORATORY CONTROL SAMPLE: 3619844

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.5	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3619845 3619846

Parameter	Units	50372699001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.4	10	10	14.5	4.8	121	23	80-120	101	20	M3,R1

MATRIX SPIKE SAMPLE: 3619847

Parameter	Units	50372867001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	9.3	10	18.0	87	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372772

Sample: AP-7 **Lab ID: 50372772001** Collected: 05/09/24 14:55 Received: 05/10/24 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.000 ± 0.329 (0.714) C:NA T:82%**	pCi/L	05/31/24 15:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.434 ± 0.342 (0.667) C:76% T:84%**	pCi/L	05/30/24 11:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.434 ± 0.671 (1.38)**	pCi/L	06/03/24 15:42	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372772

Sample: AP-8 **Lab ID: 50372772002** Collected: 05/09/24 16:40 Received: 05/10/24 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.329 ± 0.306 (0.403) C:NA T:89%**	pCi/L	05/31/24 15:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.851 ± 0.381 (0.617) C:85% T:83%**	pCi/L	05/30/24 11:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.18 ± 0.687 (1.02)**	pCi/L	06/03/24 15:42	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372772

QC Batch: 668753
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372772001, 50372772002

METHOD BLANK: 3256684 Matrix: Water
Associated Lab Samples: 50372772001, 50372772002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.568 ± 0.369 (0.693) C:78% T:86%	pCi/L	05/30/24 11:30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372772

QC Batch: 668751
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372772001, 50372772002

METHOD BLANK: 3256682
Matrix: Water
Associated Lab Samples: 50372772001, 50372772002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.183 ± 0.284 (0.492) C:NA T:86%	pCi/L	05/31/24 15:18	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372772

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
R1	RPD value was outside control limits.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372772

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50372772001	**AP-7**	EPA 9056	789926		
50372772002	**AP-8**	EPA 9056	789926		
50372772001	**AP-7**	EPA 3010	789976	EPA 6010	791131
50372772002	**AP-8**	EPA 3010	789976	EPA 6010	791131
50372772001	**AP-7**	EPA 3010	789966	EPA 6010	790595
50372772002	**AP-8**	EPA 3010	789966	EPA 6010	790595
50372772001	**AP-7**	EPA 200.2	790198	EPA 6020	790382
50372772002	**AP-8**	EPA 200.2	790198	EPA 6020	790382
50372772001	**AP-7**	EPA 200.2	789628	EPA 6020	789715
50372772002	**AP-8**	EPA 200.2	789628	EPA 6020	789715
50372772001	**AP-7**	EPA 7470	790391	EPA 7470	790953
50372772002	**AP-8**	EPA 7470	790391	EPA 7470	790953
50372772001	**AP-7**	EPA 903.1	668751		
50372772002	**AP-8**	EPA 903.1	668751		
50372772001	**AP-7**	EPA 904.0	668753		
50372772002	**AP-8**	EPA 904.0	668753		
50372772001	**AP-7**	Total Radium Calculation	672832		
50372772002	**AP-8**	Total Radium Calculation	672832		
50372772001	**AP-7**	SM 2320B	789933		
50372772002	**AP-8**	SM 2320B	789933		
50372772001	**AP-7**	SM 2540C	789730		
50372772002	**AP-8**	SM 2540C	789730		
50372772001	**AP-7**	SM 4500-H+B	790453		
50372772002	**AP-8**	SM 4500-H+B	790453		
50372772001	**AP-7**	SM 4500-S2-D	789288		
50372772002	**AP-8**	SM 4500-S2-D	789288		
50372772001	**AP-7**	EPA 353.2	789370		
50372772002	**AP-8**	EPA 353.2	789370		
50372772001	**AP-7**	EPA 365.1	791331	EPA 365.1	791783
50372772002	**AP-8**	EPA 365.1	791331	EPA 365.1	791783
50372772001	**AP-7**	SM 5310C	791073		
50372772002	**AP-8**	SM 5310C	791073		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

50372772

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg May 2024 P2R4	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:		Pace Profile #:	10498/59

Regulatory Agency	
State / Location	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total Metals 6010/6020/7470	Diss Metals 6010/6020	DOC by 5310	Alkalinity/pH	Cl, F, SO4 by 9056	TDS by 2540C	Nitrate by 353.2	Phosphate by 365.1	Sulfide by 4500	Rad 226/228 + Sum to PA			Residual Chlorine (Y/N)	
1	AP-7	WT	G			5/9/24	1455		10	X	X	X		X					X	X	X	X	X	X	X	X	X			
2	AP-8	WT	G			5/9/24	1640		10	X	X	X		Y					X	X	X	X	X	X	X	X	X			
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Metals* 6010: B, Cd, Cr, Fe, Pb, Mo, Ca, Mg, Na, K, Li (11)		5/10/24	7:25 EDT		5/10	7:25				
6020: Be, Mn, Co, As, Se, Sb, Ba, Tl (8). 7470: Hg (1)	Joy Williams	5/10/24	9:50 EDT		5/10/24	950	1.7	Y	N	Y
Diss 6010: B, Mo, Li (3). Diss 6020: Al, Mn (2)										

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Josh O'Brien					
SIGNATURE of SAMPLER:		DATE Signed: 5-9-24				

F-IN-Q-290-rev.26, 30Apr2024

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 5/10/24 1057 MW

1. **Courier:** ☐ FED EX | UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT | OTHER _____
2. **Custody Seal on Cooler/Box Present:** | | Yes ☑ No
   (If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D (E) F G H
4. **Cooler Temperature(s):** 1.7 / 1.7 (Initial/Corrected) **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**

5. **Packing Material:** | ✓ Bubble Wrap | ✓ Bubble Bags | | None | | Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **Was the PM notified of out of temp cooler?:** | | Yes ☐ No
   Cooler temp should be above freezing to 6°C
8. **EZ Bottle Order?** | Yes | ✓ No
   If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.**	✓		
Short Hold Time Analysis (48 hours or less)? **Analysis:** nitrate	✓		**Circle:** **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 1230			Present	Absent	N/A ✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			
Custody Signatures Present?	✓		Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Containers Intact?:	✓		Headspace Wisconsin Sulfide?			✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Extra labels on Terracore Vials? (soils only)			Trip Blank Present?		✓	
			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC									OTHER						Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
			MeOH (only)																											Red	Yellow	Green	Black
			SBS		VOA VIAL HS >6mm																												
			DI	DG9H VG9H		VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
COC Line Item	WGFU	WGKU BG1U	R																													
1													1			2	1	2	1	1	1		1				WT	✓	✓		✓
2													1			1	1	1	1	1	1		1				1	1	1		1
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

August 01, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 10, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50372872001	**AP-10B**	Water	05/10/24 08:54	05/10/24 14:00
50372872002	**MW-29B**	Water	05/10/24 11:12	05/10/24 14:00
50372872003	**MW-29I**	Water	05/10/24 12:30	05/10/24 14:00
50372872004	**MW-29A**	Water	05/10/24 10:30	05/10/24 14:00

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50372872001	**AP-10B**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	ELK	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50372872002	**MW-29B**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	ELK	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50372872003	**MW-29I**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	ELK	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	CAW	1	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50372872004	**MW-29A**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	ELK	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372872001	**AP-10B**					
EPA 9056	Chloride	13.1	mg/L	0.25	05/23/24 06:58	
EPA 9056	Fluoride	0.13	mg/L	0.10	05/23/24 06:58	
EPA 9056	Sulfate	65.5	mg/L	2.5	05/23/24 07:15	
EPA 6010	Boron	567	ug/L	100	05/21/24 12:55	
EPA 6010	Calcium	126000	ug/L	1000	05/21/24 12:55	
EPA 6010	Magnesium	30700	ug/L	1000	05/21/24 12:55	
EPA 6010	Sodium	14300	ug/L	1000	05/21/24 12:55	
EPA 6010	Boron, Dissolved	613	ug/L	100	05/17/24 15:06	
EPA 6010	Magnesium, Dissolved	33300	ug/L	1000	05/17/24 15:06	
EPA 6020	Barium	87.6	ug/L	1.0	05/20/24 13:53	
EPA 6020	Selenium	1.7	ug/L	1.0	05/20/24 13:53	
EPA 903.1	Radium-226	-0.0649 ± 0.610 (1.22) C:NA T:83%	pCi/L		05/23/24 14:02	
EPA 904.0	Radium-228	0.780 ± 0.376 (0.629) C:80% T:85%	pCi/L		05/20/24 12:34	
Total Radium Calculation	Total Radium	0.780 ± 0.986 (1.85)	pCi/L		05/28/24 15:55	
SM 2320B	Alkalinity, Total as CaCO3	321	mg/L	10.0	05/13/24 21:06	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	321	mg/L	10.0	05/13/24 21:06	
SM 2540C	Total Dissolved Solids	481	mg/L	10.0	05/15/24 12:16	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	05/21/24 14:37	H3
EPA 353.2	Nitrogen, Nitrate	1.4	mg/L	0.10	05/10/24 22:25	
SM 5310C	Dissolved Organic Carbon	1.2	mg/L	1.0	05/21/24 19:56	
50372872002	**MW-29B**					
EPA 9056	Chloride	9.0	mg/L	0.25	05/23/24 07:32	
EPA 9056	Sulfate	28.6	mg/L	0.25	05/23/24 07:32	
EPA 6010	Boron	179	ug/L	100	05/21/24 12:57	
EPA 6010	Calcium	121000	ug/L	1000	05/21/24 12:57	
EPA 6010	Magnesium	22600	ug/L	1000	05/21/24 12:57	
EPA 6010	Sodium	5320	ug/L	1000	05/21/24 12:57	
EPA 6010	Boron, Dissolved	186	ug/L	100	05/17/24 14:36	
EPA 6010	Magnesium, Dissolved	24400	ug/L	1000	05/17/24 14:36	
EPA 6020	Barium	68.9	ug/L	1.0	05/20/24 14:15	
EPA 6020	Cobalt	1.4	ug/L	1.0	05/20/24 14:15	
EPA 6020	Manganese	1780	ug/L	20.0	05/20/24 13:56	
EPA 903.1	Radium-226	0.553 ± 0.578 (0.906) C:NA T:84%	pCi/L		05/23/24 14:02	
EPA 904.0	Radium-228	0.478 ± 0.335 (0.637) C:76% T:84%	pCi/L		05/20/24 12:34	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372872002	**MW-29B**					
Total Radium Calculation	Total Radium	1.03 ± 0.913 (1.54)	pCi/L		05/28/24 15:55	
SM 2320B	Alkalinity, Total as CaCO3	391	mg/L	10.0	05/13/24 21:06	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	391	mg/L	10.0	05/13/24 21:06	
SM 2540C	Total Dissolved Solids	397	mg/L	10.0	05/15/24 12:16	
SM 4500-H+B	pH at 25 Degrees C	7.0	Std. Units	0.10	05/21/24 14:38	H3
EPA 353.2	Nitrogen, Nitrate	0.36	mg/L	0.10	05/10/24 22:52	
SM 5310C	Dissolved Organic Carbon	1.3	mg/L	1.0	05/21/24 20:22	
50372872003	**MW-29I**					
EPA 9056	Chloride	18.8	mg/L	0.25	05/23/24 08:05	
EPA 9056	Sulfate	185	mg/L	2.5	05/23/24 08:22	
EPA 6010	Boron	1640	ug/L	100	05/21/24 12:59	
EPA 6010	Calcium	137000	ug/L	1000	05/21/24 12:59	
EPA 6010	Iron	3830	ug/L	100	05/21/24 12:59	
EPA 6010	Magnesium	30800	ug/L	1000	05/21/24 12:59	
EPA 6010	Sodium	7490	ug/L	1000	05/21/24 12:59	
EPA 6010	Boron, Dissolved	1760	ug/L	100	05/17/24 14:38	
EPA 6010	Magnesium, Dissolved	33500	ug/L	1000	05/17/24 14:38	
EPA 6020	Barium	69.3	ug/L	1.0	05/20/24 14:18	
EPA 6020	Manganese	1760	ug/L	20.0	05/20/24 14:00	
EPA 903.1	Radium-226	0.473 ± 0.638 (1.07) C:NA T:86%	pCi/L		05/23/24 14:02	
EPA 904.0	Radium-228	0.299 ± 0.317 (0.656) C:80% T:84%	pCi/L		05/20/24 12:34	
Total Radium Calculation	Total Radium	0.772 ± 0.955 (1.73)	pCi/L		05/28/24 15:55	
SM 2320B	Alkalinity, Total as CaCO3	316	mg/L	10.0	05/13/24 21:06	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	316	mg/L	10.0	05/13/24 21:06	
SM 2540C	Total Dissolved Solids	570	mg/L	10.0	05/15/24 12:16	
SM 4500-H+B	pH at 25 Degrees C	6.9	Std. Units	0.10	05/21/24 14:39	H3
EPA 365.1	Phosphate as P04	0.40	mg/L	0.15	05/23/24 15:46	
50372872004	**MW-29A**					
EPA 9056	Chloride	72.5	mg/L	2.5	05/23/24 08:56	
EPA 9056	Sulfate	1030	mg/L	25.0	05/23/24 09:13	
EPA 6010	Boron	12900	ug/L	100	05/21/24 13:00	
EPA 6010	Calcium	428000	ug/L	5000	05/21/24 18:17	
EPA 6010	Iron	8560	ug/L	100	05/21/24 13:00	
EPA 6010	Magnesium	47500	ug/L	1000	05/21/24 13:00	
EPA 6010	Molybdenum	235	ug/L	10.0	05/21/24 13:00	
EPA 6010	Potassium	4370	ug/L	1000	05/21/24 13:00	
EPA 6010	Sodium	29000	ug/L	1000	05/21/24 13:00	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372872004	**MW-29A**					
EPA 6010	Boron, Dissolved	13200	ug/L	100	05/17/24 14:40	
EPA 6010	Magnesium, Dissolved	48300	ug/L	1000	05/17/24 14:40	
EPA 6010	Molybdenum, Dissolved	242	ug/L	10.0	05/17/24 14:40	
EPA 6010	Potassium, Dissolved	4440	ug/L	1000	05/17/24 14:40	
EPA 6020	Arsenic	1.2	ug/L	1.0	05/20/24 14:22	
EPA 6020	Barium	35.4	ug/L	1.0	05/20/24 14:22	
EPA 6020	Cobalt	2.0	ug/L	1.0	05/20/24 14:22	
EPA 6020	Manganese	1710	ug/L	10.0	05/20/24 14:04	
EPA 903.1	Radium-226	-0.0586 ± 0.717 (1.38) C:NA T:88%	pCi/L		05/23/24 14:02	
EPA 904.0	Radium-228	0.226 ± 0.329 (0.708) C:80% T:86%	pCi/L		05/20/24 12:34	
Total Radium Calculation	Total Radium	0.226 ± 1.05 (2.09)	pCi/L		05/28/24 15:55	
SM 2320B	Alkalinity, Total as CaCO3	205	mg/L	10.0	05/13/24 21:06	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	205	mg/L	10.0	05/13/24 21:06	
SM 2540C	Total Dissolved Solids	1760	mg/L	20.0	05/15/24 12:16	
SM 4500-H+B	pH at 25 Degrees C	6.7	Std. Units	0.10	05/21/24 14:39	H3
EPA 365.1	Phosphate as P04	0.41	mg/L	0.15	05/23/24 15:47	
SM 5310C	Dissolved Organic Carbon	1.5	mg/L	1.0	05/21/24 21:51	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

Sample: AP-10B **Lab ID: 50372872001** Collected: 05/10/24 08:54 Received: 05/10/24 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**13.1**	mg/L	0.25	0.067	1		05/23/24 06:58	16887-00-6	
Fluoride	**0.13**	mg/L	0.10	0.017	1		05/23/24 06:58	16984-48-8	
Sulfate	**65.5**	mg/L	2.5	1.9	10		05/23/24 07:15	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**567**	ug/L	100	6.2	1	05/20/24 08:15	05/21/24 12:55	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/20/24 08:15	05/21/24 12:55	7440-43-9	
Calcium	**126000**	ug/L	1000	67.7	1	05/20/24 08:15	05/21/24 12:55	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/20/24 08:15	05/21/24 12:55	7440-47-3	
Iron	ND	ug/L	100	30.0	1	05/20/24 08:15	05/21/24 12:55	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/20/24 08:15	05/21/24 12:55	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/20/24 08:15	05/21/24 12:55	7439-93-2	
Magnesium	**30700**	ug/L	1000	33.6	1	05/20/24 08:15	05/21/24 12:55	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	05/20/24 08:15	05/21/24 12:55	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	05/20/24 08:15	05/21/24 12:55	7440-09-7	
Sodium	**14300**	ug/L	1000	54.8	1	05/20/24 08:15	05/21/24 12:55	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**613**	ug/L	100	6.2	1	05/16/24 20:40	05/17/24 15:06	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	05/16/24 20:40	05/17/24 15:06	7439-93-2	
Magnesium, Dissolved	**33300**	ug/L	1000	33.6	1	05/16/24 20:40	05/17/24 15:06	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	05/16/24 20:40	05/17/24 15:06	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	97.8	1	05/16/24 20:40	05/17/24 15:06	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.044	1	05/16/24 15:20	05/20/24 13:53	7440-36-0	
Arsenic	ND	ug/L	1.0	0.064	1	05/16/24 15:20	05/20/24 13:53	7440-38-2	
Barium	**87.6**	ug/L	1.0	0.067	1	05/16/24 15:20	05/20/24 13:53	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	05/16/24 15:20	05/21/24 10:32	7440-41-7	
Cobalt	ND	ug/L	1.0	0.024	1	05/16/24 15:20	05/20/24 13:53	7440-48-4	
Manganese	ND	ug/L	1.0	0.043	1	05/16/24 15:20	05/20/24 13:53	7439-96-5	
Selenium	**1.7**	ug/L	1.0	0.23	1	05/16/24 15:20	05/20/24 13:53	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	05/16/24 15:20	05/20/24 13:53	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/15/24 07:32	05/17/24 20:36	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/23/24 09:52	05/23/24 18:20	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

Sample: AP-10B **Lab ID: 50372872001** Collected: 05/10/24 08:54 Received: 05/10/24 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**321**	mg/L	10.0	10.0	1		05/13/24 21:06		
Alkalinity,Bicarbonate (CaCO3)	**321**	mg/L	10.0	10.0	1		05/13/24 21:06		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/13/24 21:06		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**481**	mg/L	10.0	10.0	1		05/15/24 12:16		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		05/21/24 14:37		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/13/24 14:13	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**1.4**	mg/L	0.10	0.013	1		05/10/24 22:25	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	05/22/24 13:30	05/23/24 15:45		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.2**	mg/L	1.0	0.25	1		05/21/24 19:56		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

Sample: MW-29B **Lab ID: 50372872002** Collected: 05/10/24 11:12 Received: 05/10/24 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**9.0**	mg/L	0.25	0.067	1		05/23/24 07:32	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/23/24 07:32	16984-48-8	
Sulfate	**28.6**	mg/L	0.25	0.19	1		05/23/24 07:32	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**179**	ug/L	100	6.2	1	05/20/24 08:15	05/21/24 12:57	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/20/24 08:15	05/21/24 12:57	7440-43-9	
Calcium	**121000**	ug/L	1000	67.7	1	05/20/24 08:15	05/21/24 12:57	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/20/24 08:15	05/21/24 12:57	7440-47-3	
Iron	ND	ug/L	100	30.0	1	05/20/24 08:15	05/21/24 12:57	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/20/24 08:15	05/21/24 12:57	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/20/24 08:15	05/21/24 12:57	7439-93-2	
Magnesium	**22600**	ug/L	1000	33.6	1	05/20/24 08:15	05/21/24 12:57	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	05/20/24 08:15	05/21/24 12:57	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	05/20/24 08:15	05/21/24 12:57	7440-09-7	
Sodium	**5320**	ug/L	1000	54.8	1	05/20/24 08:15	05/21/24 12:57	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**186**	ug/L	100	6.2	1	05/16/24 20:40	05/17/24 14:36	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	05/16/24 20:40	05/17/24 14:36	7439-93-2	
Magnesium, Dissolved	**24400**	ug/L	1000	33.6	1	05/16/24 20:40	05/17/24 14:36	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	05/16/24 20:40	05/17/24 14:36	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	97.8	1	05/16/24 20:40	05/17/24 14:36	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.044	1	05/16/24 15:20	05/20/24 14:15	7440-36-0	
Arsenic	ND	ug/L	1.0	0.064	1	05/16/24 15:20	05/20/24 14:15	7440-38-2	
Barium	**68.9**	ug/L	1.0	0.067	1	05/16/24 15:20	05/20/24 14:15	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	05/16/24 15:20	05/21/24 10:28	7440-41-7	
Cobalt	**1.4**	ug/L	1.0	0.024	1	05/16/24 15:20	05/20/24 14:15	7440-48-4	
Manganese	**1780**	ug/L	20.0	0.86	20	05/16/24 15:20	05/20/24 13:56	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	05/16/24 15:20	05/20/24 14:15	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	05/16/24 15:20	05/20/24 14:15	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/15/24 07:32	05/20/24 17:55	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/23/24 09:52	05/23/24 18:23	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

Sample: MW-29B **Lab ID: 50372872002** Collected: 05/10/24 11:12 Received: 05/10/24 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**391**	mg/L	10.0	10.0	1		05/13/24 21:06		
Alkalinity,Bicarbonate (CaCO3)	**391**	mg/L	10.0	10.0	1		05/13/24 21:06		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/13/24 21:06		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**397**	mg/L	10.0	10.0	1		05/15/24 12:16		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.0**	Std. Units	0.10	0.10	1		05/21/24 14:38		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/13/24 14:13	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**0.36**	mg/L	0.10	0.013	1		05/10/24 22:52	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	05/22/24 13:30	05/23/24 15:46		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.3**	mg/L	1.0	0.25	1		05/21/24 20:22		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

Sample: MW-29I **Lab ID: 50372872003** Collected: 05/10/24 12:30 Received: 05/10/24 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**18.8**	mg/L	0.25	0.067	1		05/23/24 08:05	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/23/24 08:05	16984-48-8	
Sulfate	**185**	mg/L	2.5	1.9	10		05/23/24 08:22	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**1640**	ug/L	100	6.2	1	05/20/24 08:15	05/21/24 12:59	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/20/24 08:15	05/21/24 12:59	7440-43-9	
Calcium	**137000**	ug/L	1000	67.7	1	05/20/24 08:15	05/21/24 12:59	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/20/24 08:15	05/21/24 12:59	7440-47-3	
Iron	**3830**	ug/L	100	30.0	1	05/20/24 08:15	05/21/24 12:59	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/20/24 08:15	05/21/24 12:59	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/20/24 08:15	05/21/24 12:59	7439-93-2	
Magnesium	**30800**	ug/L	1000	33.6	1	05/20/24 08:15	05/21/24 12:59	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	05/20/24 08:15	05/21/24 12:59	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	05/20/24 08:15	05/21/24 12:59	7440-09-7	
Sodium	**7490**	ug/L	1000	54.8	1	05/20/24 08:15	05/21/24 12:59	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1760**	ug/L	100	6.2	1	05/16/24 20:40	05/17/24 14:38	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	05/16/24 20:40	05/17/24 14:38	7439-93-2	
Magnesium, Dissolved	**33500**	ug/L	1000	33.6	1	05/16/24 20:40	05/17/24 14:38	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	05/16/24 20:40	05/17/24 14:38	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	97.8	1	05/16/24 20:40	05/17/24 14:38	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.044	1	05/16/24 15:20	05/20/24 14:18	7440-36-0	
Arsenic	ND	ug/L	1.0	0.064	1	05/16/24 15:20	05/20/24 14:18	7440-38-2	
Barium	**69.3**	ug/L	1.0	0.067	1	05/16/24 15:20	05/20/24 14:18	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	05/16/24 15:20	05/21/24 10:25	7440-41-7	
Cobalt	ND	ug/L	1.0	0.024	1	05/16/24 15:20	05/20/24 14:18	7440-48-4	
Manganese	**1760**	ug/L	20.0	0.86	20	05/16/24 15:20	05/20/24 14:00	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	05/16/24 15:20	05/20/24 14:18	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	05/16/24 15:20	05/20/24 14:18	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/15/24 07:32	05/20/24 17:59	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/23/24 09:52	05/23/24 18:25	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

Sample: MW-29I **Lab ID: 50372872003** Collected: 05/10/24 12:30 Received: 05/10/24 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**316**	mg/L	10.0	10.0	1		05/13/24 21:06		
Alkalinity,Bicarbonate (CaCO3)	**316**	mg/L	10.0	10.0	1		05/13/24 21:06		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/13/24 21:06		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**570**	mg/L	10.0	10.0	1		05/15/24 12:16		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.9**	Std. Units	0.10	0.10	1		05/21/24 14:39		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/13/24 14:13	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/10/24 23:07	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.40**	mg/L	0.15	0.13	1	05/22/24 13:30	05/23/24 15:46		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.25	1		05/21/24 21:26		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

Sample: MW-29A **Lab ID: 50372872004** Collected: 05/10/24 10:30 Received: 05/10/24 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**72.5**	mg/L	2.5	0.67	10		05/23/24 08:56	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/23/24 08:39	16984-48-8	
Sulfate	**1030**	mg/L	25.0	19.0	100		05/23/24 09:13	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**12900**	ug/L	100	6.2	1	05/20/24 08:15	05/21/24 13:00	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/20/24 08:15	05/21/24 13:00	7440-43-9	
Calcium	**428000**	ug/L	5000	338	5	05/20/24 08:15	05/21/24 18:17	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/20/24 08:15	05/21/24 13:00	7440-47-3	
Iron	**8560**	ug/L	100	30.0	1	05/20/24 08:15	05/21/24 13:00	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/20/24 08:15	05/21/24 13:00	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/20/24 08:15	05/21/24 13:00	7439-93-2	
Magnesium	**47500**	ug/L	1000	33.6	1	05/20/24 08:15	05/21/24 13:00	7439-95-4	
Molybdenum	**235**	ug/L	10.0	0.78	1	05/20/24 08:15	05/21/24 13:00	7439-98-7	
Potassium	**4370**	ug/L	1000	97.8	1	05/20/24 08:15	05/21/24 13:00	7440-09-7	
Sodium	**29000**	ug/L	1000	54.8	1	05/20/24 08:15	05/21/24 13:00	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**13200**	ug/L	100	6.2	1	05/16/24 20:40	05/17/24 14:40	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	05/16/24 20:40	05/17/24 14:40	7439-93-2	
Magnesium, Dissolved	**48300**	ug/L	1000	33.6	1	05/16/24 20:40	05/17/24 14:40	7439-95-4	
Molybdenum, Dissolved	**242**	ug/L	10.0	0.78	1	05/16/24 20:40	05/17/24 14:40	7439-98-7	
Potassium, Dissolved	**4440**	ug/L	1000	97.8	1	05/16/24 20:40	05/17/24 14:40	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.044	1	05/16/24 15:20	05/20/24 14:22	7440-36-0	
Arsenic	**1.2**	ug/L	1.0	0.064	1	05/16/24 15:20	05/20/24 14:22	7440-38-2	
Barium	**35.4**	ug/L	1.0	0.067	1	05/16/24 15:20	05/20/24 14:22	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	05/16/24 15:20	05/21/24 10:21	7440-41-7	
Cobalt	**2.0**	ug/L	1.0	0.024	1	05/16/24 15:20	05/20/24 14:22	7440-48-4	
Manganese	**1710**	ug/L	10.0	0.43	10	05/16/24 15:20	05/20/24 14:04	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	05/16/24 15:20	05/20/24 14:22	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	05/16/24 15:20	05/20/24 14:22	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/15/24 07:32	05/20/24 18:10	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/23/24 09:52	05/23/24 18:35	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

Sample: MW-29A **Lab ID: 50372872004** Collected: 05/10/24 10:30 Received: 05/10/24 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**205**	mg/L	10.0	10.0	1		05/13/24 21:06		
Alkalinity,Bicarbonate (CaCO3)	**205**	mg/L	10.0	10.0	1		05/13/24 21:06		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/13/24 21:06		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1760**	mg/L	20.0	20.0	1		05/15/24 12:16		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.7**	Std. Units	0.10	0.10	1		05/21/24 14:39		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/13/24 14:13	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/10/24 22:34	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.41**	mg/L	0.15	0.13	1	05/22/24 13:30	05/23/24 15:47		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.5**	mg/L	1.0	0.25	1		05/21/24 21:51		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

QC Batch: 791424
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372872001, 50372872002, 50372872003, 50372872004

METHOD BLANK: 3621345 Matrix: Water
Associated Lab Samples: 50372872001, 50372872002, 50372872003, 50372872004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/23/24 10:54	
Fluoride	mg/L	ND	0.10	0.017	05/23/24 10:54	
Sulfate	mg/L	ND	0.25	0.19	05/23/24 10:54	

LABORATORY CONTROL SAMPLE: 3621346

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.5	99	80-120	
Fluoride	mg/L	1	1.1	110	80-120	
Sulfate	mg/L	5	5.1	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3621347 3621348

Parameter	Units	50373789001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	3.1	2.5	2.5	5.5	5.5	96	95	80-120	0	15	
Fluoride	mg/L	ND	1	1	1.2	1.2	107	108	80-120	1	15	
Sulfate	mg/L	7.3	5	5	12.1	12.1	97	97	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

QC Batch: 790807
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372872001, 50372872002, 50372872003, 50372872004

METHOD BLANK: 3618918 Matrix: Water
Associated Lab Samples: 50372872001, 50372872002, 50372872003, 50372872004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	05/23/24 17:36	

LABORATORY CONTROL SAMPLE: 3618919

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.9	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3618920 3618921

Parameter	Units	50372861001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.2	5.2	103	104	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

QC Batch: 789977
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372872001, 50372872002, 50372872003, 50372872004

METHOD BLANK: 3614571 Matrix: Water
Associated Lab Samples: 50372872001, 50372872002, 50372872003, 50372872004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	05/21/24 12:34	
Cadmium	ug/L	ND	2.0	0.60	05/21/24 12:34	
Calcium	ug/L	ND	1000	67.7	05/21/24 12:34	
Chromium	ug/L	ND	10.0	0.42	05/21/24 12:34	
Iron	ug/L	ND	100	30.0	05/21/24 12:34	
Lead	ug/L	ND	10.0	2.5	05/21/24 12:34	
Lithium	ug/L	ND	20.0	6.8	05/21/24 12:34	
Magnesium	ug/L	ND	1000	33.6	05/21/24 12:34	
Molybdenum	ug/L	ND	10.0	0.78	05/21/24 12:34	
Potassium	ug/L	ND	1000	97.8	05/21/24 12:34	
Sodium	ug/L	ND	1000	54.8	05/21/24 12:34	

LABORATORY CONTROL SAMPLE: 3614572

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	994	99	80-120	
Cadmium	ug/L	1000	972	97	80-120	
Calcium	ug/L	10000	10300	103	80-120	
Chromium	ug/L	1000	1010	101	80-120	
Iron	ug/L	10000	9930	99	80-120	
Lead	ug/L	1000	964	96	80-120	
Lithium	ug/L	1000	989	99	80-120	
Magnesium	ug/L	10000	9800	98	80-120	
Molybdenum	ug/L	1000	1030	103	80-120	
Potassium	ug/L	10000	10000	100	80-120	
Sodium	ug/L	10000	9710	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614573 3614574

Parameter	Units	50372874001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	136	1000	1000	1090	1070	95	93	75-125	2	20	
Cadmium	ug/L	<0.60	1000	1000	945	938	94	94	75-125	1	20	
Calcium	ug/L	165000	10000	10000	177000	174000	115	83	75-125	2	20	
Chromium	ug/L	20.5	1000	1000	978	970	96	95	75-125	1	20	
Iron	ug/L	14800	10000	10000	24000	23100	92	83	75-125	4	20	
Lead	ug/L	14.5	1000	1000	913	906	90	89	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614573 3614574

Parameter	Units	50372874001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	11.5J	1000	1000	969	972	96	96	75-125	0	20	
Magnesium	ug/L	52400	10000	10000	62100	60800	98	84	75-125	2	20	
Molybdenum	ug/L	5.7J	1000	1000	994	986	99	98	75-125	1	20	
Potassium	ug/L	4440	10000	10000	14600	14600	102	101	75-125	0	20	
Sodium	ug/L	13700	10000	10000	23200	23100	95	94	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

QC Batch: 789966
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372872001, 50372872002, 50372872003, 50372872004

METHOD BLANK: 3614527 Matrix: Water
Associated Lab Samples: 50372872001, 50372872002, 50372872003, 50372872004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	05/17/24 14:08	
Lithium, Dissolved	ug/L	ND	20.0	6.8	05/17/24 14:08	
Magnesium, Dissolved	ug/L	ND	1000	33.6	05/17/24 14:08	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	05/17/24 14:08	
Potassium, Dissolved	ug/L	ND	1000	97.8	05/17/24 14:08	

LABORATORY CONTROL SAMPLE: 3614528

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	946	95	80-120	
Lithium, Dissolved	ug/L	1000	956	96	80-120	
Magnesium, Dissolved	ug/L	10000	9620	96	80-120	
Molybdenum, Dissolved	ug/L	1000	990	99	80-120	
Potassium, Dissolved	ug/L	10000	9700	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614529 3614530

Parameter	Units	50372560002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	ND	1000	1000	1130	1130	103	103	75-125	0	20	
Lithium, Dissolved	ug/L	24.7	1000	1000	1050	1030	103	101	75-125	2	20	
Magnesium, Dissolved	ug/L	55800	10000	10000	65800	66000	101	102	75-125	0	20	
Molybdenum, Dissolved	ug/L	18.5	1000	1000	1070	1070	105	105	75-125	0	20	
Potassium, Dissolved	ug/L	5410	10000	10000	16000	15800	106	104	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

QC Batch: 790254
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372872001, 50372872002, 50372872003, 50372872004

METHOD BLANK: 3615889 Matrix: Water
Associated Lab Samples: 50372872001, 50372872002, 50372872003, 50372872004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.044	05/20/24 12:08	
Arsenic	ug/L	ND	1.0	0.064	05/20/24 12:08	
Barium	ug/L	ND	1.0	0.067	05/20/24 12:08	
Beryllium	ug/L	ND	0.20	0.026	05/20/24 12:08	
Cobalt	ug/L	ND	1.0	0.024	05/20/24 12:08	
Manganese	ug/L	ND	1.0	0.043	05/20/24 12:08	
Selenium	ug/L	ND	1.0	0.23	05/20/24 12:08	
Thallium	ug/L	ND	1.0	0.042	05/20/24 12:08	

LABORATORY CONTROL SAMPLE: 3615890

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	41.5	104	80-120	
Arsenic	ug/L	40	38.6	97	80-120	
Barium	ug/L	40	38.0	95	80-120	
Beryllium	ug/L	40	38.4	96	80-120	
Cobalt	ug/L	40	40.9	102	80-120	
Manganese	ug/L	40	40.6	102	80-120	
Selenium	ug/L	40	40.1	100	80-120	
Thallium	ug/L	40	41.5	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3615891 3615892

Parameter	Units	50372909026 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	37.5	37.8	94	94	75-125	1	20	
Arsenic	ug/L	ND	40	40	39.4	40.1	95	97	75-125	2	20	
Barium	ug/L	18.2	40	40	55.9	55.6	94	94	75-125	1	20	
Beryllium	ug/L	ND	40	40	41.4	41.1	103	103	75-125	1	20	
Cobalt	ug/L	ND	40	40	39.4	39.3	87	87	75-125	0	20	
Manganese	ug/L	205	40	40	242	239	93	84	75-125	1	20	
Selenium	ug/L	ND	40	40	41.5	41.1	102	101	75-125	1	20	
Thallium	ug/L	ND	40	40	38.4	38.3	96	95	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

QC Batch: 789891
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372872001, 50372872002, 50372872003, 50372872004

METHOD BLANK: 3614043 Matrix: Water
Associated Lab Samples: 50372872001, 50372872002, 50372872003, 50372872004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.3	05/16/24 19:21	

LABORATORY CONTROL SAMPLE: 3614044

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	392	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614045 3614046

Parameter	Units	50372699001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	385	390	96	97	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

QC Batch: 789669
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372872001, 50372872002, 50372872003, 50372872004

METHOD BLANK: 3613225 Matrix: Water
Associated Lab Samples: 50372872001, 50372872002, 50372872003, 50372872004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/13/24 21:06	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	05/13/24 21:06	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	05/13/24 21:06	

LABORATORY CONTROL SAMPLE: 3613226

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.2	104	90-110	

SAMPLE DUPLICATE: 3613227

Parameter	Units	50372768003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	323	331	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	323	331	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3613228

Parameter	Units	50372872002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	391	397	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	391	397	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

QC Batch: 790010 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372872001, 50372872002, 50372872003, 50372872004

METHOD BLANK: 3614682 Matrix: Water
Associated Lab Samples: 50372872001, 50372872002, 50372872003, 50372872004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/15/24 12:15	

LABORATORY CONTROL SAMPLE: 3614683

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	275	92	80-120	

SAMPLE DUPLICATE: 3614684

Parameter	Units	50372871008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	414	415	0	10	

SAMPLE DUPLICATE: 3614685

Parameter	Units	50372949001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2640	2550	3	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

QC Batch: 791138
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372872001, 50372872002, 50372872003, 50372872004

SAMPLE DUPLICATE: 3620134

Parameter	Units	50373270001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.6	7.6	0	2	H3

SAMPLE DUPLICATE: 3620294

Parameter	Units	50373264001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.5	7.5	0	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

QC Batch: 789602 | Analysis Method: SM 4500-S2-D
QC Batch Method: SM 4500-S2-D | Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372872001, 50372872002, 50372872003, 50372872004

METHOD BLANK: 3612957 Matrix: Water
Associated Lab Samples: 50372872001, 50372872002, 50372872003, 50372872004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/13/24 14:13	

LABORATORY CONTROL SAMPLE: 3612958

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.53	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3612959 3612960

Parameter	Units	50372949001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.29	0.29	58	58	90-110	1	20	M3

MATRIX SPIKE SAMPLE: 3612961

Parameter	Units	50372867001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	5.5J	5	9.9	89	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

QC Batch: 789370
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372872001, 50372872004

METHOD BLANK: 3611761 Matrix: Water
Associated Lab Samples: 50372872001, 50372872004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/10/24 21:45	

LABORATORY CONTROL SAMPLE: 3611762

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.1	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3611763 3611764

Parameter	Units	50372764005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	0.16	1	1	1.2	1.2	105	106	90-110	0	20	

MATRIX SPIKE SAMPLE: 3611765

Parameter	Units	50372871006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	6.2	5	11.0	96	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

QC Batch: 789372
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372872002, 50372872003

METHOD BLANK: 3611766 Matrix: Water
Associated Lab Samples: 50372872002, 50372872003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/10/24 23:37	

LABORATORY CONTROL SAMPLE: 3611767

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.1	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3611768 3611769

Parameter	Units	50372871008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.1	1.1	106	105	90-110	0	20	

MATRIX SPIKE SAMPLE: 3611770

Parameter	Units	50372871007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	3.3	1	3.9	59	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

QC Batch: 791331 | Analysis Method: EPA 365.1
QC Batch Method: EPA 365.1 | Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372872001, 50372872002, 50372872003, 50372872004

METHOD BLANK: 3620973 Matrix: Water
Associated Lab Samples: 50372872001, 50372872002, 50372872003, 50372872004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	05/23/24 15:38	

LABORATORY CONTROL SAMPLE: 3620974

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3620975 3620976

Parameter	Units	50373072001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	0.30			1.9	1.8				5		

MATRIX SPIKE SAMPLE: 3620977

Parameter	Units	50373288001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	3.9		5.6			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

QC Batch: 791073 | Analysis Method: SM 5310C
QC Batch Method: SM 5310C | Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372872001, 50372872002, 50372872003, 50372872004

METHOD BLANK: 3619843 Matrix: Water
Associated Lab Samples: 50372872001, 50372872002, 50372872003, 50372872004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	05/21/24 12:27	

LABORATORY CONTROL SAMPLE: 3619844

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.5	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3619845 3619846

Parameter	Units	50372699001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.4	10	10	14.5	4.8	121	23	80-120	101	20	M3,R1

MATRIX SPIKE SAMPLE: 3619847

Parameter	Units	50372867001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	9.3	10	18.0	87	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

Sample: AP-10B **Lab ID: 50372872001** Collected: 05/10/24 08:54 Received: 05/10/24 14:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.0649 ± 0.610 (1.22) C:NA T:83%**	pCi/L	05/23/24 14:02	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.780 ± 0.376 (0.629) C:80% T:85%**	pCi/L	05/20/24 12:34	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.780 ± 0.986 (1.85)**	pCi/L	05/28/24 15:55	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

Sample: MW-29B **Lab ID: 50372872002** Collected: 05/10/24 11:12 Received: 05/10/24 14:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.553 ± 0.578 (0.906) C:NA T:84%**	pCi/L	05/23/24 14:02	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.478 ± 0.335 (0.637) C:76% T:84%**	pCi/L	05/20/24 12:34	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.03 ± 0.913 (1.54)**	pCi/L	05/28/24 15:55	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

Sample: MW-29I **Lab ID: 50372872003** Collected: 05/10/24 12:30 Received: 05/10/24 14:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.473 ± 0.638 (1.07) C:NA T:86%**	pCi/L	05/23/24 14:02	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.299 ± 0.317 (0.656) C:80% T:84%**	pCi/L	05/20/24 12:34	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.772 ± 0.955 (1.73)**	pCi/L	05/28/24 15:55	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

Sample: MW-29A **Lab ID: 50372872004** Collected: 05/10/24 10:30 Received: 05/10/24 14:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.0586 ± 0.717 (1.38) C:NA T:88%**	pCi/L	05/23/24 14:02	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.226 ± 0.329 (0.708) C:80% T:86%**	pCi/L	05/20/24 12:34	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.226 ± 1.05 (2.09)**	pCi/L	05/28/24 15:55	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

QC Batch: 668629
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372872001, 50372872002, 50372872003, 50372872004

METHOD BLANK: 3255859 Matrix: Water
Associated Lab Samples: 50372872001, 50372872002, 50372872003, 50372872004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.267 ± 0.335 (0.711) C:86% T:82%	pCi/L	05/20/24 12:32	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

QC Batch: 668627
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372872001, 50372872002, 50372872003, 50372872004

METHOD BLANK: 3255857 Matrix: Water
Associated Lab Samples: 50372872001, 50372872002, 50372872003, 50372872004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.212 ± 0.256 (0.390) C:NA T:87%	pCi/L	05/23/24 14:02	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
R1	RPD value was outside control limits.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50372872001	**AP-10B**	EPA 9056	791424		
50372872002	**MW-29B**	EPA 9056	791424		
50372872003	**MW-29I**	EPA 9056	791424		
50372872004	**MW-29A**	EPA 9056	791424		
50372872001	**AP-10B**	EPA 3010	789977	EPA 6010	791132
50372872002	**MW-29B**	EPA 3010	789977	EPA 6010	791132
50372872003	**MW-29I**	EPA 3010	789977	EPA 6010	791132
50372872004	**MW-29A**	EPA 3010	789977	EPA 6010	791132
50372872001	**AP-10B**	EPA 3010	789966	EPA 6010	790595
50372872002	**MW-29B**	EPA 3010	789966	EPA 6010	790595
50372872003	**MW-29I**	EPA 3010	789966	EPA 6010	790595
50372872004	**MW-29A**	EPA 3010	789966	EPA 6010	790595
50372872001	**AP-10B**	EPA 200.2	790254	EPA 6020	790497
50372872002	**MW-29B**	EPA 200.2	790254	EPA 6020	790497
50372872003	**MW-29I**	EPA 200.2	790254	EPA 6020	790497
50372872004	**MW-29A**	EPA 200.2	790254	EPA 6020	790497
50372872001	**AP-10B**	EPA 200.2	789891	EPA 6020	790092
50372872002	**MW-29B**	EPA 200.2	789891	EPA 6020	790092
50372872003	**MW-29I**	EPA 200.2	789891	EPA 6020	790092
50372872004	**MW-29A**	EPA 200.2	789891	EPA 6020	790092
50372872001	**AP-10B**	EPA 7470	790807	EPA 7470	791743
50372872002	**MW-29B**	EPA 7470	790807	EPA 7470	791743
50372872003	**MW-29I**	EPA 7470	790807	EPA 7470	791743
50372872004	**MW-29A**	EPA 7470	790807	EPA 7470	791743
50372872001	**AP-10B**	EPA 903.1	668627		
50372872002	**MW-29B**	EPA 903.1	668627		
50372872003	**MW-29I**	EPA 903.1	668627		
50372872004	**MW-29A**	EPA 903.1	668627		
50372872001	**AP-10B**	EPA 904.0	668629		
50372872002	**MW-29B**	EPA 904.0	668629		
50372872003	**MW-29I**	EPA 904.0	668629		
50372872004	**MW-29A**	EPA 904.0	668629		
50372872001	**AP-10B**	Total Radium Calculation	671763		
50372872002	**MW-29B**	Total Radium Calculation	671763		
50372872003	**MW-29I**	Total Radium Calculation	671763		
50372872004	**MW-29A**	Total Radium Calculation	671763		
50372872001	**AP-10B**	SM 2320B	789669		
50372872002	**MW-29B**	SM 2320B	789669		
50372872003	**MW-29I**	SM 2320B	789669		
50372872004	**MW-29A**	SM 2320B	789669		
50372872001	**AP-10B**	SM 2540C	790010		
50372872002	**MW-29B**	SM 2540C	790010		
50372872003	**MW-29I**	SM 2540C	790010		
50372872004	**MW-29A**	SM 2540C	790010		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R3
Pace Project No.: 50372872

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50372872001	**AP-10B**	SM 4500-H+B	791138		
50372872002	**MW-29B**	SM 4500-H+B	791138		
50372872003	**MW-29I**	SM 4500-H+B	791138		
50372872004	**MW-29A**	SM 4500-H+B	791138		
50372872001	**AP-10B**	SM 4500-S2-D	789602		
50372872002	**MW-29B**	SM 4500-S2-D	789602		
50372872003	**MW-29I**	SM 4500-S2-D	789602		
50372872004	**MW-29A**	SM 4500-S2-D	789602		
50372872001	**AP-10B**	EPA 353.2	789370		
50372872002	**MW-29B**	EPA 353.2	789372		
50372872003	**MW-29I**	EPA 353.2	789372		
50372872004	**MW-29A**	EPA 353.2	789370		
50372872001	**AP-10B**	EPA 365.1	791331	EPA 365.1	791783
50372872002	**MW-29B**	EPA 365.1	791331	EPA 365.1	791783
50372872003	**MW-29I**	EPA 365.1	791331	EPA 365.1	791783
50372872004	**MW-29A**	EPA 365.1	791331	EPA 365.1	791783
50372872001	**AP-10B**	SM 5310C	791073		
50372872002	**MW-29B**	SM 5310C	791073		
50372872003	**MW-29I**	SM 5310C	791073		
50372872004	**MW-29A**	SM 5310C	791073		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request D

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields mu

WO# : 50372872

50372872

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedar
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P4 May 2024	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:	P4R3	Pace Profile #:	10498/60

State / Location: IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO3 Wet	(Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity,pH	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum	Residual Chlorine (Y/N)
	MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																	Requested Analysis Filtered (Y/N)				Y			Y				
1	AP-10A	WT	G	5/10/24	0854				10	3	2	4		1														
2	MW-29B				1112																							
3	MW-29I				1230																							
4	MW-29A				1030																							
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Metals: 6010 (B, Cd, Cr, Fe, Pb, Mo, Ca, Mg, Na, K, Li) (11)	Mohammed Bazlamit	5/10/24	1400		5-10-24	14:00	1.0	y	n	y
20 (Be, Mn, Co, As, Se, Sb, Ba, Tl) (8), 7470 (Hg)							0.9			
Dissolved FF 6010 (B, Mo, Mg, K, Li) (5) FF 6020 (Al) (1)										
ad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Mohammed Bazlamit					
SIGNATURE of SAMPLER:		DATE Signed: 5/10/24				

F-IN-Q-290-rev.26, 30Apr2024

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: RC 5-10-24 18:03

1. **Courier:** ☐FED EX | UPS ☑CLIENT ☐PACE ☐NOW/JETT | OTHER _____
2. **Custody Seal on Cooler/Box Present:** | | Yes ☑ No
   (If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H
4. **Cooler Temperature(s):** (Initial/Corrected) 1.0/1.0 | 0.9/0.9 | | | RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)
5. **Packing Material:** | |Bubble Wrap ☑ Bubble Bags | | None | | Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **Was the PM notified of out of temp cooler?:** | |Yes ☐No
   Cooler temp should be above freezing to 6°C
8. **EZ Bottle Order?** | Yes ☑No
   If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis: NO3	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:	✓	Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A ✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID		✓	Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS: AP-10A samples A marked out and replaced with a B instead RC 5-10-24

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1													1			2	1	2	1	1	1		1				WT	✓	✓		✓
2																															
3																															
4													1			1	1	1	1	1	1		1				WT				
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

July 24, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 P2R4
Pace Project No.: 50372947

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 13, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372947

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372947

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50372947001	**AP-6B**	Water	05/12/24 10:05	05/13/24 09:45
50372947002	**Field Blank 3**	Water	05/12/24 08:00	05/13/24 09:45

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372947

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50372947001	**AP-6B**	EPA 9056	KBB	3	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	JPK	3	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	MTM	1	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	1	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50372947002	**Field Blank 3**	EPA 9056	KBB	3	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	1	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372947

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372947001	**AP-6B**					
EPA 9056	Chloride	5.2	mg/L	0.25	05/23/24 18:28	
EPA 9056	Fluoride	0.13	mg/L	0.10	05/23/24 18:28	
EPA 9056	Sulfate	258	mg/L	2.5	05/23/24 18:44	
EPA 6010	Boron	817	ug/L	100	05/21/24 14:03	
EPA 6010	Calcium	158000	ug/L	1000	05/21/24 14:03	
EPA 6010	Magnesium	30600	ug/L	1000	05/21/24 14:03	
EPA 6010	Sodium	6580	ug/L	1000	05/21/24 14:03	
EPA 6010	Boron, Dissolved	831	ug/L	100	05/21/24 03:01	
EPA 6020	Barium	23.4	ug/L	1.0	05/18/24 08:35	
EPA 6020	Selenium	5.0	ug/L	1.0	05/21/24 22:49	
EPA 903.1	Radium-226	0.197 ± 0.693 (1.28) C:NA T:85%	pCi/L		06/05/24 14:58	
EPA 904.0	Radium-228	0.382 ± 0.340 (0.686) C:81% T:87%	pCi/L		05/31/24 15:48	
Total Radium Calculation	Total Radium	0.579 ± 1.03 (1.97)	pCi/L		06/05/24 17:05	
SM 2320B	Alkalinity, Total as CaCO3	247	mg/L	10.0	05/15/24 20:31	
SM 2540C	Total Dissolved Solids	631	mg/L	10.0	05/15/24 12:20	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	05/21/24 17:37	H3
EPA 353.2	Nitrogen, Nitrate	0.81	mg/L	0.10	05/14/24 01:36	
SM 5310C	Dissolved Organic Carbon	2.2	mg/L	1.0	05/24/24 18:16	
50372947002	**Field Blank 3**					
EPA 903.1	Radium-226	-0.177 ± 0.477 (1.03) C:NA T:90%	pCi/L		06/05/24 14:58	
EPA 904.0	Radium-228	0.193 ± 0.380 (0.837) C:74% T:80%	pCi/L		05/31/24 15:49	
Total Radium Calculation	Total Radium	0.193 ± 0.857 (1.87)	pCi/L		06/05/24 17:05	
SM 4500-H+B	pH at 25 Degrees C	8.6	Std. Units	0.10	05/21/24 17:38	H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372947

Sample: AP-6B **Lab ID: 50372947001** Collected: 05/12/24 10:05 Received: 05/13/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**5.2**	mg/L	0.25	0.067	1		05/23/24 18:28	16887-00-6	
Fluoride	**0.13**	mg/L	0.10	0.017	1		05/23/24 18:28	16984-48-8	
Sulfate	**258**	mg/L	2.5	1.9	10		05/23/24 18:44	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**817**	ug/L	100	6.2	1	05/20/24 16:18	05/21/24 14:03	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/20/24 16:18	05/21/24 14:03	7440-43-9	
Calcium	**158000**	ug/L	1000	67.7	1	05/20/24 16:18	05/21/24 14:03	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/20/24 16:18	05/21/24 14:03	7440-47-3	
Iron	ND	ug/L	100	30.0	1	05/20/24 16:18	05/21/24 14:03	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/20/24 16:18	05/21/24 14:03	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/20/24 16:18	05/21/24 14:03	7439-93-2	
Magnesium	**30600**	ug/L	1000	33.6	1	05/20/24 16:18	05/21/24 14:03	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	05/20/24 16:18	05/21/24 14:03	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	05/20/24 16:18	05/21/24 14:03	7440-09-7	
Sodium	**6580**	ug/L	1000	54.8	1	05/20/24 16:18	05/21/24 14:03	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**831**	ug/L	100	6.2	1	05/20/24 16:11	05/21/24 03:01	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	05/20/24 16:11	05/21/24 03:01	7439-93-2	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	05/20/24 16:11	05/21/24 03:01	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	05/17/24 09:45	05/18/24 08:35	7440-36-0	
Arsenic	ND	ug/L	1.0	0.10	1	05/17/24 09:45	05/21/24 22:49	7440-38-2	
Barium	**23.4**	ug/L	1.0	0.062	1	05/17/24 09:45	05/18/24 08:35	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	05/17/24 09:45	05/18/24 08:35	7440-41-7	
Cobalt	ND	ug/L	1.0	0.060	1	05/17/24 09:45	05/18/24 08:35	7440-48-4	
Manganese	ND	ug/L	1.0	0.15	1	05/17/24 09:45	05/18/24 08:35	7439-96-5	
Selenium	**5.0**	ug/L	1.0	0.36	1	05/17/24 09:45	05/21/24 22:49	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	05/17/24 09:45	05/18/24 08:35	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	05/17/24 09:45	05/18/24 02:57	7429-90-5	1d
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	05/22/24 18:05	05/23/24 10:25	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372947

Sample: AP-6B **Lab ID: 50372947001** Collected: 05/12/24 10:05 Received: 05/13/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**247**	mg/L	10.0	10.0	1		05/15/24 20:31		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**631**	mg/L	10.0	10.0	1		05/15/24 12:20		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		05/21/24 17:37		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/13/24 14:13	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**0.81**	mg/L	0.10	0.013	1		05/14/24 01:36	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	05/24/24 11:30	05/28/24 12:21		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.2**	mg/L	1.0	0.25	1		05/24/24 18:16		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372947

Sample: Field Blank 3 **Lab ID: 50372947002** Collected: 05/12/24 08:00 Received: 05/13/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	ND	mg/L	0.25	0.067	1		05/23/24 19:17	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/23/24 19:17	16984-48-8	
Sulfate	ND	mg/L	0.25	0.19	1		05/23/24 19:17	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	ND	ug/L	100	6.2	1	05/20/24 16:18	05/21/24 14:05	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/20/24 16:18	05/21/24 14:05	7440-43-9	
Calcium	ND	ug/L	1000	67.7	1	05/20/24 16:18	05/21/24 14:05	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/20/24 16:18	05/21/24 14:05	7440-47-3	
Iron	ND	ug/L	100	30.0	1	05/20/24 16:18	05/21/24 14:05	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/20/24 16:18	05/21/24 14:05	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/20/24 16:18	05/21/24 14:05	7439-93-2	
Magnesium	ND	ug/L	1000	33.6	1	05/20/24 16:18	05/21/24 14:05	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	05/20/24 16:18	05/21/24 14:05	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	05/20/24 16:18	05/21/24 14:05	7440-09-7	
Sodium	ND	ug/L	1000	54.8	1	05/20/24 16:18	05/21/24 14:05	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	05/17/24 09:45	05/18/24 08:39	7440-36-0	
Arsenic	ND	ug/L	1.0	0.10	1	05/17/24 09:45	05/21/24 22:54	7440-38-2	
Barium	ND	ug/L	1.0	0.062	1	05/17/24 09:45	05/18/24 08:39	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	05/17/24 09:45	05/18/24 08:39	7440-41-7	
Cobalt	ND	ug/L	1.0	0.060	1	05/17/24 09:45	05/18/24 08:39	7440-48-4	
Manganese	ND	ug/L	1.0	0.15	1	05/17/24 09:45	05/18/24 08:39	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	05/17/24 09:45	05/21/24 22:54	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	05/17/24 09:45	05/18/24 08:39	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	05/22/24 18:05	05/23/24 10:27	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	ND	mg/L	10.0	10.0	1		05/15/24 22:47		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		05/15/24 12:20		PL
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**8.6**	Std. Units	0.10	0.10	1		05/21/24 17:38		H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372947

Sample: Field Blank 3 **Lab ID: 50372947002** Collected: 05/12/24 08:00 Received: 05/13/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/13/24 14:13	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/14/24 01:30	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	05/24/24 11:30	05/28/24 12:21		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372947

QC Batch: 791634
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372947001, 50372947002

METHOD BLANK: 3622402 Matrix: Water
Associated Lab Samples: 50372947001, 50372947002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/23/24 17:54	
Fluoride	mg/L	ND	0.10	0.017	05/23/24 17:54	
Sulfate	mg/L	ND	0.25	0.19	05/23/24 17:54	

LABORATORY CONTROL SAMPLE: 3622403

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	94	80-120	
Fluoride	mg/L	1	0.96	96	80-120	
Sulfate	mg/L	5	4.7	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3622404 3622405

Parameter	Units	50372949001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	44.3	25	25	69.0	69.3	99	100	80-120	0	15	
Fluoride	mg/L	0.23	1	1	1.2	1.2	101	94	80-120	6	15	
Sulfate	mg/L	1340	500	500	1900	1740	114	81	80-120	9	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372947

QC Batch: 791142
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372947001, 50372947002

METHOD BLANK: 3620139 Matrix: Water
Associated Lab Samples: 50372947001, 50372947002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	05/23/24 09:29	

LABORATORY CONTROL SAMPLE: 3620140

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.1	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3620141 3620142

Parameter	Units	50372871008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.6	4.8	92	95	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372947

QC Batch: 789981
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372947001, 50372947002

METHOD BLANK: 3614587 Matrix: Water
Associated Lab Samples: 50372947001, 50372947002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	05/21/24 13:30	
Cadmium	ug/L	ND	2.0	0.60	05/21/24 13:30	
Calcium	ug/L	ND	1000	67.7	05/21/24 13:30	
Chromium	ug/L	ND	10.0	0.42	05/21/24 13:30	
Iron	ug/L	ND	100	30.0	05/21/24 13:30	
Lead	ug/L	ND	10.0	2.5	05/21/24 13:30	
Lithium	ug/L	ND	20.0	6.8	05/21/24 13:30	
Magnesium	ug/L	ND	1000	33.6	05/21/24 13:30	
Molybdenum	ug/L	ND	10.0	0.78	05/21/24 13:30	
Potassium	ug/L	ND	1000	97.8	05/21/24 13:30	
Sodium	ug/L	ND	1000	54.8	05/21/24 13:30	

LABORATORY CONTROL SAMPLE: 3614588

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	935	93	80-120	
Cadmium	ug/L	1000	921	92	80-120	
Calcium	ug/L	10000	9710	97	80-120	
Chromium	ug/L	1000	953	95	80-120	
Iron	ug/L	10000	9340	93	80-120	
Lead	ug/L	1000	913	91	80-120	
Lithium	ug/L	1000	932	93	80-120	
Magnesium	ug/L	10000	9200	92	80-120	
Molybdenum	ug/L	1000	972	97	80-120	
Potassium	ug/L	10000	9440	94	80-120	
Sodium	ug/L	10000	9130	91	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614589 3614590

Parameter	Units	50372871008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	149	1000	1000	1130	1160	98	101	75-125	3	20	
Cadmium	ug/L	ND	1000	1000	966	990	97	99	75-125	2	20	
Calcium	ug/L	101000	10000	10000	112000	113000	111	123	75-125	1	20	
Chromium	ug/L	ND	1000	1000	981	1010	98	101	75-125	3	20	
Iron	ug/L	1420	10000	10000	11000	11300	95	99	75-125	3	20	
Lead	ug/L	ND	1000	1000	928	951	93	95	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372947

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614589 3614590

Parameter	Units	50372871008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	ND	1000	1000	1010	1000	101	100	75-125	1	20	
Magnesium	ug/L	29900	10000	10000	39500	40200	96	103	75-125	2	20	
Molybdenum	ug/L	ND	1000	1000	1020	1050	102	105	75-125	3	20	
Potassium	ug/L	2030	10000	10000	12400	12100	104	101	75-125	2	20	
Sodium	ug/L	19200	10000	10000	30100	29300	109	101	75-125	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614591 3614592

Parameter	Units	50372949001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	3970	1000	1000	4760	4760	79	79	75-125	0	20	
Cadmium	ug/L	ND	1000	1000	981	953	98	95	75-125	3	20	
Calcium	ug/L	622000	10000	10000	594000	600000	-281	-222	75-125	1	20	P6
Chromium	ug/L	ND	1000	1000	974	948	97	95	75-125	3	20	
Iron	ug/L	ND	10000	10000	9420	9160	94	91	75-125	3	20	
Lead	ug/L	ND	1000	1000	903	877	90	88	75-125	3	20	
Lithium	ug/L	350	1000	1000	1320	1290	97	94	75-125	2	20	
Magnesium	ug/L	51600	10000	10000	58000	57600	64	61	75-125	1	20	P6
Molybdenum	ug/L	ND	1000	1000	1030	998	102	99	75-125	3	20	
Potassium	ug/L	64900	10000	10000	72400	71400	75	65	75-125	1	20	P6
Sodium	ug/L	84100	10000	10000	89700	89100	56	50	75-125	1	20	P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372947

QC Batch: 789968
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372947001

METHOD BLANK: 3614535 Matrix: Water
Associated Lab Samples: 50372947001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	05/21/24 02:33	
Lithium, Dissolved	ug/L	ND	20.0	6.8	05/21/24 02:33	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	05/21/24 02:33	

LABORATORY CONTROL SAMPLE: 3614536

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	966	97	80-120	
Lithium, Dissolved	ug/L	1000	999	100	80-120	
Molybdenum, Dissolved	ug/L	1000	1030	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614537 3614538

Parameter	Units	50372871008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	151	1000	1000	1120	1130	97	98	75-125	1	20	
Lithium, Dissolved	ug/L	ND	1000	1000	1010	987	100	98	75-125	2	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1020	1020	102	102	75-125	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614539 3614540

Parameter	Units	50372949001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	4100	1000	1000	5040	5180	94	108	75-125	3	20	
Lithium, Dissolved	ug/L	382	1000	1000	1410	1440	103	106	75-125	2	20	
Molybdenum, Dissolved	ug/L	10.1	1000	1000	1060	1090	105	108	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372947

QC Batch: 790472
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372947001, 50372947002

METHOD BLANK: 3617134 Matrix: Water
Associated Lab Samples: 50372947001, 50372947002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.26	05/18/24 07:15	
Arsenic	ug/L	ND	1.0	0.10	05/18/24 07:15	
Barium	ug/L	ND	1.0	0.062	05/18/24 07:15	
Beryllium	ug/L	ND	0.20	0.020	05/18/24 07:15	
Cobalt	ug/L	ND	1.0	0.060	05/18/24 07:15	
Manganese	ug/L	ND	1.0	0.15	05/18/24 07:15	
Selenium	ug/L	ND	1.0	0.36	05/18/24 07:15	
Thallium	ug/L	ND	1.0	0.079	05/18/24 07:15	

LABORATORY CONTROL SAMPLE: 3617135

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	43.2	108	80-120	
Arsenic	ug/L	40	38.6	96	80-120	
Barium	ug/L	40	39.2	98	80-120	
Beryllium	ug/L	40	39.0	98	80-120	
Cobalt	ug/L	40	40.9	102	80-120	
Manganese	ug/L	40	41.1	103	80-120	
Selenium	ug/L	40	40.5	101	80-120	
Thallium	ug/L	40	39.8	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3617136 3617137

Parameter	Units	50372949001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	44.5	45.2	111	113	75-125	2	20	
Arsenic	ug/L	ND	40	40	40.5	40.5	101	101	75-125	0	20	
Barium	ug/L	27.4	40	40	64.9	65.6	94	95	75-125	1	20	
Beryllium	ug/L	ND	40	40	39.1	40.1	98	100	75-125	2	20	
Cobalt	ug/L	1.1	40	40	38.4	38.5	93	94	75-125	0	20	
Manganese	ug/L	2670	40	40	2620	2720	-140	124	75-125	4	20	P6
Selenium	ug/L	ND	40	40	42.5	42.8	106	107	75-125	1	20	
Thallium	ug/L	ND	40	40	39.8	39.9	99	100	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372947

QC Batch: 790471
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372947001

METHOD BLANK: 3617128 Matrix: Water
Associated Lab Samples: 50372947001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.6	05/18/24 00:37	1d

LABORATORY CONTROL SAMPLE: 3617129

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	399	100	80-120	IC

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3617130 3617131

Parameter	Units	50372949001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	388	403	97	100	75-125	4	20	IC

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372947

QC Batch: 790207
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372947001

METHOD BLANK: 3615514 Matrix: Water
Associated Lab Samples: 50372947001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/15/24 20:31	

LABORATORY CONTROL SAMPLE: 3615515

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.9	102	90-110	

SAMPLE DUPLICATE: 3615516

Parameter	Units	50372932002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	281	282	0	20	

SAMPLE DUPLICATE: 3615517

Parameter	Units	50372835001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	421	427	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372947

QC Batch: 790211
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372947002

METHOD BLANK: 3615532 Matrix: Water
Associated Lab Samples: 50372947002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/15/24 22:47	

LABORATORY CONTROL SAMPLE: 3615533

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.3	101	90-110	

SAMPLE DUPLICATE: 3615534

Parameter	Units	50372995014 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	1110	1120	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372947

QC Batch: 790010
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372947001, 50372947002

METHOD BLANK: 3614682 Matrix: Water
Associated Lab Samples: 50372947001, 50372947002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/15/24 12:15	

LABORATORY CONTROL SAMPLE: 3614683

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	275	92	80-120	

SAMPLE DUPLICATE: 3614684

Parameter	Units	50372871008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	414	415	0	10	

SAMPLE DUPLICATE: 3614685

Parameter	Units	50372949001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2640	2550	3	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372947

QC Batch: 791157
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372947001, 50372947002

SAMPLE DUPLICATE: 3620207

Parameter	Units	50372871008 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.2	7.2	0	2	H3

SAMPLE DUPLICATE: 3620208

Parameter	Units	50372949001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.8	6.9	2	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372947

QC Batch: 789602
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372947001, 50372947002

METHOD BLANK: 3612957 Matrix: Water
Associated Lab Samples: 50372947001, 50372947002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/13/24 14:13	

LABORATORY CONTROL SAMPLE: 3612958

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.53	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3612959 3612960

Parameter	Units	50372949001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.29	0.29	58	58	90-110	1	20	M3

MATRIX SPIKE SAMPLE: 3612961

Parameter	Units	50372867001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	5.5J	5	9.9	89	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372947

QC Batch: 789705
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372947001, 50372947002

METHOD BLANK: 3613402 Matrix: Water
Associated Lab Samples: 50372947001, 50372947002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/14/24 01:25	

LABORATORY CONTROL SAMPLE: 3613403

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3613404 3613405

Parameter	Units	50372949001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	0.99	0.99	99	99	90-110	0	20	

MATRIX SPIKE SAMPLE: 3613406

Parameter	Units	50372949003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.0	100	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372947

QC Batch: 791867
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372947001, 50372947002

METHOD BLANK: 3623739 Matrix: Water
Associated Lab Samples: 50372947001, 50372947002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	05/28/24 12:09	

LABORATORY CONTROL SAMPLE: 3623740

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3623741 3623742

Parameter	Units	50372949001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.6	1.6				4		

MATRIX SPIKE SAMPLE: 3623743

Parameter	Units	50372949003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	0.45		2.0			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372947

QC Batch: 791657
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372947001

METHOD BLANK: 3622553 Matrix: Water
Associated Lab Samples: 50372947001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	05/23/24 20:33	

LABORATORY CONTROL SAMPLE: 3622554

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.2	92	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3622555 3622556

Parameter	Units	50372871008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	10	10	10.5	10.1	97	93	80-120	4	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3622557 3622558

Parameter	Units	50372949001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.3	10	10	11.6	11.4	93	91	80-120	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372947

Sample: AP-6B **Lab ID: 50372947001** Collected: 05/12/24 10:05 Received: 05/13/24 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.197 ± 0.693 (1.28) C:NA T:85%**	pCi/L	06/05/24 14:58	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.382 ± 0.340 (0.686) C:81% T:87%**	pCi/L	05/31/24 15:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.579 ± 1.03 (1.97)**	pCi/L	06/05/24 17:05	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372947

Sample: Field Blank 3 **Lab ID: 50372947002** Collected: 05/12/24 08:00 Received: 05/13/24 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.177 ± 0.477 (1.03) C:NA T:90%**	pCi/L	06/05/24 14:58	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.193 ± 0.380 (0.837) C:74% T:80%**	pCi/L	05/31/24 15:49	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.193 ± 0.857 (1.87)**	pCi/L	06/05/24 17:05	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372947

QC Batch: 669130
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372947001, 50372947002

METHOD BLANK: 3258482 Matrix: Water
Associated Lab Samples: 50372947001, 50372947002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0506 ± 0.231 (0.470) C:NA T:82%	pCi/L	06/05/24 14:46	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372947

QC Batch: 669131
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372947001, 50372947002

METHOD BLANK: 3258483 Matrix: Water
Associated Lab Samples: 50372947001, 50372947002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.245 ± 0.355 (0.873) C:81% T:80%	pCi/L	05/31/24 15:47	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372947

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

1d	The initial calibration for this compound was outside of method control limits. Result unaffected by high bias. MTM 5/18/24
H3	Sample was received or analysis requested beyond the recognized method holding time.
IC	The initial calibration for this compound was outside of method control limits. The result is estimated.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
PL	The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P2R4
Pace Project No.: 50372947

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50372947001	**AP-6B**	EPA 9056	791634		
50372947002	**Field Blank 3**	EPA 9056	791634		
50372947001	**AP-6B**	EPA 3010	789981	EPA 6010	791166
50372947002	**Field Blank 3**	EPA 3010	789981	EPA 6010	791166
50372947001	**AP-6B**	EPA 3010	789968	EPA 6010	791028
50372947001	**AP-6B**	EPA 200.2	790472	EPA 6020	790701
50372947002	**Field Blank 3**	EPA 200.2	790472	EPA 6020	790701
50372947001	**AP-6B**	EPA 200.2	790471	EPA 6020	790700
50372947001	**AP-6B**	EPA 7470	791142	EPA 7470	791577
50372947002	**Field Blank 3**	EPA 7470	791142	EPA 7470	791577
50372947001	**AP-6B**	EPA 903.1	669130		
50372947002	**Field Blank 3**	EPA 903.1	669130		
50372947001	**AP-6B**	EPA 904.0	669131		
50372947002	**Field Blank 3**	EPA 904.0	669131		
50372947001	**AP-6B**	Total Radium Calculation	673549		
50372947002	**Field Blank 3**	Total Radium Calculation	673549		
50372947001	**AP-6B**	SM 2320B	790207		
50372947002	**Field Blank 3**	SM 2320B	790211		
50372947001	**AP-6B**	SM 2540C	790010		
50372947002	**Field Blank 3**	SM 2540C	790010		
50372947001	**AP-6B**	SM 4500-H+B	791157		
50372947002	**Field Blank 3**	SM 4500-H+B	791157		
50372947001	**AP-6B**	SM 4500-S2-D	789602		
50372947002	**Field Blank 3**	SM 4500-S2-D	789602		
50372947001	**AP-6B**	EPA 353.2	789705		
50372947002	**Field Blank 3**	EPA 353.2	789705		
50372947001	**AP-6B**	EPA 365.1	791867	EPA 365.1	792297
50372947002	**Field Blank 3**	EPA 365.1	791867	EPA 365.1	792297
50372947001	**AP-6B**	SM 5310C	791657		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO# : 50372947

50372947

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A
Required Client Informatio

Company: Atlas Indianapolis	Report To: Mark Breting	Attention: Accounts Payable - Paula Sedam	
Address: 7988 Centerpoint Drive Suite 100	Copy To:	Company Name: Atlas Indianapolis	
Indianapolis, IN 46256		Address:	Regulatory Agency
Email: mark.breting@oneatlas.com	Purchase Order #:	Pace Quote:	
Phone: (317)579-4082 Fax:	Project Name: Petersburg May 2024 P2R4	Pace Project Manager: Will Statz	State / Location
Requested Due Date:	Project #:	Pace Profile #: 10498/59	IN

Section C
Invoice Information:

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total Metals 6010/6020/7470	Diss. Metals 6010/6020	DOC by 5310	Alkalinity/pH	Cl, F, SO4 by 9056	TDS by 2540C	Nitrate by 353.2	Phosphate by 365.1	Sulfide by 4500	Rad 226/228 + Sum to PA			Residual Chlorine (Y/N)	
1	AP-6B			5/12/24	1005				10	X	X	X		X					X	X	X	X	X	X	X	X	X				001
2	Field Blank-3			5/12/24					8	X	X	X		X					X	X	X	X	X	X	X	X	X				002
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Metals* 6010: B, Cd, Cr, Fe, Pb, Mo, Ca, Mg, Na, K, Li (11)	J O'B	5/13/24	7:00	Jay Williams	5/13/24	700
6020: Be, Mn, Co, As, Se, Sb, Ba, Tl (8). 7470: Hg (1)	Jay Williams	5/13/24	9:45	Lawrence	5/13/24	0945
Diss 6010: B, Mo, Li (3). Diss 6020: Al, Mn (2)						

SAMPLE CONDITIONS			
4.3/4.3			
1.8	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Josh O'Brien

SIGNATURE of SAMPLER: J O'B

DATE Signed: 5-12-24

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

F-IN-Q-290-rev.26, 30Apr2024

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 5/13/24 1120 IL

1. **Courier:** ☐FED EX | UPS ☑CLIENT ☐PACE ☐NOW/JETT | OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H
4. **Cooler Temperature(s):** 2.0/1.8 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)
5. **Packing Material:** ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **Was the PM notified of out of temp cooler?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C
8. **EZ Bottle Order?** ☐ Yes ☑ No
   If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** Circle: **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? **Analysis:** Nitrate 3532	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 1140			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS: No time on Field Blank 3 containers (matches COC). IL 5/13

COC PAGE 1 **of** 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC									OTHER							
			MeOH (only)																												
			SBS																												
			DI																												
COC Line Item	WGFU	WGKU BG1U	R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	BG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																2	1	2	1	1	1		1						✓	✓		✓
2																↓	↓	↓	↓		↓		↓					↓	✓	✓		✓
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

July 24, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 13, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis
7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50372949001	**MW-4C**	Water	05/12/24 12:40	05/13/24 09:45
50372949002	**Field Blank**	Water	05/12/24 08:00	05/13/24 09:45
50372949003	**MW-3**	Water	05/12/24 14:15	05/13/24 09:45
50372949004	**DUP-1**	Water	05/12/24 08:00	05/13/24 09:45
50372949005	**MW-4C MS**	Water	05/12/24 12:40	05/13/24 09:45
50372949006	**MW-4C MSD**	Water	05/12/24 12:40	05/13/24 09:45

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50372949001	**MW-4C**	EPA 9056	KBB	3	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	JPK	3	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	MTM	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	1	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50372949002	**Field Blank**	EPA 9056	KBB	3	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	1	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
50372949003	**MW-3**	EPA 9056	KBB	3	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	JPK	3	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	MTM	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	1	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50372949004	**DUP-1**	EPA 9056	KBB	3	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	JPK	3	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	MTM	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	1	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50372949005	**MW-4C MS**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
50372949006	**MW-4C MSD**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372949001	**MW-4C**					
EPA 9056	Chloride	44.3	mg/L	2.5	05/23/24 19:50	
EPA 9056	Fluoride	0.23	mg/L	0.10	05/23/24 19:34	
EPA 9056	Sulfate	1340	mg/L	25.0	05/23/24 20:07	
EPA 6010	Boron	3970	ug/L	100	05/21/24 14:07	
EPA 6010	Calcium	622000	ug/L	5000	05/21/24 17:41	
EPA 6010	Lithium	350	ug/L	20.0	05/21/24 14:07	
EPA 6010	Magnesium	51600	ug/L	1000	05/21/24 14:07	
EPA 6010	Potassium	64900	ug/L	1000	05/21/24 14:07	
EPA 6010	Sodium	84100	ug/L	1000	05/21/24 14:07	
EPA 6010	Boron, Dissolved	4100	ug/L	100	05/21/24 03:03	
EPA 6010	Lithium, Dissolved	382	ug/L	20.0	05/21/24 03:03	
EPA 6010	Molybdenum, Dissolved	10.1	ug/L	10.0	05/21/24 03:03	
EPA 6020	Barium	27.4	ug/L	1.0	05/21/24 23:06	
EPA 6020	Cobalt	1.1	ug/L	1.0	05/19/24 01:00	
EPA 6020	Manganese	2670	ug/L	20.0	05/18/24 08:51	
EPA 903.1	Radium-226	0.000 ± 0.424 (0.837) C:NA T:89%	pCi/L		06/05/24 14:46	
EPA 904.0	Radium-228	0.995 ± 0.459 (0.780) C:83% T:84%	pCi/L		05/31/24 15:48	
Total Radium Calculation	Total Radium	0.995 ± 0.883 (1.62)	pCi/L		06/05/24 17:05	
SM 2320B	Alkalinity, Total as CaCO3	429	mg/L	10.0	05/15/24 20:48	
SM 2540C	Total Dissolved Solids	2640	mg/L	40.0	05/15/24 12:20	
SM 4500-H+B	pH at 25 Degrees C	6.8	Std. Units	0.10	05/21/24 17:39	H3
SM 5310C	Dissolved Organic Carbon	2.3	mg/L	1.0	05/24/24 18:42	
50372949002	**Field Blank**					
EPA 903.1	Radium-226	-0.302 ± 0.758 (1.51) C:NA T:93%	pCi/L		06/05/24 14:46	
EPA 904.0	Radium-228	0.385 ± 0.374 (0.766) C:83% T:80%	pCi/L		05/31/24 15:48	
Total Radium Calculation	Total Radium	0.385 ± 1.13 (2.28)	pCi/L		06/05/24 17:05	
SM 4500-H+B	pH at 25 Degrees C	7.0	Std. Units	0.10	05/21/24 17:40	H3
50372949003	**MW-3**					
EPA 9056	Chloride	52.4	mg/L	2.5	05/23/24 23:17	
EPA 9056	Sulfate	1260	mg/L	25.0	05/23/24 23:35	
EPA 6010	Boron	863	ug/L	100	05/21/24 14:17	
EPA 6010	Calcium	430000	ug/L	5000	05/21/24 18:19	
EPA 6010	Lithium	1620	ug/L	20.0	05/21/24 14:17	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372949003	**MW-3**					
EPA 6010	Magnesium	9050	ug/L	1000	05/21/24 14:17	
EPA 6010	Molybdenum	426	ug/L	10.0	05/21/24 14:17	
EPA 6010	Potassium	221000	ug/L	5000	05/21/24 18:19	
EPA 6010	Sodium	90600	ug/L	1000	05/21/24 14:17	
EPA 6010	Boron, Dissolved	879	ug/L	100	05/21/24 03:08	
EPA 6010	Lithium, Dissolved	1680	ug/L	20.0	05/21/24 03:08	
EPA 6010	Molybdenum, Dissolved	433	ug/L	10.0	05/21/24 03:08	
EPA 6020	Antimony	2.1	ug/L	1.0	05/18/24 09:59	
EPA 6020	Arsenic	234	ug/L	2.0	05/19/24 00:32	
EPA 6020	Barium	70.5	ug/L	1.0	05/18/24 09:59	
EPA 6020	Cobalt	1.9	ug/L	1.0	05/18/24 09:59	
EPA 6020	Manganese	2260	ug/L	20.0	05/18/24 09:55	
EPA 903.1	Radium-226	0.642 ± 0.736 (1.21) C:NA T:87%	pCi/L		06/05/24 14:58	
EPA 904.0	Radium-228	0.288 ± 0.301 (0.617) C:80% T:87%	pCi/L		05/31/24 15:48	
Total Radium Calculation	Total Radium	0.930 ± 1.04 (1.83)	pCi/L		06/05/24 17:05	
SM 2320B	Alkalinity, Total as CaCO3	98.4	mg/L	10.0	05/15/24 20:48	
SM 2540C	Total Dissolved Solids	2080	mg/L	40.0	05/15/24 12:26	
SM 4500-H+B	pH at 25 Degrees C	8.5	Std. Units	0.10	05/21/24 17:41	H3
EPA 365.1	Phosphate as P04	0.45	mg/L	0.15	05/28/24 12:25	
SM 5310C	Dissolved Organic Carbon	1.3	mg/L	1.0	05/24/24 20:19	
50372949004	**DUP-1**					
EPA 9056	Chloride	54.5	mg/L	2.5	05/24/24 00:45	
EPA 9056	Sulfate	1230	mg/L	25.0	05/24/24 01:02	
EPA 6010	Boron	866	ug/L	100	05/21/24 14:19	
EPA 6010	Calcium	426000	ug/L	5000	05/21/24 18:21	
EPA 6010	Lithium	1650	ug/L	20.0	05/21/24 14:19	
EPA 6010	Magnesium	8900	ug/L	1000	05/21/24 14:19	
EPA 6010	Molybdenum	428	ug/L	10.0	05/21/24 14:19	
EPA 6010	Potassium	223000	ug/L	5000	05/21/24 18:21	
EPA 6010	Sodium	91900	ug/L	1000	05/21/24 14:19	
EPA 6010	Boron, Dissolved	882	ug/L	100	05/21/24 03:13	
EPA 6010	Lithium, Dissolved	1680	ug/L	20.0	05/21/24 03:13	
EPA 6010	Molybdenum, Dissolved	438	ug/L	10.0	05/21/24 03:13	
EPA 6020	Antimony	2.1	ug/L	1.0	05/19/24 00:44	
EPA 6020	Arsenic	253	ug/L	2.0	05/19/24 00:40	
EPA 6020	Barium	69.3	ug/L	1.0	05/19/24 00:44	
EPA 6020	Cobalt	1.9	ug/L	1.0	05/19/24 00:44	
EPA 6020	Manganese	2310	ug/L	20.0	05/19/24 00:36	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372949004	**DUP-1**					
EPA 903.1	Radium-226	0.979 ± 0.688 (0.971) C:NA T:89%	pCi/L		06/05/24 14:58	
EPA 904.0	Radium-228	0.890 ± 0.391 (0.610) C:85% T:85%	pCi/L		05/31/24 15:48	
Total Radium Calculation	Total Radium	1.87 ± 1.08 (1.58)	pCi/L		06/05/24 17:05	
SM 2320B	Alkalinity, Total as CaCO3	101	mg/L	10.0	05/15/24 20:48	
SM 2540C	Total Dissolved Solids	2080	mg/L	40.0	05/15/24 12:27	
SM 4500-H+B	pH at 25 Degrees C	6.6	Std. Units	0.10	05/21/24 17:42	H3
EPA 365.1	Phosphate as P04	0.44	mg/L	0.15	05/28/24 12:27	
SM 5310C	Dissolved Organic Carbon	3.2	mg/L	1.0	05/24/24 20:39	
50372949005	**MW-4C MS**					
EPA 903.1	Radium-226	72.61 %REC ± NA (NA) C:NA T:NA	pCi/L		06/05/24 14:58	
EPA 904.0	Radium-228	92.82 %REC ± NA (NA) C:NA T:NA	pCi/L		05/31/24 15:48	
50372949006	**MW-4C MSD**					
EPA 903.1	Radium-226	92.51 %REC 24.10RPD ± NA (NA) C:NA T:NA	pCi/L		06/05/24 14:58	
EPA 904.0	Radium-228	85.52 %REC 8.19RPD ± NA (NA) C:NA T:NA	pCi/L		05/31/24 15:48	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

Sample: MW-4C **Lab ID: 50372949001** Collected: 05/12/24 12:40 Received: 05/13/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**44.3**	mg/L	2.5	0.67	10		05/23/24 19:50	16887-00-6	
Fluoride	**0.23**	mg/L	0.10	0.017	1		05/23/24 19:34	16984-48-8	
Sulfate	**1340**	mg/L	25.0	19.0	100		05/23/24 20:07	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**3970**	ug/L	100	6.2	1	05/20/24 16:18	05/21/24 14:07	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/20/24 16:18	05/21/24 14:07	7440-43-9	
Calcium	**622000**	ug/L	5000	338	5	05/20/24 16:18	05/21/24 17:41	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/20/24 16:18	05/21/24 14:07	7440-47-3	
Iron	ND	ug/L	100	30.0	1	05/20/24 16:18	05/21/24 14:07	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/20/24 16:18	05/21/24 14:07	7439-92-1	
Lithium	**350**	ug/L	20.0	6.8	1	05/20/24 16:18	05/21/24 14:07	7439-93-2	
Magnesium	**51600**	ug/L	1000	33.6	1	05/20/24 16:18	05/21/24 14:07	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	05/20/24 16:18	05/21/24 14:07	7439-98-7	
Potassium	**64900**	ug/L	1000	97.8	1	05/20/24 16:18	05/21/24 14:07	7440-09-7	
Sodium	**84100**	ug/L	1000	54.8	1	05/20/24 16:18	05/21/24 14:07	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**4100**	ug/L	100	6.2	1	05/20/24 16:11	05/21/24 03:03	7440-42-8	
Lithium, Dissolved	**382**	ug/L	20.0	6.8	1	05/20/24 16:11	05/21/24 03:03	7439-93-2	
Molybdenum, Dissolved	**10.1**	ug/L	10.0	0.78	1	05/20/24 16:11	05/21/24 03:03	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	05/17/24 09:45	05/19/24 01:00	7440-36-0	
Arsenic	ND	ug/L	1.0	0.10	1	05/17/24 09:45	05/21/24 23:06	7440-38-2	
Barium	**27.4**	ug/L	1.0	0.062	1	05/17/24 09:45	05/21/24 23:06	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	05/17/24 09:45	05/21/24 23:06	7440-41-7	
Cobalt	**1.1**	ug/L	1.0	0.060	1	05/17/24 09:45	05/19/24 01:00	7440-48-4	
Manganese	**2670**	ug/L	20.0	3.0	20	05/17/24 09:45	05/18/24 08:51	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	05/17/24 09:45	05/21/24 23:06	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	05/17/24 09:45	05/19/24 01:00	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	05/17/24 09:45	05/18/24 02:29	7429-90-5	1d
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/23/24 09:55	05/23/24 19:09	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

Sample: MW-4C **Lab ID: 50372949001** Collected: 05/12/24 12:40 Received: 05/13/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**429**	mg/L	10.0	10.0	1		05/15/24 20:48		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2640**	mg/L	40.0	40.0	1		05/15/24 12:20		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.8**	Std. Units	0.10	0.10	1		05/21/24 17:39		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/13/24 14:13	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/14/24 01:38	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	05/24/24 11:30	05/28/24 12:22		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.3**	mg/L	1.0	0.25	1		05/24/24 18:42		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

Sample: Field Blank **Lab ID: 50372949002** Collected: 05/12/24 08:00 Received: 05/13/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	ND	mg/L	0.25	0.067	1		05/23/24 22:43	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/23/24 22:43	16984-48-8	
Sulfate	ND	mg/L	0.25	0.19	1		05/23/24 22:43	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	ND	ug/L	100	6.2	1	05/20/24 16:18	05/21/24 14:15	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/20/24 16:18	05/21/24 14:15	7440-43-9	
Calcium	ND	ug/L	1000	67.7	1	05/20/24 16:18	05/21/24 14:15	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/20/24 16:18	05/21/24 14:15	7440-47-3	
Iron	ND	ug/L	100	30.0	1	05/20/24 16:18	05/21/24 14:15	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/20/24 16:18	05/21/24 14:15	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/20/24 16:18	05/21/24 14:15	7439-93-2	
Magnesium	ND	ug/L	1000	33.6	1	05/20/24 16:18	05/21/24 14:15	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	05/20/24 16:18	05/21/24 14:15	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	05/20/24 16:18	05/21/24 14:15	7440-09-7	
Sodium	ND	ug/L	1000	54.8	1	05/20/24 16:18	05/21/24 14:15	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	05/17/24 09:45	05/18/24 09:47	7440-36-0	
Arsenic	ND	ug/L	1.0	0.10	1	05/17/24 09:45	05/18/24 09:47	7440-38-2	
Barium	ND	ug/L	1.0	0.062	1	05/17/24 09:45	05/18/24 09:47	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	05/17/24 09:45	05/18/24 09:47	7440-41-7	
Cobalt	ND	ug/L	1.0	0.060	1	05/17/24 09:45	05/18/24 09:47	7440-48-4	
Manganese	ND	ug/L	1.0	0.15	1	05/17/24 09:45	05/18/24 09:47	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	05/17/24 09:45	05/18/24 09:47	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	05/17/24 09:45	05/18/24 09:47	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/23/24 09:55	05/23/24 19:16	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	ND	mg/L	10.0	10.0	1		05/15/24 20:48		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		05/15/24 12:21		PL
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.0**	Std. Units	0.10	0.10	1		05/21/24 17:40		H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

Sample: Field Blank **Lab ID: 50372949002** Collected: 05/12/24 08:00 Received: 05/13/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/13/24 14:13	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/14/24 01:32	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	05/24/24 11:30	05/28/24 12:23		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

Sample: MW-3 **Lab ID: 50372949003** Collected: 05/12/24 14:15 Received: 05/13/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**52.4**	mg/L	2.5	0.67	10		05/23/24 23:17	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/23/24 23:00	16984-48-8	
Sulfate	**1260**	mg/L	25.0	19.0	100		05/23/24 23:35	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**863**	ug/L	100	6.2	1	05/20/24 16:18	05/21/24 14:17	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/20/24 16:18	05/21/24 14:17	7440-43-9	
Calcium	**430000**	ug/L	5000	338	5	05/20/24 16:18	05/21/24 18:19	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/20/24 16:18	05/21/24 14:17	7440-47-3	
Iron	ND	ug/L	100	30.0	1	05/20/24 16:18	05/21/24 14:17	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/20/24 16:18	05/21/24 14:17	7439-92-1	
Lithium	**1620**	ug/L	20.0	6.8	1	05/20/24 16:18	05/21/24 14:17	7439-93-2	
Magnesium	**9050**	ug/L	1000	33.6	1	05/20/24 16:18	05/21/24 14:17	7439-95-4	
Molybdenum	**426**	ug/L	10.0	0.78	1	05/20/24 16:18	05/21/24 14:17	7439-98-7	
Potassium	**221000**	ug/L	5000	489	5	05/20/24 16:18	05/21/24 18:19	7440-09-7	
Sodium	**90600**	ug/L	1000	54.8	1	05/20/24 16:18	05/21/24 14:17	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**879**	ug/L	100	6.2	1	05/20/24 16:11	05/21/24 03:08	7440-42-8	
Lithium, Dissolved	**1680**	ug/L	20.0	6.8	1	05/20/24 16:11	05/21/24 03:08	7439-93-2	
Molybdenum, Dissolved	**433**	ug/L	10.0	0.78	1	05/20/24 16:11	05/21/24 03:08	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	**2.1**	ug/L	1.0	0.26	1	05/17/24 09:45	05/18/24 09:59	7440-36-0	
Arsenic	**234**	ug/L	2.0	0.20	2	05/17/24 09:45	05/19/24 00:32	7440-38-2	
Barium	**70.5**	ug/L	1.0	0.062	1	05/17/24 09:45	05/18/24 09:59	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	05/17/24 09:45	05/18/24 09:59	7440-41-7	
Cobalt	**1.9**	ug/L	1.0	0.060	1	05/17/24 09:45	05/18/24 09:59	7440-48-4	
Manganese	**2260**	ug/L	20.0	3.0	20	05/17/24 09:45	05/18/24 09:55	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	05/17/24 09:45	05/18/24 09:59	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	05/17/24 09:45	05/18/24 09:59	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	05/17/24 09:45	05/18/24 03:01	7429-90-5	1d
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/23/24 09:55	05/23/24 19:19	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

Sample: MW-3 **Lab ID: 50372949003** Collected: 05/12/24 14:15 Received: 05/13/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**98.4**	mg/L	10.0	10.0	1		05/15/24 20:48		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2080**	mg/L	40.0	40.0	1		05/15/24 12:26		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**8.5**	Std. Units	0.10	0.10	1		05/21/24 17:41		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.50	0.12	5		05/15/24 14:09	18496-25-8	D3
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/14/24 01:47	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.45**	mg/L	0.15	0.13	1	05/24/24 11:30	05/28/24 12:25		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.3**	mg/L	1.0	0.25	1		05/24/24 20:19		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

Sample: DUP-1 **Lab ID: 50372949004** Collected: 05/12/24 08:00 Received: 05/13/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**54.5**	mg/L	2.5	0.67	10		05/24/24 00:45	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/24/24 00:27	16984-48-8	
Sulfate	**1230**	mg/L	25.0	19.0	100		05/24/24 01:02	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**866**	ug/L	100	6.2	1	05/20/24 16:18	05/21/24 14:19	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/20/24 16:18	05/21/24 14:19	7440-43-9	
Calcium	**426000**	ug/L	5000	338	5	05/20/24 16:18	05/21/24 18:21	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/20/24 16:18	05/21/24 14:19	7440-47-3	
Iron	ND	ug/L	100	30.0	1	05/20/24 16:18	05/21/24 14:19	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/20/24 16:18	05/21/24 14:19	7439-92-1	
Lithium	**1650**	ug/L	20.0	6.8	1	05/20/24 16:18	05/21/24 14:19	7439-93-2	
Magnesium	**8900**	ug/L	1000	33.6	1	05/20/24 16:18	05/21/24 14:19	7439-95-4	
Molybdenum	**428**	ug/L	10.0	0.78	1	05/20/24 16:18	05/21/24 14:19	7439-98-7	
Potassium	**223000**	ug/L	5000	489	5	05/20/24 16:18	05/21/24 18:21	7440-09-7	
Sodium	**91900**	ug/L	1000	54.8	1	05/20/24 16:18	05/21/24 14:19	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**882**	ug/L	100	6.2	1	05/20/24 16:11	05/21/24 03:13	7440-42-8	
Lithium, Dissolved	**1680**	ug/L	20.0	6.8	1	05/20/24 16:11	05/21/24 03:13	7439-93-2	
Molybdenum, Dissolved	**438**	ug/L	10.0	0.78	1	05/20/24 16:11	05/21/24 03:13	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	**2.1**	ug/L	1.0	0.26	1	05/17/24 09:45	05/19/24 00:44	7440-36-0	
Arsenic	**253**	ug/L	2.0	0.20	2	05/17/24 09:45	05/19/24 00:40	7440-38-2	
Barium	**69.3**	ug/L	1.0	0.062	1	05/17/24 09:45	05/19/24 00:44	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	05/17/24 09:45	05/19/24 00:44	7440-41-7	
Cobalt	**1.9**	ug/L	1.0	0.060	1	05/17/24 09:45	05/19/24 00:44	7440-48-4	
Manganese	**2310**	ug/L	20.0	3.0	20	05/17/24 09:45	05/19/24 00:36	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	05/17/24 09:45	05/19/24 00:44	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	05/17/24 09:45	05/19/24 00:44	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	05/17/24 09:45	05/18/24 03:04	7429-90-5	1d
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/23/24 09:55	05/23/24 19:21	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

Sample: DUP-1 **Lab ID: 50372949004** Collected: 05/12/24 08:00 Received: 05/13/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**101**	mg/L	10.0	10.0	1		05/15/24 20:48		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2080**	mg/L	40.0	40.0	1		05/15/24 12:27		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.6**	Std. Units	0.10	0.10	1		05/21/24 17:42		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.50	0.12	5		05/15/24 14:09	18496-25-8	D3
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/14/24 01:34	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.44**	mg/L	0.15	0.13	1	05/24/24 11:30	05/28/24 12:27		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.2**	mg/L	1.0	0.25	1		05/24/24 20:39		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

QC Batch: 791634
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372949001, 50372949002, 50372949003, 50372949004

METHOD BLANK: 3622402 Matrix: Water
Associated Lab Samples: 50372949001, 50372949002, 50372949003, 50372949004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/23/24 17:54	
Fluoride	mg/L	ND	0.10	0.017	05/23/24 17:54	
Sulfate	mg/L	ND	0.25	0.19	05/23/24 17:54	

LABORATORY CONTROL SAMPLE: 3622403

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	94	80-120	
Fluoride	mg/L	1	0.96	96	80-120	
Sulfate	mg/L	5	4.7	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3622404 3622405

Parameter	Units	50372949001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	44.3	25	25	69.0	69.3	99	100	80-120	0	15	
Fluoride	mg/L	0.23	1	1	1.2	1.2	101	94	80-120	6	15	
Sulfate	mg/L	1340	500	500	1900	1740	114	81	80-120	9	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

QC Batch: 791144
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372949001, 50372949002, 50372949003, 50372949004

METHOD BLANK: 3620147 Matrix: Water
Associated Lab Samples: 50372949001, 50372949002, 50372949003, 50372949004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	05/23/24 18:42	

LABORATORY CONTROL SAMPLE: 3620148

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.8	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3620149 3620150

Parameter	Units	50372949001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.0	5.0	100	100	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

QC Batch: 789981
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372949001, 50372949002, 50372949003, 50372949004

METHOD BLANK: 3614587 Matrix: Water
Associated Lab Samples: 50372949001, 50372949002, 50372949003, 50372949004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	05/21/24 13:30	
Cadmium	ug/L	ND	2.0	0.60	05/21/24 13:30	
Calcium	ug/L	ND	1000	67.7	05/21/24 13:30	
Chromium	ug/L	ND	10.0	0.42	05/21/24 13:30	
Iron	ug/L	ND	100	30.0	05/21/24 13:30	
Lead	ug/L	ND	10.0	2.5	05/21/24 13:30	
Lithium	ug/L	ND	20.0	6.8	05/21/24 13:30	
Magnesium	ug/L	ND	1000	33.6	05/21/24 13:30	
Molybdenum	ug/L	ND	10.0	0.78	05/21/24 13:30	
Potassium	ug/L	ND	1000	97.8	05/21/24 13:30	
Sodium	ug/L	ND	1000	54.8	05/21/24 13:30	

LABORATORY CONTROL SAMPLE: 3614588

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	935	93	80-120	
Cadmium	ug/L	1000	921	92	80-120	
Calcium	ug/L	10000	9710	97	80-120	
Chromium	ug/L	1000	953	95	80-120	
Iron	ug/L	10000	9340	93	80-120	
Lead	ug/L	1000	913	91	80-120	
Lithium	ug/L	1000	932	93	80-120	
Magnesium	ug/L	10000	9200	92	80-120	
Molybdenum	ug/L	1000	972	97	80-120	
Potassium	ug/L	10000	9440	94	80-120	
Sodium	ug/L	10000	9130	91	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614589 3614590

Parameter	Units	50372871008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	149	1000	1000	1130	1160	98	101	75-125	3	20	
Cadmium	ug/L	ND	1000	1000	966	990	97	99	75-125	2	20	
Calcium	ug/L	101000	10000	10000	112000	113000	111	123	75-125	1	20	
Chromium	ug/L	ND	1000	1000	981	1010	98	101	75-125	3	20	
Iron	ug/L	1420	10000	10000	11000	11300	95	99	75-125	3	20	
Lead	ug/L	ND	1000	1000	928	951	93	95	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614589 3614590

Parameter	Units	50372871008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	ND	1000	1000	1010	1000	101	100	75-125	1	20	
Magnesium	ug/L	29900	10000	10000	39500	40200	96	103	75-125	2	20	
Molybdenum	ug/L	ND	1000	1000	1020	1050	102	105	75-125	3	20	
Potassium	ug/L	2030	10000	10000	12400	12100	104	101	75-125	2	20	
Sodium	ug/L	19200	10000	10000	30100	29300	109	101	75-125	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614591 3614592

Parameter	Units	50372949001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	3970	1000	1000	4760	4760	79	79	75-125	0	20	
Cadmium	ug/L	ND	1000	1000	981	953	98	95	75-125	3	20	
Calcium	ug/L	622000	10000	10000	594000	600000	-281	-222	75-125	1	20	P6
Chromium	ug/L	ND	1000	1000	974	948	97	95	75-125	3	20	
Iron	ug/L	ND	10000	10000	9420	9160	94	91	75-125	3	20	
Lead	ug/L	ND	1000	1000	903	877	90	88	75-125	3	20	
Lithium	ug/L	350	1000	1000	1320	1290	97	94	75-125	2	20	
Magnesium	ug/L	51600	10000	10000	58000	57600	64	61	75-125	1	20	P6
Molybdenum	ug/L	ND	1000	1000	1030	998	102	99	75-125	3	20	
Potassium	ug/L	64900	10000	10000	72400	71400	75	65	75-125	1	20	P6
Sodium	ug/L	84100	10000	10000	89700	89100	56	50	75-125	1	20	P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

QC Batch: 789968
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372949001, 50372949003, 50372949004

METHOD BLANK: 3614535 Matrix: Water
Associated Lab Samples: 50372949001, 50372949003, 50372949004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	05/21/24 02:33	
Lithium, Dissolved	ug/L	ND	20.0	6.8	05/21/24 02:33	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	05/21/24 02:33	

LABORATORY CONTROL SAMPLE: 3614536

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	966	97	80-120	
Lithium, Dissolved	ug/L	1000	999	100	80-120	
Molybdenum, Dissolved	ug/L	1000	1030	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614537 3614538

Parameter	Units	50372871008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	151	1000	1000	1120	1130	97	98	75-125	1	20	
Lithium, Dissolved	ug/L	ND	1000	1000	1010	987	100	98	75-125	2	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1020	1020	102	102	75-125	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614539 3614540

Parameter	Units	50372949001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	4100	1000	1000	5040	5180	94	108	75-125	3	20	
Lithium, Dissolved	ug/L	382	1000	1000	1410	1440	103	106	75-125	2	20	
Molybdenum, Dissolved	ug/L	10.1	1000	1000	1060	1090	105	108	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

QC Batch: 790472
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372949001, 50372949002, 50372949003, 50372949004

METHOD BLANK: 3617134 Matrix: Water
Associated Lab Samples: 50372949001, 50372949002, 50372949003, 50372949004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.26	05/18/24 07:15	
Arsenic	ug/L	ND	1.0	0.10	05/18/24 07:15	
Barium	ug/L	ND	1.0	0.062	05/18/24 07:15	
Beryllium	ug/L	ND	0.20	0.020	05/18/24 07:15	
Cobalt	ug/L	ND	1.0	0.060	05/18/24 07:15	
Manganese	ug/L	ND	1.0	0.15	05/18/24 07:15	
Selenium	ug/L	ND	1.0	0.36	05/18/24 07:15	
Thallium	ug/L	ND	1.0	0.079	05/18/24 07:15	

LABORATORY CONTROL SAMPLE: 3617135

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	43.2	108	80-120	
Arsenic	ug/L	40	38.6	96	80-120	
Barium	ug/L	40	39.2	98	80-120	
Beryllium	ug/L	40	39.0	98	80-120	
Cobalt	ug/L	40	40.9	102	80-120	
Manganese	ug/L	40	41.1	103	80-120	
Selenium	ug/L	40	40.5	101	80-120	
Thallium	ug/L	40	39.8	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3617136 3617137

Parameter	Units	50372949001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	44.5	45.2	111	113	75-125	2	20	
Arsenic	ug/L	ND	40	40	40.5	40.5	101	101	75-125	0	20	
Barium	ug/L	27.4	40	40	64.9	65.6	94	95	75-125	1	20	
Beryllium	ug/L	ND	40	40	39.1	40.1	98	100	75-125	2	20	
Cobalt	ug/L	1.1	40	40	38.4	38.5	93	94	75-125	0	20	
Manganese	ug/L	2670	40	40	2620	2720	-140	124	75-125	4	20	P6
Selenium	ug/L	ND	40	40	42.5	42.8	106	107	75-125	1	20	
Thallium	ug/L	ND	40	40	39.8	39.9	99	100	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

QC Batch: 790471
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372949001, 50372949003, 50372949004

METHOD BLANK: 3617128 Matrix: Water
Associated Lab Samples: 50372949001, 50372949003, 50372949004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.6	05/18/24 00:37	1d

LABORATORY CONTROL SAMPLE: 3617129

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	399	100	80-120	IC

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3617130 3617131

Parameter	Units	50372949001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	388	403	97	100	75-125	4	20	IC

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

QC Batch: 790209 | Analysis Method: SM 2320B
QC Batch Method: SM 2320B | Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372949001, 50372949002, 50372949003, 50372949004

METHOD BLANK: 3615522 Matrix: Water
Associated Lab Samples: 50372949001, 50372949002, 50372949003, 50372949004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/15/24 20:48	

LABORATORY CONTROL SAMPLE: 3615523

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.8	104	90-110	

SAMPLE DUPLICATE: 3615524

Parameter	Units	50372949001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	429	436	2	20	

SAMPLE DUPLICATE: 3615525

Parameter	Units	50372994001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	661	672	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

QC Batch: 790010
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372949001, 50372949002

METHOD BLANK: 3614682 Matrix: Water
Associated Lab Samples: 50372949001, 50372949002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/15/24 12:15	

LABORATORY CONTROL SAMPLE: 3614683

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	275	92	80-120	

SAMPLE DUPLICATE: 3614684

Parameter	Units	50372871008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	414	415	0	10	

SAMPLE DUPLICATE: 3614685

Parameter	Units	50372949001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2640	2550	3	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

QC Batch: 790012
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372949003, 50372949004

METHOD BLANK: 3614686 Matrix: Water
Associated Lab Samples: 50372949003, 50372949004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/15/24 12:26	

LABORATORY CONTROL SAMPLE: 3614687

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	280	93	80-120	

SAMPLE DUPLICATE: 3614688

Parameter	Units	50372949003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2080	2040	2	10	

SAMPLE DUPLICATE: 3614689

Parameter	Units	50372995007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2150	2110	2	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

QC Batch: 791157
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372949001, 50372949002, 50372949003, 50372949004

SAMPLE DUPLICATE: 3620207

Parameter	Units	50372871008 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.2	7.2	0	2	H3

SAMPLE DUPLICATE: 3620208

Parameter	Units	50372949001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.8	6.9	2	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

QC Batch: 789602
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372949001, 50372949002

METHOD BLANK: 3612957 Matrix: Water
Associated Lab Samples: 50372949001, 50372949002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/13/24 14:13	

LABORATORY CONTROL SAMPLE: 3612958

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.53	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3612959 3612960

Parameter	Units	50372949001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.29	0.29	58	58	90-110	1	20	M3

MATRIX SPIKE SAMPLE: 3612961

Parameter	Units	50372867001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	5.5J	5	9.9	89	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

QC Batch: 790112
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372949003, 50372949004

METHOD BLANK: 3615020 Matrix: Water
Associated Lab Samples: 50372949003, 50372949004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/15/24 14:09	

LABORATORY CONTROL SAMPLE: 3615021

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.48	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3615022 3615023

Parameter	Units	50372949003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	2.5	2.5	2.6	2.5	89	88	90-110	1	20	M3

MATRIX SPIKE SAMPLE: 3615024

Parameter	Units	50372995001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.16J	0.5	0.60	89	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

QC Batch: 789705
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372949001, 50372949002, 50372949003, 50372949004

METHOD BLANK: 3613402 Matrix: Water
Associated Lab Samples: 50372949001, 50372949002, 50372949003, 50372949004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/14/24 01:25	

LABORATORY CONTROL SAMPLE: 3613403

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3613404 3613405

Parameter	Units	50372949001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	0.99	0.99	99	99	90-110	0	20	

MATRIX SPIKE SAMPLE: 3613406

Parameter	Units	50372949003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.0	100	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

QC Batch: 791867 | Analysis Method: EPA 365.1
QC Batch Method: EPA 365.1 | Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372949001, 50372949002, 50372949003, 50372949004

METHOD BLANK: 3623739 Matrix: Water
Associated Lab Samples: 50372949001, 50372949002, 50372949003, 50372949004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	05/28/24 12:09	

LABORATORY CONTROL SAMPLE: 3623740

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3623741 3623742

Parameter	Units	50372949001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.6	1.6				4		

MATRIX SPIKE SAMPLE: 3623743

Parameter	Units	50372949003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	0.45		2.0			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

QC Batch: 791657
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372949001, 50372949003, 50372949004

METHOD BLANK: 3622553 Matrix: Water
Associated Lab Samples: 50372949001, 50372949003, 50372949004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	05/23/24 20:33	

LABORATORY CONTROL SAMPLE: 3622554

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.2	92	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3622555 3622556

Parameter	Units	50372871008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	10	10	10.5	10.1	97	93	80-120	4	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3622557 3622558

Parameter	Units	50372949001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.3	10	10	11.6	11.4	93	91	80-120	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

Sample: MW-4C **Lab ID: 50372949001** Collected: 05/12/24 12:40 Received: 05/13/24 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.000 ± 0.424 (0.837) C:NA T:89%**	pCi/L	06/05/24 14:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.995 ± 0.459 (0.780) C:83% T:84%**	pCi/L	05/31/24 15:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.995 ± 0.883 (1.62)**	pCi/L	06/05/24 17:05	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

Sample: Field Blank **Lab ID: 50372949002** Collected: 05/12/24 08:00 Received: 05/13/24 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.302 ± 0.758 (1.51) C:NA T:93%**	pCi/L	06/05/24 14:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.385 ± 0.374 (0.766) C:83% T:80%**	pCi/L	05/31/24 15:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.385 ± 1.13 (2.28)**	pCi/L	06/05/24 17:05	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

Sample: MW-3 **Lab ID: 50372949003** Collected: 05/12/24 14:15 Received: 05/13/24 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.642 ± 0.736 (1.21) C:NA T:87%**	pCi/L	06/05/24 14:58	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.288 ± 0.301 (0.617) C:80% T:87%**	pCi/L	05/31/24 15:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.930 ± 1.04 (1.83)**	pCi/L	06/05/24 17:05	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

Sample: DUP-1 **Lab ID: 50372949004** Collected: 05/12/24 08:00 Received: 05/13/24 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.979 ± 0.688 (0.971) C:NA T:89%**	pCi/L	06/05/24 14:58	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.890 ± 0.391 (0.610) C:85% T:85%**	pCi/L	05/31/24 15:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.87 ± 1.08 (1.58)**	pCi/L	06/05/24 17:05	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

Sample: MW-4C MS **Lab ID: 50372949005** Collected: 05/12/24 12:40 Received: 05/13/24 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**72.61 %REC ± NA (NA) C:NA T:NA**	pCi/L	06/05/24 14:58	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**92.82 %REC ± NA (NA) C:NA T:NA**	pCi/L	05/31/24 15:48	15262-20-1	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

Sample: MW-4C MSD **Lab ID: 50372949006** Collected: 05/12/24 12:40 Received: 05/13/24 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**92.51 %REC 24.10RPD ± NA (NA) C:NA T:NA**	pCi/L	06/05/24 14:58	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**85.52 %REC 8.19RPD ± NA (NA) C:NA T:NA**	pCi/L	05/31/24 15:48	15262-20-1	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

QC Batch: 669130
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372949001, 50372949002, 50372949003, 50372949004, 50372949005, 50372949006

METHOD BLANK: 3258482 Matrix: Water
Associated Lab Samples: 50372949001, 50372949002, 50372949003, 50372949004, 50372949005, 50372949006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0506 ± 0.231 (0.470) C:NA T:82%	pCi/L	06/05/24 14:46	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

QC Batch: 669131
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372949001, 50372949002, 50372949003, 50372949004, 50372949005, 50372949006

METHOD BLANK: 3258483 Matrix: Water
Associated Lab Samples: 50372949001, 50372949002, 50372949003, 50372949004, 50372949005, 50372949006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.245 ± 0.355 (0.873) C:81% T:80%	pCi/L	05/31/24 15:47	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

1d	The initial calibration for this compound was outside of method control limits. Result unaffected by high bias. MTM 5/18/24
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
H3	Sample was received or analysis requested beyond the recognized method holding time.
IC	The initial calibration for this compound was outside of method control limits. The result is estimated.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
PL	The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50372949001	**MW-4C**	EPA 9056	791634		
50372949002	**Field Blank**	EPA 9056	791634		
50372949003	**MW-3**	EPA 9056	791634		
50372949004	**DUP-1**	EPA 9056	791634		
50372949001	**MW-4C**	EPA 3010	789981	EPA 6010	791166
50372949002	**Field Blank**	EPA 3010	789981	EPA 6010	791166
50372949003	**MW-3**	EPA 3010	789981	EPA 6010	791166
50372949004	**DUP-1**	EPA 3010	789981	EPA 6010	791166
50372949001	**MW-4C**	EPA 3010	789968	EPA 6010	791028
50372949003	**MW-3**	EPA 3010	789968	EPA 6010	791028
50372949004	**DUP-1**	EPA 3010	789968	EPA 6010	791028
50372949001	**MW-4C**	EPA 200.2	790472	EPA 6020	790701
50372949002	**Field Blank**	EPA 200.2	790472	EPA 6020	790701
50372949003	**MW-3**	EPA 200.2	790472	EPA 6020	790701
50372949004	**DUP-1**	EPA 200.2	790472	EPA 6020	790701
50372949001	**MW-4C**	EPA 200.2	790471	EPA 6020	790700
50372949003	**MW-3**	EPA 200.2	790471	EPA 6020	790700
50372949004	**DUP-1**	EPA 200.2	790471	EPA 6020	790700
50372949001	**MW-4C**	EPA 7470	791144	EPA 7470	791745
50372949002	**Field Blank**	EPA 7470	791144	EPA 7470	791745
50372949003	**MW-3**	EPA 7470	791144	EPA 7470	791745
50372949004	**DUP-1**	EPA 7470	791144	EPA 7470	791745
50372949001	**MW-4C**	EPA 903.1	669130		
50372949002	**Field Blank**	EPA 903.1	669130		
50372949003	**MW-3**	EPA 903.1	669130		
50372949004	**DUP-1**	EPA 903.1	669130		
50372949005	**MW-4C MS**	EPA 903.1	669130		
50372949006	**MW-4C MSD**	EPA 903.1	669130		
50372949001	**MW-4C**	EPA 904.0	669131		
50372949002	**Field Blank**	EPA 904.0	669131		
50372949003	**MW-3**	EPA 904.0	669131		
50372949004	**DUP-1**	EPA 904.0	669131		
50372949005	**MW-4C MS**	EPA 904.0	669131		
50372949006	**MW-4C MSD**	EPA 904.0	669131		
50372949001	**MW-4C**	Total Radium Calculation	673549		
50372949002	**Field Blank**	Total Radium Calculation	673549		
50372949003	**MW-3**	Total Radium Calculation	673549		
50372949004	**DUP-1**	Total Radium Calculation	673549		
50372949001	**MW-4C**	SM 2320B	790209		
50372949002	**Field Blank**	SM 2320B	790209		
50372949003	**MW-3**	SM 2320B	790209		
50372949004	**DUP-1**	SM 2320B	790209		
50372949001	**MW-4C**	SM 2540C	790010		
50372949002	**Field Blank**	SM 2540C	790010		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P2R1
Pace Project No.: 50372949

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50372949003	**MW-3**	SM 2540C	790012		
50372949004	**DUP-1**	SM 2540C	790012		
50372949001	**MW-4C**	SM 4500-H+B	791157		
50372949002	**Field Blank**	SM 4500-H+B	791157		
50372949003	**MW-3**	SM 4500-H+B	791157		
50372949004	**DUP-1**	SM 4500-H+B	791157		
50372949001	**MW-4C**	SM 4500-S2-D	789602		
50372949002	**Field Blank**	SM 4500-S2-D	789602		
50372949003	**MW-3**	SM 4500-S2-D	790112		
50372949004	**DUP-1**	SM 4500-S2-D	790112		
50372949001	**MW-4C**	EPA 353.2	789705		
50372949002	**Field Blank**	EPA 353.2	789705		
50372949003	**MW-3**	EPA 353.2	789705		
50372949004	**DUP-1**	EPA 353.2	789705		
50372949001	**MW-4C**	EPA 365.1	791867	EPA 365.1	792297
50372949002	**Field Blank**	EPA 365.1	791867	EPA 365.1	792297
50372949003	**MW-3**	EPA 365.1	791867	EPA 365.1	792297
50372949004	**DUP-1**	EPA 365.1	791867	EPA 365.1	792297
50372949001	**MW-4C**	SM 5310C	791657		
50372949003	**MW-3**	SM 5310C	791657		
50372949004	**DUP-1**	SM 5310C	791657		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO# : 50372949

50372949

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A — Required Client Information:

Company:	Atlas Indianapolis
Address:	7988 Centerpoint Drive Suite 100
	Indianapolis, IN 46256
Email:	mark.breting@oneatlas.com
Phone:	(317)579-4082 Fax:
Requested Due Date:	

Required Project Information:

Report To:	Mark Breting
Copy To:	
Purchase Order #:	
Project Name:	Petersburg May 2024 P2R1
Project #:	

Section C — Invoice Information:

Attention:	Accounts Payable - Paula Sedam
Company Name:	Atlas Indianapolis
Address:	
Pace Quote:	
Pace Project Manager:	Will Statz
Pace Profile #:	10498/59

Regulatory Agency:

State / Location: IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total Metals 6010/6020/7470	Diss. Metals 6010/6020	DOC by 5310	Alkalinity/pH	Cl, F, SO4 by 9056	TDS by 2540C	Nitrate by 353.2	Phosphate by 365.1	Sulfide by 4500	Rad 226/228 + Sum to PA			Residual Chlorine (Y/N)	
1	MW-4C			5/12/24	1240				10	X	X	X		X					X	X	X	X	X	X	X	X	X				001
2	MS-1			5/12/24	1240				10	X	X	X		X					X	X	X	X	X	X	X	X	X				
3	MSD-1			5/12/24	1240				10	X	X	X		X					X	X	X	X	X	X	X	X	X				
4	Field Blank			5/12/24					8	X	X	X		X					X	X	X	X	X	X	X	X	X				002
5	MW-3			5/12/24	1415				10	X	X	X		X					X	X	X	X	X	X	X	X	X				003
6	DUP-1			5/12/24					10	X	X	X		X					X	X	X	X	X	X	X	X	X				004
7																															
8																															
9																															
10																															
11																															
12																															

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
letals* 6010: B, Cd, Cr, Fe, Pb, Mo, Ca, Mg, Na, K, Li (11)		5/13/24	7:00		5/13/24	7:00
020: Be, Mn, Co, As, Se, Sb, Ba, Tl (8). 7470: Hg (1)	Joy Williams	5/13/24	9:45	Lawrence	5/13/24	945
iss 6010: B, Mo, Li (3). Diss 6020: Al, Mn (2)						

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Josh O'Brian

SIGNATURE of SAMPLER: [signature] DATE Signed: 5-12-24

SAMPLE CONDITIONS			
TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
2.2	Y	Y	Y
~~2.8~~ 1.8			
2.4	Y	Y	Y
2.7	Y	Y	Y

F-IN-Q-290-rev.26, 30Apr2024

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 5/13/24 1120 IL

1. **Courier:** ☐FED EX | UPS ☑CLIENT ☐PACE ☐NOW/JETT | OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H
4. **Cooler Temperature(s):** (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

2.4/2.2	2.4/2.4	2.9/2.7	

5. **Packing Material:** ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **Was the PM notified of out of temp cooler?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C
8. **EZ Bottle Order?** ☐ Yes ☑ No
   If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.**	✓		
Short Hold Time Analysis (48 hours or less)? **Analysis:** Nitrate 3532	✓		**Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 1240			Present	Absent	N/A
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Custody Signatures Present?	✓		Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Containers Intact?:	✓		Headspace Wisconsin Sulfide?			✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓ 4/13	✓	Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Extra labels on Terracore Vials? (soils only)			Trip Blank Present?		✓	
			Trip Blank Custody Seals?:			✓

COMMENTS: No time on all MS/MSD bottles. IL 5/13

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC									OTHER								
			MeOH (only)																													
			SBS																													
			DI																													
COC Line Item	WGFU	WGKU BG1U	R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1													3			6	3	6	3	3	3		3					WT	✓	✓		✓
2																																
3																				1&5/3												
4																2	1	2	1		1		1					WT	✓	✓		✓
5													1							1									✓	✓		✓
6																↓	↓	↓	↓	↓	↓		↓					↓	✓	✓		✓
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

July 24, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 P1R1
Pace Project No.: 50372953

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 13, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372953

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372953

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50372953001	**MW-4C**	Water	05/12/24 12:40	05/13/24 09:45
50372953002	**Field Blank**	Water	05/12/24 08:00	05/13/24 09:45
50372953003	**MW-3**	Water	05/12/24 14:15	05/13/24 09:45
50372953004	**DUP-1**	Water	05/12/24 08:00	05/13/24 09:45

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372953

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50372953001	**MW-4C**	EPA 9056	KBB	3	PASI-I
		EPA 6010	NWB	9	PASI-I
		EPA 6020	MTM	9	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C	SL	1	PASI-I
50372953002	**Field Blank**	EPA 9056	KBB	3	PASI-I
		EPA 6010	NWB	9	PASI-I
		EPA 6020	MTM	9	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C	SL	1	PASI-I
50372953003	**MW-3**	EPA 9056	KBB	3	PASI-I
		EPA 6010	NWB	9	PASI-I
		EPA 6020	MTM	9	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C	SL	1	PASI-I
50372953004	**DUP-1**	EPA 9056	KBB	3	PASI-I
		EPA 6010	NWB	9	PASI-I
		EPA 6020	MTM	9	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C	SL	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372953

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372953001	**MW-4C**					
EPA 9056	Chloride	43.5	mg/L	2.5	05/24/24 01:37	
EPA 9056	Fluoride	0.24	mg/L	0.10	05/24/24 01:19	
EPA 9056	Sulfate	1440	mg/L	25.0	05/24/24 01:54	
EPA 6010	Boron	3940	ug/L	100	05/21/24 14:29	
EPA 6010	Calcium	574000	ug/L	5000	05/21/24 15:37	
EPA 6010	Lithium	366	ug/L	20.0	05/21/24 14:29	
EPA 6010	Manganese	2650	ug/L	10.0	05/21/24 14:29	
EPA 6020	Barium	27.5	ug/L	1.0	05/22/24 04:48	
EPA 6020	Cobalt	1.2	ug/L	1.0	05/22/24 04:48	
EPA 6020	Copper	3.3	ug/L	1.0	05/22/24 04:48	
EPA 903.1	Radium-226	0.115 ± 0.452 (0.866) C:NA T:91%	pCi/L		06/04/24 15:17	
EPA 904.0	Radium-228	0.431 ± 0.424 (0.874) C:82% T:81%	pCi/L		05/31/24 14:16	
Total Radium Calculation	Total Radium	0.546 ± 0.876 (1.74)	pCi/L		06/05/24 11:48	
SM 2540C	Total Dissolved Solids	2420	mg/L	40.0	05/15/24 12:27	
50372953002	**Field Blank**					
EPA 903.1	Radium-226	-0.250 ± 0.460 (1.04) C:NA T:92%	pCi/L		06/04/24 15:17	
EPA 904.0	Radium-228	-0.0631 ± 0.283 (0.685) C:80% T:85%	pCi/L		05/31/24 14:31	
Total Radium Calculation	Total Radium	0.000 ± 0.743 (1.73)	pCi/L		06/05/24 11:48	
50372953003	**MW-3**					
EPA 9056	Chloride	52.7	mg/L	2.5	05/24/24 02:47	
EPA 9056	Sulfate	1250	mg/L	25.0	05/24/24 03:04	
EPA 6010	Boron	842	ug/L	100	05/21/24 14:44	
EPA 6010	Calcium	390000	ug/L	5000	05/21/24 15:47	
EPA 6010	Lithium	1600	ug/L	20.0	05/21/24 14:44	
EPA 6010	Manganese	2140	ug/L	10.0	05/21/24 14:44	
EPA 6010	Molybdenum	414	ug/L	10.0	05/21/24 14:44	
EPA 6020	Antimony	2.4	ug/L	1.0	05/22/24 04:56	
EPA 6020	Arsenic	263	ug/L	2.0	05/23/24 08:26	
EPA 6020	Barium	72.9	ug/L	1.0	05/22/24 04:56	
EPA 6020	Cobalt	1.9	ug/L	1.0	05/22/24 04:56	
EPA 6020	Copper	2.0	ug/L	1.0	05/22/24 04:56	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372953

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372953003	**MW-3**					
EPA 903.1	Radium-226	0.530 ± 0.686 (1.15) C:NA T:88%	pCi/L		06/04/24 15:17	
EPA 904.0	Radium-228	0.967 ± 0.462 (0.771) C:75% T:85%	pCi/L		05/31/24 14:31	
Total Radium Calculation	Total Radium	1.50 ± 1.15 (1.92)	pCi/L		06/05/24 11:48	
SM 2540C	Total Dissolved Solids	2120	mg/L	40.0	05/15/24 12:28	
50372953004	**DUP-1**					
EPA 9056	Chloride	52.8	mg/L	2.5	05/24/24 04:14	
EPA 9056	Sulfate	1320	mg/L	25.0	05/24/24 04:31	
EPA 6010	Boron	882	ug/L	100	05/21/24 14:46	
EPA 6010	Calcium	404000	ug/L	5000	05/21/24 15:48	
EPA 6010	Lithium	1690	ug/L	20.0	05/21/24 14:46	
EPA 6010	Manganese	2220	ug/L	10.0	05/21/24 14:46	
EPA 6010	Molybdenum	429	ug/L	10.0	05/21/24 14:46	
EPA 6020	Antimony	2.4	ug/L	1.0	05/22/24 05:00	
EPA 6020	Arsenic	257	ug/L	2.0	05/23/24 08:30	
EPA 6020	Barium	72.4	ug/L	1.0	05/22/24 05:00	
EPA 6020	Cobalt	1.9	ug/L	1.0	05/22/24 05:00	
EPA 6020	Copper	2.1	ug/L	1.0	05/22/24 05:00	
EPA 903.1	Radium-226	0.477 ± 0.722 (1.24) C:NA T:92%	pCi/L		06/04/24 15:17	
EPA 904.0	Radium-228	1.01 ± 0.472 (0.790) C:79% T:84%	pCi/L		05/31/24 14:31	
Total Radium Calculation	Total Radium	1.49 ± 1.19 (2.03)	pCi/L		06/05/24 11:48	
SM 2540C	Total Dissolved Solids	2180	mg/L	20.0	05/15/24 12:28	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372953

Sample: MW-4C **Lab ID: 50372953001** Collected: 05/12/24 12:40 Received: 05/13/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**43.5**	mg/L	2.5	0.67	10		05/24/24 01:37	16887-00-6	
Fluoride	**0.24**	mg/L	0.10	0.017	1		05/24/24 01:19	16984-48-8	
Sulfate	**1440**	mg/L	25.0	19.0	100		05/24/24 01:54	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**3940**	ug/L	100	11.4	1	05/20/24 21:57	05/21/24 14:29	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	05/20/24 21:57	05/21/24 14:29	7440-43-9	
Calcium	**574000**	ug/L	5000	284	5	05/20/24 21:57	05/21/24 15:37	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	05/20/24 21:57	05/21/24 14:29	7440-47-3	
Iron	ND	ug/L	100	18.1	1	05/20/24 21:57	05/21/24 14:29	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	05/20/24 21:57	05/21/24 14:29	7439-92-1	
Lithium	**366**	ug/L	20.0	5.1	1	05/20/24 21:57	05/21/24 14:29	7439-93-2	
Manganese	**2650**	ug/L	10.0	1.1	1	05/20/24 21:57	05/21/24 14:29	7439-96-5	
Molybdenum	ND	ug/L	10.0	1.1	1	05/20/24 21:57	05/21/24 14:29	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	05/17/24 09:45	05/22/24 04:48	7440-36-0	
Arsenic	ND	ug/L	1.0	0.10	1	05/17/24 09:45	05/22/24 04:48	7440-38-2	
Barium	**27.5**	ug/L	1.0	0.062	1	05/17/24 09:45	05/22/24 04:48	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	05/17/24 09:45	05/22/24 04:48	7440-41-7	
Cobalt	**1.2**	ug/L	1.0	0.060	1	05/17/24 09:45	05/22/24 04:48	7440-48-4	
Copper	**3.3**	ug/L	1.0	0.66	1	05/17/24 09:45	05/22/24 04:48	7440-50-8	
Selenium	ND	ug/L	1.0	0.36	1	05/17/24 09:45	05/22/24 04:48	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	05/17/24 09:45	05/22/24 04:48	7440-28-0	
Zinc	ND	ug/L	3.0	1.3	1	05/17/24 09:45	05/22/24 04:48	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	05/22/24 18:05	05/23/24 10:30	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2420**	mg/L	40.0	40.0	1		05/15/24 12:27		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372953

Sample: Field Blank **Lab ID: 50372953002** Collected: 05/12/24 08:00 Received: 05/13/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	ND	mg/L	0.25	0.067	1		05/24/24 02:12	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/24/24 02:12	16984-48-8	
Sulfate	ND	mg/L	0.25	0.19	1		05/24/24 02:12	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	ND	ug/L	100	11.4	1	05/20/24 21:57	05/21/24 14:42	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	05/20/24 21:57	05/21/24 14:42	7440-43-9	
Calcium	ND	ug/L	1000	56.7	1	05/20/24 21:57	05/21/24 14:42	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	05/20/24 21:57	05/21/24 14:42	7440-47-3	
Iron	ND	ug/L	100	18.1	1	05/20/24 21:57	05/21/24 14:42	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	05/20/24 21:57	05/21/24 14:42	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	05/20/24 21:57	05/21/24 14:42	7439-93-2	
Manganese	ND	ug/L	10.0	1.1	1	05/20/24 21:57	05/21/24 14:42	7439-96-5	
Molybdenum	ND	ug/L	10.0	1.1	1	05/20/24 21:57	05/21/24 14:42	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	05/17/24 09:45	05/22/24 04:52	7440-36-0	
Arsenic	ND	ug/L	1.0	0.10	1	05/17/24 09:45	05/22/24 04:52	7440-38-2	
Barium	ND	ug/L	1.0	0.062	1	05/17/24 09:45	05/22/24 04:52	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	05/17/24 09:45	05/22/24 04:52	7440-41-7	
Cobalt	ND	ug/L	1.0	0.060	1	05/17/24 09:45	05/22/24 04:52	7440-48-4	
Copper	ND	ug/L	1.0	0.66	1	05/17/24 09:45	05/22/24 04:52	7440-50-8	
Selenium	ND	ug/L	1.0	0.36	1	05/17/24 09:45	05/22/24 04:52	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	05/17/24 09:45	05/22/24 04:52	7440-28-0	
Zinc	ND	ug/L	3.0	1.3	1	05/17/24 09:45	05/22/24 04:52	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	05/22/24 18:05	05/23/24 10:32	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		05/15/24 12:27		PL

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372953

Sample: MW-3 **Lab ID: 50372953003** Collected: 05/12/24 14:15 Received: 05/13/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**52.7**	mg/L	2.5	0.67	10		05/24/24 02:47	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/24/24 02:29	16984-48-8	
Sulfate	**1250**	mg/L	25.0	19.0	100		05/24/24 03:04	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**842**	ug/L	100	11.4	1	05/20/24 21:57	05/21/24 14:44	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	05/20/24 21:57	05/21/24 14:44	7440-43-9	
Calcium	**390000**	ug/L	5000	284	5	05/20/24 21:57	05/21/24 15:47	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	05/20/24 21:57	05/21/24 14:44	7440-47-3	
Iron	ND	ug/L	100	18.1	1	05/20/24 21:57	05/21/24 14:44	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	05/20/24 21:57	05/21/24 14:44	7439-92-1	
Lithium	**1600**	ug/L	20.0	5.1	1	05/20/24 21:57	05/21/24 14:44	7439-93-2	
Manganese	**2140**	ug/L	10.0	1.1	1	05/20/24 21:57	05/21/24 14:44	7439-96-5	
Molybdenum	**414**	ug/L	10.0	1.1	1	05/20/24 21:57	05/21/24 14:44	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	**2.4**	ug/L	1.0	0.26	1	05/17/24 09:45	05/22/24 04:56	7440-36-0	
Arsenic	**263**	ug/L	2.0	0.20	2	05/17/24 09:45	05/23/24 08:26	7440-38-2	
Barium	**72.9**	ug/L	1.0	0.062	1	05/17/24 09:45	05/22/24 04:56	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	05/17/24 09:45	05/22/24 04:56	7440-41-7	
Cobalt	**1.9**	ug/L	1.0	0.060	1	05/17/24 09:45	05/22/24 04:56	7440-48-4	
Copper	**2.0**	ug/L	1.0	0.66	1	05/17/24 09:45	05/22/24 04:56	7440-50-8	
Selenium	ND	ug/L	1.0	0.36	1	05/17/24 09:45	05/22/24 04:56	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	05/17/24 09:45	05/22/24 04:56	7440-28-0	
Zinc	ND	ug/L	3.0	1.3	1	05/17/24 09:45	05/22/24 04:56	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	05/22/24 18:05	05/23/24 10:35	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2120**	mg/L	40.0	40.0	1		05/15/24 12:28		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372953

Sample: DUP-1 **Lab ID: 50372953004** Collected: 05/12/24 08:00 Received: 05/13/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056								
	Pace Analytical Services - Indianapolis								
Chloride	**52.8**	mg/L	2.5	0.67	10		05/24/24 04:14	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/24/24 03:56	16984-48-8	
Sulfate	**1320**	mg/L	25.0	19.0	100		05/24/24 04:31	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Boron	**882**	ug/L	100	11.4	1	05/20/24 21:57	05/21/24 14:46	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	05/20/24 21:57	05/21/24 14:46	7440-43-9	
Calcium	**404000**	ug/L	5000	284	5	05/20/24 21:57	05/21/24 15:48	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	05/20/24 21:57	05/21/24 14:46	7440-47-3	
Iron	ND	ug/L	100	18.1	1	05/20/24 21:57	05/21/24 14:46	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	05/20/24 21:57	05/21/24 14:46	7439-92-1	
Lithium	**1690**	ug/L	20.0	5.1	1	05/20/24 21:57	05/21/24 14:46	7439-93-2	
Manganese	**2220**	ug/L	10.0	1.1	1	05/20/24 21:57	05/21/24 14:46	7439-96-5	
Molybdenum	**429**	ug/L	10.0	1.1	1	05/20/24 21:57	05/21/24 14:46	7439-98-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Antimony	**2.4**	ug/L	1.0	0.26	1	05/17/24 09:45	05/22/24 05:00	7440-36-0	
Arsenic	**257**	ug/L	2.0	0.20	2	05/17/24 09:45	05/23/24 08:30	7440-38-2	
Barium	**72.4**	ug/L	1.0	0.062	1	05/17/24 09:45	05/22/24 05:00	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	05/17/24 09:45	05/22/24 05:00	7440-41-7	
Cobalt	**1.9**	ug/L	1.0	0.060	1	05/17/24 09:45	05/22/24 05:00	7440-48-4	
Copper	**2.1**	ug/L	1.0	0.66	1	05/17/24 09:45	05/22/24 05:00	7440-50-8	
Selenium	ND	ug/L	1.0	0.36	1	05/17/24 09:45	05/22/24 05:00	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	05/17/24 09:45	05/22/24 05:00	7440-28-0	
Zinc	ND	ug/L	3.0	1.3	1	05/17/24 09:45	05/22/24 05:00	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
	Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	05/22/24 18:05	05/23/24 10:37	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
	Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2180**	mg/L	20.0	20.0	1		05/15/24 12:28		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372953

QC Batch: 791634
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372953001, 50372953002, 50372953003, 50372953004

METHOD BLANK: 3622402 Matrix: Water
Associated Lab Samples: 50372953001, 50372953002, 50372953003, 50372953004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/23/24 17:54	
Fluoride	mg/L	ND	0.10	0.017	05/23/24 17:54	
Sulfate	mg/L	ND	0.25	0.19	05/23/24 17:54	

LABORATORY CONTROL SAMPLE: 3622403

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	94	80-120	
Fluoride	mg/L	1	0.96	96	80-120	
Sulfate	mg/L	5	4.7	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3622404 3622405

Parameter	Units	50372949001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	44.3	25	25	69.0	69.3	99	100	80-120	0	15	
Fluoride	mg/L	0.23	1	1	1.2	1.2	101	94	80-120	6	15	
Sulfate	mg/L	1340	500	500	1900	1740	114	81	80-120	9	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372953

QC Batch: 791142
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372953001, 50372953002, 50372953003, 50372953004

METHOD BLANK: 3620139 Matrix: Water
Associated Lab Samples: 50372953001, 50372953002, 50372953003, 50372953004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	05/23/24 09:29	

LABORATORY CONTROL SAMPLE: 3620140

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.1	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3620141 3620142

Parameter	Units	50372871008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.6	4.8	92	95	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372953

QC Batch: 789982
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372953001, 50372953002, 50372953003, 50372953004

METHOD BLANK: 3614593 Matrix: Water
Associated Lab Samples: 50372953001, 50372953002, 50372953003, 50372953004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	11.4	05/21/24 14:26	
Cadmium	ug/L	ND	2.0	0.74	05/21/24 14:26	
Calcium	ug/L	ND	1000	56.7	05/21/24 14:26	
Chromium	ug/L	ND	10.0	1.4	05/21/24 14:26	
Iron	ug/L	ND	100	18.1	05/21/24 14:26	
Lead	ug/L	ND	10.0	4.0	05/21/24 14:26	
Lithium	ug/L	ND	20.0	5.1	05/21/24 14:26	
Manganese	ug/L	ND	10.0	1.1	05/21/24 14:26	
Molybdenum	ug/L	ND	10.0	1.1	05/21/24 14:26	

LABORATORY CONTROL SAMPLE: 3614594

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	941	94	80-120	
Cadmium	ug/L	1000	937	94	80-120	
Calcium	ug/L	10000	10100	101	80-120	
Chromium	ug/L	1000	963	96	80-120	
Iron	ug/L	10000	9580	96	80-120	
Lead	ug/L	1000	936	94	80-120	
Lithium	ug/L	1000	978	98	80-120	
Manganese	ug/L	1000	986	99	80-120	
Molybdenum	ug/L	1000	982	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614595 3614596

Parameter	Units	50372953001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	3940	1000	1000	4830	4750	89	81	75-125	2	20	
Cadmium	ug/L	ND	1000	1000	978	941	98	94	75-125	4	20	
Calcium	ug/L	574000	10000	10000	595000	563000	206	-110	75-125	5	20	P6
Chromium	ug/L	ND	1000	1000	986	937	99	94	75-125	5	20	
Iron	ug/L	ND	10000	10000	9510	9140	95	91	75-125	4	20	
Lead	ug/L	ND	1000	1000	904	867	90	87	75-125	4	20	
Lithium	ug/L	366	1000	1000	1380	1310	101	94	75-125	5	20	
Manganese	ug/L	2650	1000	1000	3610	3450	96	80	75-125	5	20	
Molybdenum	ug/L	ND	1000	1000	1050	990	104	98	75-125	6	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372953

QC Batch: 790475
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372953001, 50372953002, 50372953003, 50372953004

METHOD BLANK: 3617156 Matrix: Water
Associated Lab Samples: 50372953001, 50372953002, 50372953003, 50372953004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.26	05/22/24 04:32	
Arsenic	ug/L	ND	1.0	0.10	05/22/24 04:32	
Barium	ug/L	ND	1.0	0.062	05/22/24 04:32	
Beryllium	ug/L	ND	0.20	0.020	05/22/24 04:32	
Cobalt	ug/L	ND	1.0	0.060	05/22/24 04:32	
Copper	ug/L	ND	1.0	0.66	05/22/24 04:32	
Selenium	ug/L	ND	1.0	0.36	05/22/24 04:32	
Thallium	ug/L	ND	1.0	0.079	05/22/24 04:32	
Zinc	ug/L	ND	3.0	1.3	05/22/24 04:32	

LABORATORY CONTROL SAMPLE: 3617157

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	44.2	110	80-120	
Arsenic	ug/L	40	41.7	104	80-120	
Barium	ug/L	40	40.1	100	80-120	
Beryllium	ug/L	40	39.0	98	80-120	
Cobalt	ug/L	40	41.4	103	80-120	
Copper	ug/L	40	38.3	96	80-120	
Selenium	ug/L	40	37.4	94	80-120	
Thallium	ug/L	40	40.3	101	80-120	
Zinc	ug/L	40	40.3	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3617158 3617159

Parameter	Units	50372570005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	43.5	43.3	109	108	75-125	0	20	
Arsenic	ug/L	ND	40	40	40.3	40.2	101	100	75-125	0	20	
Barium	ug/L	0.12 mg/L	40	40	159	159	97	97	75-125	0	20	
Beryllium	ug/L	ND	40	40	38.9	38.3	97	96	75-125	2	20	
Cobalt	ug/L	ND	40	40	38.7	38.4	96	95	75-125	1	20	
Copper	ug/L	ND	40	40	35.6	35.3	87	86	75-125	1	20	
Selenium	ug/L	ND	40	40	38.8	40.3	97	100	75-125	4	20	
Thallium	ug/L	ND	40	40	40.8	40.6	102	101	75-125	1	20	
Zinc	ug/L	ND	40	40	37.5	37.0	91	90	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372953

QC Batch: 790012 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372953001, 50372953002, 50372953003, 50372953004

METHOD BLANK: 3614686 Matrix: Water
Associated Lab Samples: 50372953001, 50372953002, 50372953003, 50372953004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/15/24 12:26	

LABORATORY CONTROL SAMPLE: 3614687

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	280	93	80-120	

SAMPLE DUPLICATE: 3614688

Parameter	Units	50372949003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2080	2040	2	10	

SAMPLE DUPLICATE: 3614689

Parameter	Units	50372995007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2150	2110	2	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372953

Sample: MW-4C **Lab ID: 50372953001** Collected: 05/12/24 12:40 Received: 05/13/24 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.115 ± 0.452 (0.866) C:NA T:91%**	pCi/L	06/04/24 15:17	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.431 ± 0.424 (0.874) C:82% T:81%**	pCi/L	05/31/24 14:16	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.546 ± 0.876 (1.74)**	pCi/L	06/05/24 11:48	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372953

Sample: Field Blank **Lab ID: 50372953002** Collected: 05/12/24 08:00 Received: 05/13/24 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.250 ± 0.460 (1.04) C:NA T:92%**	pCi/L	06/04/24 15:17	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**-0.0631 ± 0.283 (0.685) C:80% T:85%**	pCi/L	05/31/24 14:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.000 ± 0.743 (1.73)**	pCi/L	06/05/24 11:48	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372953

Sample: MW-3 **Lab ID: 50372953003** Collected: 05/12/24 14:15 Received: 05/13/24 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.530 ± 0.686 (1.15) C:NA T:88%**	pCi/L	06/04/24 15:17	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.967 ± 0.462 (0.771) C:75% T:85%**	pCi/L	05/31/24 14:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.50 ± 1.15 (1.92)**	pCi/L	06/05/24 11:48	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372953

Sample: DUP-1 **Lab ID: 50372953004** Collected: 05/12/24 08:00 Received: 05/13/24 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.477 ± 0.722 (1.24) C:NA T:92%**	pCi/L	06/04/24 15:17	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.01 ± 0.472 (0.790) C:79% T:84%**	pCi/L	05/31/24 14:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.49 ± 1.19 (2.03)**	pCi/L	06/05/24 11:48	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372953

QC Batch: 668772
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372953001, 50372953002, 50372953003, 50372953004

METHOD BLANK: 3256730 Matrix: Water
Associated Lab Samples: 50372953001, 50372953002, 50372953003, 50372953004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.176 ± 0.274 (0.475) C:NA T:97%	pCi/L	06/04/24 15:17	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372953

QC Batch: 668773
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50372953001, 50372953002, 50372953003, 50372953004

METHOD BLANK: 3256731 Matrix: Water
Associated Lab Samples: 50372953001, 50372953002, 50372953003, 50372953004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.347 ± 0.373 (0.774) C:73% T:82%	pCi/L	05/31/24 14:16	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372953

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
PL	The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P1R1
Pace Project No.: 50372953

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50372953001	**MW-4C**	EPA 9056	791634		
50372953002	**Field Blank**	EPA 9056	791634		
50372953003	**MW-3**	EPA 9056	791634		
50372953004	**DUP-1**	EPA 9056	791634		
50372953001	**MW-4C**	EPA 3010	789982	EPA 6010	791135
50372953002	**Field Blank**	EPA 3010	789982	EPA 6010	791135
50372953003	**MW-3**	EPA 3010	789982	EPA 6010	791135
50372953004	**DUP-1**	EPA 3010	789982	EPA 6010	791135
50372953001	**MW-4C**	EPA 200.2	790475	EPA 6020	790702
50372953002	**Field Blank**	EPA 200.2	790475	EPA 6020	790702
50372953003	**MW-3**	EPA 200.2	790475	EPA 6020	790702
50372953004	**DUP-1**	EPA 200.2	790475	EPA 6020	790702
50372953001	**MW-4C**	EPA 7470	791142	EPA 7470	791577
50372953002	**Field Blank**	EPA 7470	791142	EPA 7470	791577
50372953003	**MW-3**	EPA 7470	791142	EPA 7470	791577
50372953004	**DUP-1**	EPA 7470	791142	EPA 7470	791577
50372953001	**MW-4C**	EPA 903.1	668772		
50372953002	**Field Blank**	EPA 903.1	668772		
50372953003	**MW-3**	EPA 903.1	668772		
50372953004	**DUP-1**	EPA 903.1	668772		
50372953001	**MW-4C**	EPA 904.0	668773		
50372953002	**Field Blank**	EPA 904.0	668773		
50372953003	**MW-3**	EPA 904.0	668773		
50372953004	**DUP-1**	EPA 904.0	668773		
50372953001	**MW-4C**	Total Radium Calculation	673404		
50372953002	**Field Blank**	Total Radium Calculation	673404		
50372953003	**MW-3**	Total Radium Calculation	673404		
50372953004	**DUP-1**	Total Radium Calculation	673404		
50372953001	**MW-4C**	SM 2540C	790012		
50372953002	**Field Blank**	SM 2540C	790012		
50372953003	**MW-3**	SM 2540C	790012		
50372953004	**DUP-1**	SM 2540C	790012		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO# : 50372953

50372953

Pace Analytical
WWW.PACELABS.COM

AIN-OF-CUSTODY / Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A — Required Client Information:

Company:	Atlas Indianapolis
Address:	7988 Centerpoint Drive Suite 100
	Indianapolis, IN 46256
Email:	mark.breting@oneatlas.com
Phone:	(317)579-4082 Fax:
Requested Due Date:	

Report To:	Mark Breting
Copy To:	
Purchase Order #:	
Project Name:	Petersburg May 2024 P1R1
Project #:	

Section C — Invoice Information:

Attention:	Accounts Payable - Paula Sedam
Company Name:	Atlas Indianapolis
Address:	
Pace Quote:	
Pace Project Manager:	Will Statz
Pace Profile #:	10498/58

Regulatory Agency: | State / Location: IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	Metals by 6010/6020/7470	Cl, F, SO4 by 9056	TDS by 2540C	Rad-226/228 + Sum	Residual Chlorine (Y/N)	
1	MW-4C			5/12/24	1240				5	X		X							X	X	X	X		001
2	Field Blank			5/12/24					5	X		X							X	X	X	X		002
3	MW-3			5/12/24	1415				5	X		X							X	X	X	X		003
4	DUP-1			5/12/24					5	X		X							X	X	X	X		004
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Metals* 6010: B, Cd, Cr, Fe, Pb, Mn, Mo, Ca, Li (9)	Josh O'Brian	5/13/24	7:00	Jay Williams	5/13/24	7:00
6020: Be, Co, Cu, Zn, As, Se, Sb, Ba, Tl (9) 7470 Hg	Jay Williams	5/13/24	9:45	Shannon	5/13/24	0945
Rad to Pace PA						

SAMPLE CONDITIONS			
TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
2.7	Y	Y	Y
2.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Josh O'Brian

SIGNATURE of SAMPLER: Josh O'B

DATE Signed: 5-12-24

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 5/13/24 1120 IL

1. **Courier:** ☐FED EX | UPS ☑CLIENT ☐PACE ☐NOW/JETT | OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H

4. **Cooler Temperature(s):** 2.9/2.7 | 2.2/2.0 | | |
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☑Bubble Wrap | ☐Bubble Bags | ☐None | ☐Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **Was the PM notified of out of temp cooler?:** ☐Yes ☐No
Cooler temp should be above freezing to 6°C

8. **EZ Bottle Order?** | Yes | No

If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE \ of \

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																2		2	1									WT	✓			
2																													✓			
3																													✓			
4																													✓			
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

July 24, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 14, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis
7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50373016001	**MW-37B**	Water	05/13/24 11:10	05/14/24 10:00
50373016002	**MW-37I**	Water	05/13/24 12:50	05/14/24 10:00
50373016003	**MW-37A**	Water	05/13/24 14:15	05/14/24 10:00
50373016004	**DUP-8**	Water	05/13/24 08:00	05/14/24 10:00
50373016005	**MW-40I**	Water	05/13/24 15:35	05/14/24 10:00
50373016006	**DUP-10**	Water	05/13/24 08:00	05/14/24 10:00

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50373016001	**MW-37B**	EPA 9056	KBB	3	PASI-I
		EPA 6010	NWB	11	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	JTR	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50373016002	**MW-37I**	EPA 9056	KBB	3	PASI-I
		EPA 6010	NWB	11	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	JTR	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50373016003	**MW-37A**	EPA 9056	KBB	3	PASI-I
		EPA 6010	NWB	11	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	CAW	1	PASI-I

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	JTR	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50373016004	**DUP-8**	EPA 9056	KBB	3	PASI-I
		EPA 6010	NWB	11	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	JTR	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50373016005	**MW-40I**	EPA 9056	KBB	3	PASI-I
		EPA 6010	NWB	11	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	JTR	3	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50373016006	**DUP-10**	EPA 9056	KBB	3	PASI-I
		EPA 6010	NWB	11	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	JTR	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50373016001	**MW-37B**					
EPA 9056	Chloride	18.5	mg/L	0.25	05/25/24 01:08	
EPA 9056	Sulfate	514	mg/L	25.0	05/29/24 10:55	
EPA 6010	Boron	3810	ug/L	100	05/21/24 15:10	
EPA 6010	Calcium	261000	ug/L	2000	05/21/24 16:00	
EPA 6010	Magnesium	36800	ug/L	1000	05/21/24 15:10	
EPA 6010	Potassium	1320	ug/L	1000	05/21/24 15:10	
EPA 6010	Sodium	19900	ug/L	1000	05/21/24 15:10	
EPA 6010	Boron, Dissolved	3490	ug/L	100	05/21/24 23:19	
EPA 6010	Magnesium, Dissolved	37000	ug/L	1000	05/21/24 23:19	
EPA 6010	Potassium, Dissolved	1180	ug/L	1000	05/21/24 23:19	
EPA 6020	Barium	47.4	ug/L	1.0	05/21/24 07:50	
EPA 6020	Manganese	404	ug/L	4.0	05/22/24 10:34	
EPA 6020	Selenium	1.3	ug/L	1.0	05/21/24 07:50	
EPA 903.1	Radium-226	0.0720 ± 0.373 (0.775) C:NA T:80%	pCi/L		06/05/24 15:11	
EPA 904.0	Radium-228	0.450 ± 0.351 (0.690) C:78% T:91%	pCi/L		05/31/24 15:49	
Total Radium Calculation	Total Radium	0.522 ± 0.724 (1.47)	pCi/L		06/05/24 17:05	
SM 2320B	Alkalinity, Total as CaCO3	316	mg/L	10.0	05/17/24 15:12	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	316	mg/L	10.0	05/17/24 15:12	
SM 2540C	Total Dissolved Solids	990	mg/L	20.0	05/16/24 10:53	
SM 4500-H+B	pH at 25 Degrees C	7.0	Std. Units	0.10	05/22/24 13:43	H3
EPA 353.2	Nitrogen, Nitrate	3.1	mg/L	0.10	05/14/24 23:15	
SM 5310C	Dissolved Organic Carbon	2.3	mg/L	1.0	05/25/24 13:00	
50373016002	**MW-37I**					
EPA 9056	Chloride	43.7	mg/L	2.5	05/25/24 03:45	
EPA 9056	Sulfate	1350	mg/L	25.0	05/25/24 04:02	
EPA 6010	Boron	11000	ug/L	100	05/21/24 15:12	
EPA 6010	Calcium	576000	ug/L	5000	05/21/24 16:05	
EPA 6010	Iron	7790	ug/L	100	05/21/24 15:12	
EPA 6010	Magnesium	27600	ug/L	1000	05/21/24 15:12	
EPA 6010	Molybdenum	221	ug/L	10.0	05/21/24 15:12	
EPA 6010	Potassium	6610	ug/L	1000	05/21/24 15:12	
EPA 6010	Sodium	56900	ug/L	1000	05/21/24 15:12	
EPA 6010	Boron, Dissolved	10800	ug/L	100	05/21/24 23:21	
EPA 6010	Magnesium, Dissolved	27100	ug/L	1000	05/21/24 23:21	
EPA 6010	Molybdenum, Dissolved	213	ug/L	10.0	05/21/24 23:21	
EPA 6010	Potassium, Dissolved	6620	ug/L	1000	05/21/24 23:21	
EPA 6020	Barium	30.8	ug/L	1.0	05/21/24 07:53	
EPA 6020	Manganese	2700	ug/L	25.0	05/22/24 10:38	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50373016002	**MW-37I**					
EPA 903.1	Radium-226	0.118 ± 0.327 (0.635) C:NA T:88%	pCi/L		06/05/24 15:11	
EPA 904.0	Radium-228	0.379 ± 0.398 (0.827) C:81% T:82%	pCi/L		05/31/24 15:49	
Total Radium Calculation	Total Radium	0.497 ± 0.725 (1.46)	pCi/L		06/05/24 17:05	
SM 2320B	Alkalinity, Total as CaCO3	183	mg/L	10.0	05/17/24 15:12	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	183	mg/L	10.0	05/17/24 15:12	
SM 2540C	Total Dissolved Solids	2330	mg/L	20.0	05/16/24 10:54	
SM 4500-H+B	pH at 25 Degrees C	6.7	Std. Units	0.10	05/22/24 13:44	H3
EPA 365.1	Phosphate as P04	0.26	mg/L	0.15	05/30/24 13:08	
SM 5310C	Dissolved Organic Carbon	2.2	mg/L	1.0	05/25/24 13:26	
50373016003	**MW-37A**					
EPA 9056	Chloride	49.4	mg/L	2.5	05/25/24 04:37	
EPA 9056	Sulfate	1730	mg/L	25.0	05/25/24 04:55	
EPA 6010	Boron	12100	ug/L	100	05/21/24 15:14	
EPA 6010	Calcium	603000	ug/L	5000	05/21/24 16:07	
EPA 6010	Iron	11900	ug/L	100	05/21/24 15:14	
EPA 6010	Magnesium	39200	ug/L	1000	05/21/24 15:14	
EPA 6010	Molybdenum	418	ug/L	10.0	05/21/24 15:14	
EPA 6010	Potassium	2200	ug/L	1000	05/21/24 15:14	
EPA 6010	Sodium	74000	ug/L	1000	05/21/24 15:14	
EPA 6010	Boron, Dissolved	12200	ug/L	100	05/21/24 23:23	
EPA 6010	Magnesium, Dissolved	39400	ug/L	1000	05/21/24 23:23	
EPA 6010	Molybdenum, Dissolved	416	ug/L	10.0	05/21/24 23:23	
EPA 6010	Potassium, Dissolved	2070	ug/L	1000	05/21/24 23:23	
EPA 6020	Barium	24.8	ug/L	1.0	05/21/24 08:04	
EPA 6020	Manganese	1860	ug/L	20.0	05/22/24 10:41	
EPA 903.1	Radium-226	0.186 ± 0.558 (1.03) C:NA T:92%	pCi/L		06/05/24 15:11	
EPA 904.0	Radium-228	0.00108 ± 0.296 (0.694) C:79% T:87%	pCi/L		05/31/24 15:49	
Total Radium Calculation	Total Radium	0.187 ± 0.854 (1.72)	pCi/L		06/05/24 17:05	
SM 2320B	Alkalinity, Total as CaCO3	105	mg/L	10.0	05/17/24 15:12	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	105	mg/L	10.0	05/17/24 15:12	
SM 2540C	Total Dissolved Solids	2550	mg/L	40.0	05/16/24 10:54	
SM 4500-H+B	pH at 25 Degrees C	6.7	Std. Units	0.10	05/22/24 13:45	H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50373016003	**MW-37A**					
EPA 365.1	Phosphate as P04	0.34	mg/L	0.15	05/30/24 13:08	
SM 5310C	Dissolved Organic Carbon	1.5	mg/L	1.0	05/25/24 13:45	
50373016004	**DUP-8**					
EPA 9056	Chloride	49.6	mg/L	2.5	05/25/24 05:29	
EPA 9056	Sulfate	1740	mg/L	25.0	05/25/24 05:47	
EPA 6010	Boron	12000	ug/L	100	05/21/24 15:15	
EPA 6010	Calcium	598000	ug/L	5000	05/21/24 16:09	
EPA 6010	Iron	11600	ug/L	100	05/21/24 15:15	
EPA 6010	Magnesium	38600	ug/L	1000	05/21/24 15:15	
EPA 6010	Molybdenum	416	ug/L	10.0	05/21/24 15:15	
EPA 6010	Potassium	2230	ug/L	1000	05/21/24 15:15	
EPA 6010	Sodium	74400	ug/L	1000	05/21/24 15:15	
EPA 6010	Boron, Dissolved	11900	ug/L	100	05/21/24 23:24	
EPA 6010	Magnesium, Dissolved	38300	ug/L	1000	05/21/24 23:24	
EPA 6010	Molybdenum, Dissolved	410	ug/L	10.0	05/21/24 23:24	
EPA 6010	Potassium, Dissolved	2120	ug/L	1000	05/21/24 23:24	
EPA 6020	Barium	24.5	ug/L	1.0	05/21/24 08:07	
EPA 6020	Manganese	1890	ug/L	20.0	05/22/24 10:52	
EPA 903.1	Radium-226	0.268 ± 0.457 (0.806) C:NA T:94%	pCi/L		06/05/24 15:11	
EPA 904.0	Radium-228	0.839 ± 0.396 (0.651) C:79% T:88%	pCi/L		05/31/24 15:51	
Total Radium Calculation	Total Radium	1.11 ± 0.853 (1.46)	pCi/L		06/05/24 17:05	
SM 2320B	Alkalinity, Total as CaCO3	105	mg/L	10.0	05/17/24 15:12	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	105	mg/L	10.0	05/17/24 15:12	
SM 2540C	Total Dissolved Solids	2530	mg/L	40.0	05/16/24 10:55	
SM 4500-H+B	pH at 25 Degrees C	6.8	Std. Units	0.10	05/22/24 13:46	H3
EPA 365.1	Phosphate as P04	0.33	mg/L	0.15	05/30/24 13:10	
SM 5310C	Dissolved Organic Carbon	2.5	mg/L	1.0	05/25/24 14:05	
50373016005	**MW-40I**					
EPA 9056	Chloride	121	mg/L	2.5	05/25/24 06:56	
EPA 9056	Sulfate	1530	mg/L	25.0	05/25/24 07:14	
EPA 6010	Boron	20200	ug/L	100	05/21/24 15:17	
EPA 6010	Calcium	526000	ug/L	5000	05/21/24 16:11	
EPA 6010	Iron	10100	ug/L	100	05/21/24 15:17	
EPA 6010	Magnesium	66900	ug/L	1000	05/21/24 15:17	
EPA 6010	Molybdenum	150	ug/L	10.0	05/21/24 15:17	
EPA 6010	Potassium	12100	ug/L	1000	05/21/24 15:17	
EPA 6010	Sodium	50500	ug/L	1000	05/21/24 15:17	
EPA 6010	Boron, Dissolved	20900	ug/L	100	05/21/24 23:26	
EPA 6010	Magnesium, Dissolved	68900	ug/L	1000	05/21/24 23:26	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50373016005	**MW-40I**					
EPA 6010	Molybdenum, Dissolved	156	ug/L	10.0	05/21/24 23:26	
EPA 6010	Potassium, Dissolved	12300	ug/L	1000	05/21/24 23:26	
EPA 6020	Arsenic	1.0	ug/L	1.0	05/28/24 03:03	
EPA 6020	Barium	22.6	ug/L	1.0	05/21/24 08:10	
EPA 6020	Manganese	2020	ug/L	20.0	05/22/24 10:55	
EPA 903.1	Radium-226	0.660 ± 0.842 (1.41) C:NA T:97%	pCi/L		06/05/24 15:11	
EPA 904.0	Radium-228	1.22 ± 0.430 (0.603) C:86% T:90%	pCi/L		05/29/24 12:18	
Total Radium Calculation	Total Radium	1.88 ± 1.27 (2.01)	pCi/L		06/05/24 17:05	
SM 2320B	Alkalinity, Total as CaCO3	138	mg/L	10.0	05/17/24 15:12	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	138	mg/L	10.0	05/17/24 15:12	
SM 2540C	Total Dissolved Solids	2380	mg/L	40.0	05/16/24 10:55	
SM 4500-H+B	pH at 25 Degrees C	6.8	Std. Units	0.10	05/22/24 13:47	H3
EPA 365.1	Phosphate as P04	0.31	mg/L	0.15	05/30/24 13:12	
SM 5310C	Dissolved Organic Carbon	1.6	mg/L	1.0	05/25/24 14:25	
50373016006	**DUP-10**					
EPA 9056	Chloride	122	mg/L	2.5	05/25/24 07:49	
EPA 9056	Sulfate	1560	mg/L	25.0	05/25/24 08:06	
EPA 6010	Boron	20700	ug/L	100	05/21/24 15:19	
EPA 6010	Calcium	543000	ug/L	5000	05/21/24 16:12	
EPA 6010	Iron	10500	ug/L	100	05/21/24 15:19	
EPA 6010	Magnesium	68600	ug/L	1000	05/21/24 15:19	
EPA 6010	Molybdenum	156	ug/L	10.0	05/21/24 15:19	
EPA 6010	Potassium	12600	ug/L	1000	05/21/24 15:19	
EPA 6010	Sodium	51700	ug/L	1000	05/21/24 15:19	
EPA 6010	Boron, Dissolved	20700	ug/L	100	05/21/24 23:28	
EPA 6010	Magnesium, Dissolved	68400	ug/L	1000	05/21/24 23:28	
EPA 6010	Molybdenum, Dissolved	153	ug/L	10.0	05/21/24 23:28	
EPA 6010	Potassium, Dissolved	12300	ug/L	1000	05/21/24 23:28	
EPA 6020	Arsenic	1.1	ug/L	1.0	05/28/24 03:10	
EPA 6020	Barium	22.6	ug/L	1.0	05/21/24 08:14	
EPA 6020	Manganese	2000	ug/L	20.0	05/22/24 10:58	
EPA 903.1	Radium-226	-0.0587 ± 0.415 (0.881) C:NA T:91%	pCi/L		06/05/24 15:25	
EPA 904.0	Radium-228	0.652 ± 0.379 (0.696) C:85% T:83%	pCi/L		06/03/24 12:40	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50373016006	**DUP-10**					
Total Radium Calculation	Total Radium	0.652 ± 0.794 (1.58)	pCi/L		06/06/24 16:14	
SM 2320B	Alkalinity, Total as CaCO3	139	mg/L	10.0	05/17/24 15:12	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	139	mg/L	10.0	05/17/24 15:12	
SM 2540C	Total Dissolved Solids	2430	mg/L	40.0	05/16/24 10:55	
SM 4500-H+B	pH at 25 Degrees C	6.9	Std. Units	0.10	05/22/24 13:49	H3
EPA 365.1	Phosphate as P04	0.24	mg/L	0.15	05/30/24 13:14	
SM 5310C	Dissolved Organic Carbon	1.9	mg/L	1.0	05/25/24 14:45	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Sample: MW-37B **Lab ID: 50373016001** Collected: 05/13/24 11:10 Received: 05/14/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**18.5**	mg/L	0.25	0.067	1		05/25/24 01:08	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/25/24 01:08	16984-48-8	
Sulfate	**514**	mg/L	25.0	19.0	100		05/29/24 10:55	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**3810**	ug/L	100	11.4	1	05/20/24 21:57	05/21/24 15:10	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	05/20/24 21:57	05/21/24 15:10	7440-43-9	
Calcium	**261000**	ug/L	2000	113	2	05/20/24 21:57	05/21/24 16:00	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	05/20/24 21:57	05/21/24 15:10	7440-47-3	
Iron	ND	ug/L	100	18.1	1	05/20/24 21:57	05/21/24 15:10	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	05/20/24 21:57	05/21/24 15:10	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	05/20/24 21:57	05/21/24 15:10	7439-93-2	
Magnesium	**36800**	ug/L	1000	32.8	1	05/20/24 21:57	05/21/24 15:10	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	05/20/24 21:57	05/21/24 15:10	7439-98-7	
Potassium	**1320**	ug/L	1000	120	1	05/20/24 21:57	05/21/24 15:10	7440-09-7	
Sodium	**19900**	ug/L	1000	48.2	1	05/20/24 21:57	05/21/24 15:10	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**3490**	ug/L	100	6.2	1	05/21/24 15:47	05/21/24 23:19	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	05/21/24 15:47	05/21/24 23:19	7439-93-2	
Magnesium, Dissolved	**37000**	ug/L	1000	33.6	1	05/21/24 15:47	05/21/24 23:19	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	05/21/24 15:47	05/21/24 23:19	7439-98-7	
Potassium, Dissolved	**1180**	ug/L	1000	97.8	1	05/21/24 15:47	05/21/24 23:19	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.27	1	05/20/24 15:40	05/21/24 07:50	7440-36-0	
Arsenic	ND	ug/L	1.0	0.11	1	05/20/24 15:40	05/21/24 07:50	7440-38-2	
Barium	**47.4**	ug/L	1.0	0.090	1	05/20/24 15:40	05/21/24 07:50	7440-39-3	
Beryllium	ND	ug/L	0.20	0.030	1	05/20/24 15:40	05/21/24 07:50	7440-41-7	
Cobalt	ND	ug/L	1.0	0.16	1	05/20/24 15:40	05/21/24 07:50	7440-48-4	
Manganese	**404**	ug/L	4.0	1.0	4	05/20/24 15:40	05/22/24 10:34	7439-96-5	
Selenium	**1.3**	ug/L	1.0	0.22	1	05/20/24 15:40	05/21/24 07:50	7782-49-2	
Thallium	ND	ug/L	1.0	0.043	1	05/20/24 15:40	05/21/24 07:50	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/18/24 07:50	05/21/24 03:57	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/24/24 10:50	05/27/24 19:48	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Sample: MW-37B **Lab ID: 50373016001** Collected: 05/13/24 11:10 Received: 05/14/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**316**	mg/L	10.0	10.0	1		05/17/24 15:12		
Alkalinity,Bicarbonate (CaCO3)	**316**	mg/L	10.0	10.0	1		05/17/24 15:12		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/17/24 15:12		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**990**	mg/L	20.0	20.0	1		05/16/24 10:53		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.0**	Std. Units	0.10	0.10	1		05/22/24 13:43		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/16/24 11:36	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**3.1**	mg/L	0.10	0.013	1		05/14/24 23:15	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	05/24/24 13:30	05/30/24 13:07		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.3**	mg/L	1.0	0.25	1		05/25/24 13:00		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Sample: MW-37I **Lab ID: 50373016002** Collected: 05/13/24 12:50 Received: 05/14/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**43.7**	mg/L	2.5	0.67	10		05/25/24 03:45	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/25/24 03:28	16984-48-8	
Sulfate	**1350**	mg/L	25.0	19.0	100		05/25/24 04:02	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**11000**	ug/L	100	11.4	1	05/20/24 21:57	05/21/24 15:12	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	05/20/24 21:57	05/21/24 15:12	7440-43-9	
Calcium	**576000**	ug/L	5000	284	5	05/20/24 21:57	05/21/24 16:05	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	05/20/24 21:57	05/21/24 15:12	7440-47-3	
Iron	**7790**	ug/L	100	18.1	1	05/20/24 21:57	05/21/24 15:12	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	05/20/24 21:57	05/21/24 15:12	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	05/20/24 21:57	05/21/24 15:12	7439-93-2	
Magnesium	**27600**	ug/L	1000	32.8	1	05/20/24 21:57	05/21/24 15:12	7439-95-4	
Molybdenum	**221**	ug/L	10.0	1.1	1	05/20/24 21:57	05/21/24 15:12	7439-98-7	
Potassium	**6610**	ug/L	1000	120	1	05/20/24 21:57	05/21/24 15:12	7440-09-7	
Sodium	**56900**	ug/L	1000	48.2	1	05/20/24 21:57	05/21/24 15:12	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**10800**	ug/L	100	6.2	1	05/21/24 15:47	05/21/24 23:21	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	05/21/24 15:47	05/21/24 23:21	7439-93-2	
Magnesium, Dissolved	**27100**	ug/L	1000	33.6	1	05/21/24 15:47	05/21/24 23:21	7439-95-4	
Molybdenum, Dissolved	**213**	ug/L	10.0	0.78	1	05/21/24 15:47	05/21/24 23:21	7439-98-7	
Potassium, Dissolved	**6620**	ug/L	1000	97.8	1	05/21/24 15:47	05/21/24 23:21	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.27	1	05/20/24 15:40	05/21/24 07:53	7440-36-0	
Arsenic	ND	ug/L	1.0	0.11	1	05/20/24 15:40	05/21/24 07:53	7440-38-2	
Barium	**30.8**	ug/L	1.0	0.090	1	05/20/24 15:40	05/21/24 07:53	7440-39-3	
Beryllium	ND	ug/L	0.20	0.030	1	05/20/24 15:40	05/21/24 07:53	7440-41-7	
Cobalt	ND	ug/L	1.0	0.16	1	05/20/24 15:40	05/21/24 07:53	7440-48-4	
Manganese	**2700**	ug/L	25.0	6.5	25	05/20/24 15:40	05/22/24 10:38	7439-96-5	
Selenium	ND	ug/L	1.0	0.22	1	05/20/24 15:40	05/21/24 07:53	7782-49-2	
Thallium	ND	ug/L	1.0	0.043	1	05/20/24 15:40	05/21/24 07:53	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/18/24 07:50	05/21/24 04:01	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/24/24 10:50	05/27/24 18:47	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Sample: MW-37I **Lab ID: 50373016002** Collected: 05/13/24 12:50 Received: 05/14/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**183**	mg/L	10.0	10.0	1		05/17/24 15:12		
Alkalinity,Bicarbonate (CaCO3)	**183**	mg/L	10.0	10.0	1		05/17/24 15:12		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/17/24 15:12		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2330**	mg/L	20.0	20.0	1		05/16/24 10:54		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.7**	Std. Units	0.10	0.10	1		05/22/24 13:44		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/16/24 11:36	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/14/24 23:30	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.26**	mg/L	0.15	0.13	1	05/24/24 13:30	05/30/24 13:08		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.2**	mg/L	1.0	0.25	1		05/25/24 13:26		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Sample: MW-37A **Lab ID: 50373016003** Collected: 05/13/24 14:15 Received: 05/14/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**49.4**	mg/L	2.5	0.67	10		05/25/24 04:37	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/25/24 04:20	16984-48-8	
Sulfate	**1730**	mg/L	25.0	19.0	100		05/25/24 04:55	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**12100**	ug/L	100	11.4	1	05/20/24 21:57	05/21/24 15:14	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	05/20/24 21:57	05/21/24 15:14	7440-43-9	
Calcium	**603000**	ug/L	5000	284	5	05/20/24 21:57	05/21/24 16:07	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	05/20/24 21:57	05/21/24 15:14	7440-47-3	
Iron	**11900**	ug/L	100	18.1	1	05/20/24 21:57	05/21/24 15:14	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	05/20/24 21:57	05/21/24 15:14	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	05/20/24 21:57	05/21/24 15:14	7439-93-2	
Magnesium	**39200**	ug/L	1000	32.8	1	05/20/24 21:57	05/21/24 15:14	7439-95-4	
Molybdenum	**418**	ug/L	10.0	1.1	1	05/20/24 21:57	05/21/24 15:14	7439-98-7	
Potassium	**2200**	ug/L	1000	120	1	05/20/24 21:57	05/21/24 15:14	7440-09-7	
Sodium	**74000**	ug/L	1000	48.2	1	05/20/24 21:57	05/21/24 15:14	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**12200**	ug/L	100	6.2	1	05/21/24 15:47	05/21/24 23:23	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	05/21/24 15:47	05/21/24 23:23	7439-93-2	
Magnesium, Dissolved	**39400**	ug/L	1000	33.6	1	05/21/24 15:47	05/21/24 23:23	7439-95-4	
Molybdenum, Dissolved	**416**	ug/L	10.0	0.78	1	05/21/24 15:47	05/21/24 23:23	7439-98-7	
Potassium, Dissolved	**2070**	ug/L	1000	97.8	1	05/21/24 15:47	05/21/24 23:23	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.27	1	05/20/24 15:40	05/21/24 08:04	7440-36-0	
Arsenic	ND	ug/L	1.0	0.11	1	05/20/24 15:40	05/22/24 12:34	7440-38-2	
Barium	**24.8**	ug/L	1.0	0.090	1	05/20/24 15:40	05/21/24 08:04	7440-39-3	
Beryllium	ND	ug/L	0.20	0.030	1	05/20/24 15:40	05/28/24 02:36	7440-41-7	
Cobalt	ND	ug/L	1.0	0.16	1	05/20/24 15:40	05/22/24 12:34	7440-48-4	
Manganese	**1860**	ug/L	20.0	5.2	20	05/20/24 15:40	05/22/24 10:41	7439-96-5	
Selenium	ND	ug/L	1.0	0.22	1	05/20/24 15:40	05/22/24 12:34	7782-49-2	
Thallium	ND	ug/L	1.0	0.043	1	05/20/24 15:40	05/21/24 08:04	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/18/24 07:50	05/21/24 04:04	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/24/24 10:50	05/27/24 18:50	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Sample: MW-37A **Lab ID: 50373016003** Collected: 05/13/24 14:15 Received: 05/14/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**105**	mg/L	10.0	10.0	1		05/17/24 15:12		
Alkalinity,Bicarbonate (CaCO3)	**105**	mg/L	10.0	10.0	1		05/17/24 15:12		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/17/24 15:12		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2550**	mg/L	40.0	40.0	1		05/16/24 10:54		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.7**	Std. Units	0.10	0.10	1		05/22/24 13:45		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/16/24 11:36	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/14/24 23:34	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.34**	mg/L	0.15	0.13	1	05/24/24 13:30	05/30/24 13:08		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.5**	mg/L	1.0	0.25	1		05/25/24 13:45		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Sample: DUP-8 **Lab ID: 50373016004** Collected: 05/13/24 08:00 Received: 05/14/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**49.6**	mg/L	2.5	0.67	10		05/25/24 05:29	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/25/24 05:12	16984-48-8	
Sulfate	**1740**	mg/L	25.0	19.0	100		05/25/24 05:47	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**12000**	ug/L	100	11.4	1	05/20/24 21:57	05/21/24 15:15	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	05/20/24 21:57	05/21/24 15:15	7440-43-9	
Calcium	**598000**	ug/L	5000	284	5	05/20/24 21:57	05/21/24 16:09	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	05/20/24 21:57	05/21/24 15:15	7440-47-3	
Iron	**11600**	ug/L	100	18.1	1	05/20/24 21:57	05/21/24 15:15	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	05/20/24 21:57	05/21/24 15:15	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	05/20/24 21:57	05/21/24 15:15	7439-93-2	
Magnesium	**38600**	ug/L	1000	32.8	1	05/20/24 21:57	05/21/24 15:15	7439-95-4	
Molybdenum	**416**	ug/L	10.0	1.1	1	05/20/24 21:57	05/21/24 15:15	7439-98-7	
Potassium	**2230**	ug/L	1000	120	1	05/20/24 21:57	05/21/24 15:15	7440-09-7	
Sodium	**74400**	ug/L	1000	48.2	1	05/20/24 21:57	05/21/24 15:15	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**11900**	ug/L	100	6.2	1	05/21/24 15:47	05/21/24 23:24	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	05/21/24 15:47	05/21/24 23:24	7439-93-2	
Magnesium, Dissolved	**38300**	ug/L	1000	33.6	1	05/21/24 15:47	05/21/24 23:24	7439-95-4	
Molybdenum, Dissolved	**410**	ug/L	10.0	0.78	1	05/21/24 15:47	05/21/24 23:24	7439-98-7	
Potassium, Dissolved	**2120**	ug/L	1000	97.8	1	05/21/24 15:47	05/21/24 23:24	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.27	1	05/20/24 15:40	05/21/24 08:07	7440-36-0	
Arsenic	ND	ug/L	1.0	0.11	1	05/20/24 15:40	05/22/24 12:41	7440-38-2	
Barium	**24.5**	ug/L	1.0	0.090	1	05/20/24 15:40	05/21/24 08:07	7440-39-3	
Beryllium	ND	ug/L	0.20	0.030	1	05/20/24 15:40	05/28/24 02:43	7440-41-7	
Cobalt	ND	ug/L	1.0	0.16	1	05/20/24 15:40	05/22/24 12:41	7440-48-4	
Manganese	**1890**	ug/L	20.0	5.2	20	05/20/24 15:40	05/22/24 10:52	7439-96-5	
Selenium	ND	ug/L	1.0	0.22	1	05/20/24 15:40	05/22/24 12:41	7782-49-2	
Thallium	ND	ug/L	1.0	0.043	1	05/20/24 15:40	05/21/24 08:07	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/18/24 07:50	05/21/24 04:16	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/24/24 10:50	05/27/24 18:57	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Sample: DUP-8 **Lab ID: 50373016004** Collected: 05/13/24 08:00 Received: 05/14/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**105**	mg/L	10.0	10.0	1		05/17/24 15:12		
Alkalinity,Bicarbonate (CaCO3)	**105**	mg/L	10.0	10.0	1		05/17/24 15:12		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/17/24 15:12		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2530**	mg/L	40.0	40.0	1		05/16/24 10:55		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.8**	Std. Units	0.10	0.10	1		05/22/24 13:46		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/16/24 11:36	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/14/24 23:06	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.33**	mg/L	0.15	0.13	1	05/24/24 13:30	05/30/24 13:10		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.5**	mg/L	1.0	0.25	1		05/25/24 14:05		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Sample: MW-40I **Lab ID: 50373016005** Collected: 05/13/24 15:35 Received: 05/14/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**121**	mg/L	2.5	0.67	10		05/25/24 06:56	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/25/24 06:39	16984-48-8	
Sulfate	**1530**	mg/L	25.0	19.0	100		05/25/24 07:14	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**20200**	ug/L	100	11.4	1	05/20/24 21:57	05/21/24 15:17	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	05/20/24 21:57	05/21/24 15:17	7440-43-9	
Calcium	**526000**	ug/L	5000	284	5	05/20/24 21:57	05/21/24 16:11	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	05/20/24 21:57	05/21/24 15:17	7440-47-3	
Iron	**10100**	ug/L	100	18.1	1	05/20/24 21:57	05/21/24 15:17	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	05/20/24 21:57	05/21/24 15:17	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	05/20/24 21:57	05/21/24 15:17	7439-93-2	
Magnesium	**66900**	ug/L	1000	32.8	1	05/20/24 21:57	05/21/24 15:17	7439-95-4	
Molybdenum	**150**	ug/L	10.0	1.1	1	05/20/24 21:57	05/21/24 15:17	7439-98-7	
Potassium	**12100**	ug/L	1000	120	1	05/20/24 21:57	05/21/24 15:17	7440-09-7	
Sodium	**50500**	ug/L	1000	48.2	1	05/20/24 21:57	05/21/24 15:17	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**20900**	ug/L	100	6.2	1	05/21/24 15:47	05/21/24 23:26	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	05/21/24 15:47	05/21/24 23:26	7439-93-2	
Magnesium, Dissolved	**68900**	ug/L	1000	33.6	1	05/21/24 15:47	05/21/24 23:26	7439-95-4	
Molybdenum, Dissolved	**156**	ug/L	10.0	0.78	1	05/21/24 15:47	05/21/24 23:26	7439-98-7	
Potassium, Dissolved	**12300**	ug/L	1000	97.8	1	05/21/24 15:47	05/21/24 23:26	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.27	1	05/20/24 15:40	05/21/24 08:10	7440-36-0	
Arsenic	**1.0**	ug/L	1.0	0.11	1	05/20/24 15:40	05/28/24 03:03	7440-38-2	
Barium	**22.6**	ug/L	1.0	0.090	1	05/20/24 15:40	05/21/24 08:10	7440-39-3	
Beryllium	ND	ug/L	0.20	0.030	1	05/20/24 15:40	05/28/24 03:03	7440-41-7	
Cobalt	ND	ug/L	1.0	0.16	1	05/20/24 15:40	05/22/24 12:58	7440-48-4	
Manganese	**2020**	ug/L	20.0	5.2	20	05/20/24 15:40	05/22/24 10:55	7439-96-5	
Selenium	ND	ug/L	1.0	0.22	1	05/20/24 15:40	05/28/24 03:03	7782-49-2	
Thallium	ND	ug/L	1.0	0.043	1	05/20/24 15:40	05/21/24 08:10	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/18/24 07:50	05/21/24 04:19	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/24/24 10:50	05/27/24 18:59	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Sample: MW-40I **Lab ID: 50373016005** Collected: 05/13/24 15:35 Received: 05/14/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**138**	mg/L	10.0	10.0	1		05/17/24 15:12		
Alkalinity,Bicarbonate (CaCO3)	**138**	mg/L	10.0	10.0	1		05/17/24 15:12		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/17/24 15:12		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2380**	mg/L	40.0	40.0	1		05/16/24 10:55		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.8**	Std. Units	0.10	0.10	1		05/22/24 13:47		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/16/24 11:36	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/14/24 23:47	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.31**	mg/L	0.15	0.13	1	05/24/24 13:30	05/30/24 13:12		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.6**	mg/L	1.0	0.25	1		05/25/24 14:25		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Sample: DUP-10 **Lab ID: 50373016006** Collected: 05/13/24 08:00 Received: 05/14/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**122**	mg/L	2.5	0.67	10		05/25/24 07:49	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/25/24 07:31	16984-48-8	
Sulfate	**1560**	mg/L	25.0	19.0	100		05/25/24 08:06	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**20700**	ug/L	100	11.4	1	05/20/24 21:57	05/21/24 15:19	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	05/20/24 21:57	05/21/24 15:19	7440-43-9	
Calcium	**543000**	ug/L	5000	284	5	05/20/24 21:57	05/21/24 16:12	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	05/20/24 21:57	05/21/24 15:19	7440-47-3	
Iron	**10500**	ug/L	100	18.1	1	05/20/24 21:57	05/21/24 15:19	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	05/20/24 21:57	05/21/24 15:19	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	05/20/24 21:57	05/21/24 15:19	7439-93-2	
Magnesium	**68600**	ug/L	1000	32.8	1	05/20/24 21:57	05/21/24 15:19	7439-95-4	
Molybdenum	**156**	ug/L	10.0	1.1	1	05/20/24 21:57	05/21/24 15:19	7439-98-7	
Potassium	**12600**	ug/L	1000	120	1	05/20/24 21:57	05/21/24 15:19	7440-09-7	
Sodium	**51700**	ug/L	1000	48.2	1	05/20/24 21:57	05/21/24 15:19	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**20700**	ug/L	100	6.2	1	05/21/24 15:47	05/21/24 23:28	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	05/21/24 15:47	05/21/24 23:28	7439-93-2	
Magnesium, Dissolved	**68400**	ug/L	1000	33.6	1	05/21/24 15:47	05/21/24 23:28	7439-95-4	
Molybdenum, Dissolved	**153**	ug/L	10.0	0.78	1	05/21/24 15:47	05/21/24 23:28	7439-98-7	
Potassium, Dissolved	**12300**	ug/L	1000	97.8	1	05/21/24 15:47	05/21/24 23:28	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.27	1	05/20/24 15:40	05/21/24 08:14	7440-36-0	
Arsenic	**1.1**	ug/L	1.0	0.11	1	05/20/24 15:40	05/28/24 03:10	7440-38-2	
Barium	**22.6**	ug/L	1.0	0.090	1	05/20/24 15:40	05/21/24 08:14	7440-39-3	
Beryllium	ND	ug/L	0.20	0.030	1	05/20/24 15:40	05/28/24 03:10	7440-41-7	
Cobalt	ND	ug/L	1.0	0.16	1	05/20/24 15:40	05/22/24 13:05	7440-48-4	
Manganese	**2000**	ug/L	20.0	5.2	20	05/20/24 15:40	05/22/24 10:58	7439-96-5	
Selenium	ND	ug/L	1.0	0.22	1	05/20/24 15:40	05/28/24 03:10	7782-49-2	
Thallium	ND	ug/L	1.0	0.043	1	05/20/24 15:40	05/21/24 08:14	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/18/24 07:50	05/21/24 04:23	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/24/24 10:50	05/27/24 19:02	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Sample: DUP-10 **Lab ID: 50373016006** Collected: 05/13/24 08:00 Received: 05/14/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**139**	mg/L	10.0	10.0	1		05/17/24 15:12		
Alkalinity,Bicarbonate (CaCO3)	**139**	mg/L	10.0	10.0	1		05/17/24 15:12		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/17/24 15:12		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2430**	mg/L	40.0	40.0	1		05/16/24 10:55		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.9**	Std. Units	0.10	0.10	1		05/22/24 13:49		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/16/24 11:36	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/14/24 23:08	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.24**	mg/L	0.15	0.13	1	05/24/24 13:30	05/30/24 13:14		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.9**	mg/L	1.0	0.25	1		05/25/24 14:45		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

QC Batch: 791635
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373016001, 50373016002, 50373016003, 50373016004, 50373016005, 50373016006

METHOD BLANK: 3622415 Matrix: Water
Associated Lab Samples: 50373016001, 50373016002, 50373016003, 50373016004, 50373016005, 50373016006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/24/24 13:13	
Fluoride	mg/L	ND	0.10	0.017	05/24/24 13:13	
Sulfate	mg/L	ND	0.25	0.19	05/24/24 13:13	

LABORATORY CONTROL SAMPLE: 3622416

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	95	80-120	
Fluoride	mg/L	1	0.99	99	80-120	
Sulfate	mg/L	5	4.9	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3622417 3622418

Parameter	Units	50373016001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	18.5	2.5	2.5	20.7	22.6	90	164	80-120	9	15	M0
Fluoride	mg/L	ND	1	1	1.0	1.1	93	102	80-120	9	15	
Sulfate	mg/L	514	500	500	995	1000	96	97	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

QC Batch: 791511 | Analysis Method: EPA 7470
QC Batch Method: EPA 7470 | Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373016001, 50373016002, 50373016003, 50373016004, 50373016005, 50373016006

METHOD BLANK: 3621817 Matrix: Water
Associated Lab Samples: 50373016001, 50373016002, 50373016003, 50373016004, 50373016005, 50373016006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	05/27/24 18:42	

LABORATORY CONTROL SAMPLE: 3621818

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.8	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3621819 3621820

Parameter	Units	50373151001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.9	4.9	98	98	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

QC Batch: 789982
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373016001, 50373016002, 50373016003, 50373016004, 50373016005, 50373016006

METHOD BLANK: 3614593 Matrix: Water
Associated Lab Samples: 50373016001, 50373016002, 50373016003, 50373016004, 50373016005, 50373016006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	11.4	05/21/24 14:26	
Cadmium	ug/L	ND	2.0	0.74	05/21/24 14:26	
Calcium	ug/L	ND	1000	56.7	05/21/24 14:26	
Chromium	ug/L	ND	10.0	1.4	05/21/24 14:26	
Iron	ug/L	ND	100	18.1	05/21/24 14:26	
Lead	ug/L	ND	10.0	4.0	05/21/24 14:26	
Lithium	ug/L	ND	20.0	5.1	05/21/24 14:26	
Magnesium	ug/L	ND	1000	32.8	05/21/24 14:26	
Molybdenum	ug/L	ND	10.0	1.1	05/21/24 14:26	
Potassium	ug/L	ND	1000	120	05/21/24 14:26	
Sodium	ug/L	ND	1000	48.2	05/21/24 14:26	

LABORATORY CONTROL SAMPLE: 3614594

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	941	94	80-120	
Cadmium	ug/L	1000	937	94	80-120	
Calcium	ug/L	10000	10100	101	80-120	
Chromium	ug/L	1000	963	96	80-120	
Iron	ug/L	10000	9580	96	80-120	
Lead	ug/L	1000	936	94	80-120	
Lithium	ug/L	1000	978	98	80-120	
Magnesium	ug/L	10000	9610	96	80-120	
Molybdenum	ug/L	1000	982	98	80-120	
Potassium	ug/L	10000	9550	95	80-120	
Sodium	ug/L	10000	9640	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614595 3614596

Parameter	Units	50372953001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	3940	1000	1000	4830	4750	89	81	75-125	2	20	
Cadmium	ug/L	ND	1000	1000	978	941	98	94	75-125	4	20	
Calcium	ug/L	574000	10000	10000	595000	563000	206	-110	75-125	5	20	P6
Chromium	ug/L	ND	1000	1000	986	937	99	94	75-125	5	20	
Iron	ug/L	ND	10000	10000	9510	9140	95	91	75-125	4	20	
Lead	ug/L	ND	1000	1000	904	867	90	87	75-125	4	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614595 3614596

Parameter	Units	50372953001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	366	1000	1000	1380	1310	101	94	75-125	5	20	
Magnesium	ug/L	51900	10000	10000	60300	58200	84	63	75-125	4	20	P6
Molybdenum	ug/L	ND	1000	1000	1050	990	104	98	75-125	6	20	
Potassium	ug/L	64900	10000	10000	74600	70800	96	59	75-125	5	20	P6
Sodium	ug/L	87000	10000	10000	96100	91400	91	44	75-125	5	20	P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

QC Batch: 791006
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373016001, 50373016002, 50373016003, 50373016004, 50373016005, 50373016006

METHOD BLANK: 3619595 Matrix: Water
Associated Lab Samples: 50373016001, 50373016002, 50373016003, 50373016004, 50373016005, 50373016006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	05/21/24 22:37	
Lithium, Dissolved	ug/L	ND	20.0	6.8	05/21/24 22:37	
Magnesium, Dissolved	ug/L	ND	1000	33.6	05/21/24 22:37	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	05/21/24 22:37	
Potassium, Dissolved	ug/L	ND	1000	97.8	05/21/24 22:37	

LABORATORY CONTROL SAMPLE: 3619596

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	932	93	80-120	
Lithium, Dissolved	ug/L	1000	977	98	80-120	
Magnesium, Dissolved	ug/L	10000	9410	94	80-120	
Molybdenum, Dissolved	ug/L	1000	998	100	80-120	
Potassium, Dissolved	ug/L	10000	9720	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3619597 3619598

Parameter	Units	50373402008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	ND	1000	1000	1030	1010	100	97	75-125	2	20	
Lithium, Dissolved	ug/L	ND	1000	1000	1000	997	100	99	75-125	0	20	
Magnesium, Dissolved	ug/L	26200	10000	10000	35900	35300	97	91	75-125	2	20	
Molybdenum, Dissolved	ug/L	21.0	1000	1000	1050	1030	102	101	75-125	1	20	
Potassium, Dissolved	ug/L	1010	10000	10000	10900	10900	99	99	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

QC Batch: 790740
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373016001, 50373016002, 50373016003, 50373016004, 50373016005, 50373016006

METHOD BLANK: 3618602 Matrix: Water
Associated Lab Samples: 50373016001, 50373016002, 50373016003, 50373016004, 50373016005, 50373016006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.27	05/21/24 07:43	
Arsenic	ug/L	ND	1.0	0.11	05/21/24 07:43	
Barium	ug/L	ND	1.0	0.090	05/21/24 07:43	
Beryllium	ug/L	ND	0.20	0.030	05/21/24 07:43	
Cobalt	ug/L	ND	1.0	0.16	05/21/24 07:43	
Manganese	ug/L	ND	1.0	0.26	05/21/24 07:43	
Selenium	ug/L	ND	1.0	0.22	05/21/24 07:43	
Thallium	ug/L	ND	1.0	0.043	05/21/24 07:43	

LABORATORY CONTROL SAMPLE: 3618603

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.5	106	80-120	
Arsenic	ug/L	40	38.9	97	80-120	
Barium	ug/L	40	39.2	98	80-120	
Beryllium	ug/L	40	39.8	100	80-120	
Cobalt	ug/L	40	41.7	104	80-120	
Manganese	ug/L	40	41.7	104	80-120	
Selenium	ug/L	40	40.2	100	80-120	
Thallium	ug/L	40	41.1	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3618604 3618605

Parameter	Units	50373019007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	42.4	42.2	106	105	75-125	0	20	
Arsenic	ug/L	ND	40	40	39.7	39.5	99	98	75-125	1	20	
Barium	ug/L	0.017 mg/L	40	40	59.3	56.6	106	99	75-125	5	20	
Beryllium	ug/L	ND	40	40	38.9	39.2	97	98	75-125	1	20	CL
Cobalt	ug/L	ND	40	40	39.1	39.3	97	98	75-125	0	20	
Manganese	ug/L	0.0018 mg/L	40	40	42.0	41.9	100	100	75-125	0	20	
Selenium	ug/L	ND	40	40	40.0	40.4	99	100	75-125	1	20	
Thallium	ug/L	ND	40	40	42.1	42.3	105	106	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

QC Batch: 790606
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373016001, 50373016002, 50373016003, 50373016004, 50373016005, 50373016006

METHOD BLANK: 3617837 Matrix: Water
Associated Lab Samples: 50373016001, 50373016002, 50373016003, 50373016004, 50373016005, 50373016006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.3	05/21/24 02:51	

LABORATORY CONTROL SAMPLE: 3617838

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	391	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3617839 3617840

Parameter	Units	50372571004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	390	388	97	97	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

QC Batch: 790563 | Analysis Method: SM 2320B
QC Batch Method: SM 2320B | Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373016001, 50373016002, 50373016003, 50373016004, 50373016005, 50373016006

METHOD BLANK: 3617613 Matrix: Water
Associated Lab Samples: 50373016001, 50373016002, 50373016003, 50373016004, 50373016005, 50373016006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/17/24 15:12	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	05/17/24 15:12	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	05/17/24 15:12	

LABORATORY CONTROL SAMPLE: 3617614

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.5	103	90-110	

SAMPLE DUPLICATE: 3617615

Parameter	Units	50373336003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	620	623	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	620	623	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3617616

Parameter	Units	50373018001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	309	308	0	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	309	308	0	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

QC Batch: 790277 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373016001, 50373016002, 50373016003, 50373016004, 50373016005, 50373016006

METHOD BLANK: 3615937 Matrix: Water
Associated Lab Samples: 50373016001, 50373016002, 50373016003, 50373016004, 50373016005, 50373016006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/16/24 10:52	

LABORATORY CONTROL SAMPLE: 3615938

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	279	93	80-120	

SAMPLE DUPLICATE: 3615939

Parameter	Units	50373012003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	539	538	0	10	

SAMPLE DUPLICATE: 3615940

Parameter	Units	50373022002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	293	285	3	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

QC Batch: 791395
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373016001, 50373016002, 50373016003, 50373016004, 50373016005, 50373016006

SAMPLE DUPLICATE: 3621218

Parameter	Units	50372995006 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.1	0	2	H3

SAMPLE DUPLICATE: 3621219

Parameter	Units	50373456001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.3	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

QC Batch: 790333
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373016001, 50373016002, 50373016003, 50373016004, 50373016005, 50373016006

METHOD BLANK: 3616185 Matrix: Water
Associated Lab Samples: 50373016001, 50373016002, 50373016003, 50373016004, 50373016005, 50373016006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/16/24 11:36	

LABORATORY CONTROL SAMPLE: 3616186

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.54	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3616187 3616188

Parameter	Units	50373084001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.43	0.45	84	88	90-110	5	20	M3

MATRIX SPIKE SAMPLE: 3616190

Parameter	Units	50372996003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.38	75	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

QC Batch: 789947 | Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 | Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373016001, 50373016002, 50373016003, 50373016004, 50373016005, 50373016006

METHOD BLANK: 3614450 Matrix: Water
Associated Lab Samples: 50373016001, 50373016002, 50373016003, 50373016004, 50373016005, 50373016006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/14/24 23:02	

LABORATORY CONTROL SAMPLE: 3614451

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	102	90-110	

MATRIX SPIKE SAMPLE: 3614452

Parameter	Units	50373016001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	3.1	1	4.0	89	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614453 3614454

Parameter	Units	50373084005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.1	1.1	100	101	90-110	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

QC Batch: 791869
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373016001, 50373016002, 50373016003

METHOD BLANK: 3623748 Matrix: Water
Associated Lab Samples: 50373016001, 50373016002, 50373016003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	05/30/24 12:50	

LABORATORY CONTROL SAMPLE: 3623749

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3623750 3623751

Parameter	Units	50373005001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	<0.15			1.5	1.4				2		

MATRIX SPIKE SAMPLE: 3623752

Parameter	Units	50373008001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	ND		1.6			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

QC Batch: 791870
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373016004, 50373016005, 50373016006

METHOD BLANK: 3623753 Matrix: Water
Associated Lab Samples: 50373016004, 50373016005, 50373016006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	05/30/24 13:09	

LABORATORY CONTROL SAMPLE: 3623754

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3623755 3623756

Parameter	Units	50373016004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	0.33			1.8	1.8				1		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

QC Batch: 791924 | Analysis Method: SM 5310C
QC Batch Method: SM 5310C | Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373016001, 50373016002, 50373016003, 50373016004, 50373016005, 50373016006

METHOD BLANK: 3624118 Matrix: Water
Associated Lab Samples: 50373016001, 50373016002, 50373016003, 50373016004, 50373016005, 50373016006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	05/25/24 11:53	

LABORATORY CONTROL SAMPLE: 3624119

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.5	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3624120 3624121

Parameter	Units	50373089005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.0	10	10	11.6	10.2	96	83	80-120	12	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3624122 3624123

Parameter	Units	50373114002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.3	10	10	11.3	11.4	90	91	80-120	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Sample: MW-37B **Lab ID: 50373016001** Collected: 05/13/24 11:10 Received: 05/14/24 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0720 ± 0.373 (0.775) C:NA T:80%**	pCi/L	06/05/24 15:11	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.450 ± 0.351 (0.690) C:78% T:91%**	pCi/L	05/31/24 15:49	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.522 ± 0.724 (1.47)**	pCi/L	06/05/24 17:05	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Sample: MW-37I **Lab ID: 50373016002** Collected: 05/13/24 12:50 Received: 05/14/24 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.118 ± 0.327 (0.635) C:NA T:88%**	pCi/L	06/05/24 15:11	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.379 ± 0.398 (0.827) C:81% T:82%**	pCi/L	05/31/24 15:49	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.497 ± 0.725 (1.46)**	pCi/L	06/05/24 17:05	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Sample: MW-37A **Lab ID: 50373016003** Collected: 05/13/24 14:15 Received: 05/14/24 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.186 ± 0.558 (1.03) C:NA T:92%**	pCi/L	06/05/24 15:11	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.00108 ± 0.296 (0.694) C:79% T:87%**	pCi/L	05/31/24 15:49	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.187 ± 0.854 (1.72)**	pCi/L	06/05/24 17:05	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Sample: DUP-8 **Lab ID: 50373016004** Collected: 05/13/24 08:00 Received: 05/14/24 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.268 ± 0.457 (0.806) C:NA T:94%**	pCi/L	06/05/24 15:11	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.839 ± 0.396 (0.651) C:79% T:88%**	pCi/L	05/31/24 15:51	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.11 ± 0.853 (1.46)**	pCi/L	06/05/24 17:05	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Sample: MW-40I **Lab ID: 50373016005** Collected: 05/13/24 15:35 Received: 05/14/24 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.660 ± 0.842 (1.41) C:NA T:97%**	pCi/L	06/05/24 15:11	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.22 ± 0.430 (0.603) C:86% T:90%**	pCi/L	05/29/24 12:18	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.88 ± 1.27 (2.01)**	pCi/L	06/05/24 17:05	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Sample: DUP-10 **Lab ID: 50373016006** Collected: 05/13/24 08:00 Received: 05/14/24 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.0587 ± 0.415 (0.881) C:NA T:91%**	pCi/L	06/05/24 15:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.652 ± 0.379 (0.696) C:85% T:83%**	pCi/L	06/03/24 12:40	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.652 ± 0.794 (1.58)**	pCi/L	06/06/24 16:14	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

QC Batch: 670806
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50373016005

METHOD BLANK: 3266826 Matrix: Water
Associated Lab Samples: 50373016005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0383 ± 0.479 (1.11) C:70% T:82%	pCi/L	05/29/24 14:49	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

QC Batch: 669130
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50373016001, 50373016002, 50373016003, 50373016004, 50373016005

METHOD BLANK: 3258482 Matrix: Water
Associated Lab Samples: 50373016001, 50373016002, 50373016003, 50373016004, 50373016005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0506 ± 0.231 (0.470) C:NA T:82%	pCi/L	06/05/24 14:46	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

QC Batch: 669134
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50373016006

METHOD BLANK: 3258488 Matrix: Water
Associated Lab Samples: 50373016006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.191 ± 0.231 (0.352) C:NA T:90%	pCi/L	06/05/24 15:25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

QC Batch: 669135
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50373016006

METHOD BLANK: 3258489 Matrix: Water
Associated Lab Samples: 50373016006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.224 ± 0.290 (0.618) C:95% T:87%	pCi/L	06/03/24 12:40	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

QC Batch: 669131
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50373016001, 50373016002, 50373016003, 50373016004

METHOD BLANK: 3258483 Matrix: Water
Associated Lab Samples: 50373016001, 50373016002, 50373016003, 50373016004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.245 ± 0.355 (0.873) C:81% T:80%	pCi/L	05/31/24 15:47	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

CL	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50373016001	**MW-37B**	EPA 9056	791635		
50373016002	**MW-37I**	EPA 9056	791635		
50373016003	**MW-37A**	EPA 9056	791635		
50373016004	**DUP-8**	EPA 9056	791635		
50373016005	**MW-40I**	EPA 9056	791635		
50373016006	**DUP-10**	EPA 9056	791635		
50373016001	**MW-37B**	EPA 3010	789982	EPA 6010	791135
50373016002	**MW-37I**	EPA 3010	789982	EPA 6010	791135
50373016003	**MW-37A**	EPA 3010	789982	EPA 6010	791135
50373016004	**DUP-8**	EPA 3010	789982	EPA 6010	791135
50373016005	**MW-40I**	EPA 3010	789982	EPA 6010	791135
50373016006	**DUP-10**	EPA 3010	789982	EPA 6010	791135
50373016001	**MW-37B**	EPA 3010	791006	EPA 6010	791277
50373016002	**MW-37I**	EPA 3010	791006	EPA 6010	791277
50373016003	**MW-37A**	EPA 3010	791006	EPA 6010	791277
50373016004	**DUP-8**	EPA 3010	791006	EPA 6010	791277
50373016005	**MW-40I**	EPA 3010	791006	EPA 6010	791277
50373016006	**DUP-10**	EPA 3010	791006	EPA 6010	791277
50373016001	**MW-37B**	EPA 200.2	790740	EPA 6020	791023
50373016002	**MW-37I**	EPA 200.2	790740	EPA 6020	791023
50373016003	**MW-37A**	EPA 200.2	790740	EPA 6020	791023
50373016004	**DUP-8**	EPA 200.2	790740	EPA 6020	791023
50373016005	**MW-40I**	EPA 200.2	790740	EPA 6020	791023
50373016006	**DUP-10**	EPA 200.2	790740	EPA 6020	791023
50373016001	**MW-37B**	EPA 200.2	790606	EPA 6020	790772
50373016002	**MW-37I**	EPA 200.2	790606	EPA 6020	790772
50373016003	**MW-37A**	EPA 200.2	790606	EPA 6020	790772
50373016004	**DUP-8**	EPA 200.2	790606	EPA 6020	790772
50373016005	**MW-40I**	EPA 200.2	790606	EPA 6020	790772
50373016006	**DUP-10**	EPA 200.2	790606	EPA 6020	790772
50373016001	**MW-37B**	EPA 7470	791511	EPA 7470	792180
50373016002	**MW-37I**	EPA 7470	791511	EPA 7470	792180
50373016003	**MW-37A**	EPA 7470	791511	EPA 7470	792180
50373016004	**DUP-8**	EPA 7470	791511	EPA 7470	792180
50373016005	**MW-40I**	EPA 7470	791511	EPA 7470	792180
50373016006	**DUP-10**	EPA 7470	791511	EPA 7470	792180
50373016001	**MW-37B**	EPA 903.1	669130		
50373016002	**MW-37I**	EPA 903.1	669130		
50373016003	**MW-37A**	EPA 903.1	669130		
50373016004	**DUP-8**	EPA 903.1	669130		
50373016005	**MW-40I**	EPA 903.1	669130		
50373016006	**DUP-10**	EPA 903.1	669134		
50373016001	**MW-37B**	EPA 904.0	669131		
50373016002	**MW-37I**	EPA 904.0	669131		
50373016003	**MW-37A**	EPA 904.0	669131		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50373016004	**DUP-8**	EPA 904.0	669131		
50373016005	**MW-40I**	EPA 904.0	670806		
50373016006	**DUP-10**	EPA 904.0	669135		
50373016001	**MW-37B**	Total Radium Calculation	673549		
50373016002	**MW-37I**	Total Radium Calculation	673549		
50373016003	**MW-37A**	Total Radium Calculation	673549		
50373016004	**DUP-8**	Total Radium Calculation	673549		
50373016005	**MW-40I**	Total Radium Calculation	673549		
50373016006	**DUP-10**	Total Radium Calculation	673883		
50373016001	**MW-37B**	SM 2320B	790563		
50373016002	**MW-37I**	SM 2320B	790563		
50373016003	**MW-37A**	SM 2320B	790563		
50373016004	**DUP-8**	SM 2320B	790563		
50373016005	**MW-40I**	SM 2320B	790563		
50373016006	**DUP-10**	SM 2320B	790563		
50373016001	**MW-37B**	SM 2540C	790277		
50373016002	**MW-37I**	SM 2540C	790277		
50373016003	**MW-37A**	SM 2540C	790277		
50373016004	**DUP-8**	SM 2540C	790277		
50373016005	**MW-40I**	SM 2540C	790277		
50373016006	**DUP-10**	SM 2540C	790277		
50373016001	**MW-37B**	SM 4500-H+B	791395		
50373016002	**MW-37I**	SM 4500-H+B	791395		
50373016003	**MW-37A**	SM 4500-H+B	791395		
50373016004	**DUP-8**	SM 4500-H+B	791395		
50373016005	**MW-40I**	SM 4500-H+B	791395		
50373016006	**DUP-10**	SM 4500-H+B	791395		
50373016001	**MW-37B**	SM 4500-S2-D	790333		
50373016002	**MW-37I**	SM 4500-S2-D	790333		
50373016003	**MW-37A**	SM 4500-S2-D	790333		
50373016004	**DUP-8**	SM 4500-S2-D	790333		
50373016005	**MW-40I**	SM 4500-S2-D	790333		
50373016006	**DUP-10**	SM 4500-S2-D	790333		
50373016001	**MW-37B**	EPA 353.2	789947		
50373016002	**MW-37I**	EPA 353.2	789947		
50373016003	**MW-37A**	EPA 353.2	789947		
50373016004	**DUP-8**	EPA 353.2	789947		
50373016005	**MW-40I**	EPA 353.2	789947		
50373016006	**DUP-10**	EPA 353.2	789947		
50373016001	**MW-37B**	EPA 365.1	791869	EPA 365.1	792831
50373016002	**MW-37I**	EPA 365.1	791869	EPA 365.1	792831
50373016003	**MW-37A**	EPA 365.1	791869	EPA 365.1	792831
50373016004	**DUP-8**	EPA 365.1	791870	EPA 365.1	792833

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373016

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50373016005	**MW-40I**	EPA 365.1	791870	EPA 365.1	792833
50373016006	**DUP-10**	EPA 365.1	791870	EPA 365.1	792833
50373016001	**MW-37B**	SM 5310C	791924		
50373016002	**MW-37I**	SM 5310C	791924		
50373016003	**MW-37A**	SM 5310C	791924		
50373016004	**DUP-8**	SM 5310C	791924		
50373016005	**MW-40I**	SM 5310C	791924		
50373016006	**DUP-10**	SM 5310C	791924		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request Dc

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields mus

WO# : 50373016

50373016

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam	
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis	
	Indianapolis, IN 46256			Address:		Regulatory Agency
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:		
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg May 2024 P4R4	Pace Project Manager:	Will Statz	State / Location
Requested Due Date:		Project #:		Pace Profile #:		IN

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO3 Wet	(Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity,pH	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum	Residual Chlorine (Y/N)	
	MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																	Requested Analysis Filtered (Y/N)				Y			Y				
1	MW-37B	WT	G			5/13/24	1110		10	X	X	X		X					X	X	X	X	X	X	X	X	X		CW1
2	MW-37 I	WT	G			5/13/24	1250		10	X	X	X		X					X	X	X	X	X	X	X	X	X		CW2
3	MW-37 A	WT	G			5/13/24	1415		10	X	X	X		X					X	X	X	X	X	X	X	X	X		CW3
4	DUP-8	WT	G			5/13/24			10	X	X	X		X					X	X	X	X	X	X	X	X	X		CW4
5	MW-40I	WT	G			5/10/24	1535		10	X	X	X		X					X	X	X	X	X	X	X	X	X		CW5
6	DUP-10	WT	G			5/13/24			10	X	X	X		X					X	X	X	X	X	X	X	X	X		CW6
7																													
8																													
9																													
10																													
11																													
12																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Metals: 6010 (B, Cd, Cr, Fe, Pb, Mo, Ca, Mg, Na, K, Li) (11)		5-14-24	7:00AM			5-14-24	7:00				
020 (Be, Mn, Co, As, Se, Sb, Ba, Tl) (8), 7470 (Hg)		5-14-24	10:00AM	PACE	5/14/24	1000	2.1	Y	Y	Y
Dissolved FF 6010 (B, Mo, Mg, K, Li) (5) FF 6020 (Al) (1)										
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Josh O'Brien					
SIGNATURE of SAMPLER:		DATE Signed: 5-13-24				

F-IN-Q-290-rev.26, 30Apr2024

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: TW 5/14/24 1100

1. **Courier:** ☐FED EX | UPS ☑CLIENT ☐PACE ☐NOW/JETT | OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H

4. **Cooler Temperature(s):** (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

2.3/2.1	2.2/2.0	0.8/0.6	1.1/0.9

5. **Packing Material:** ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **Was the PM notified of out of temp cooler?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

8. **EZ Bottle Order?** ☐ Yes ☑ No

If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis: NO3/RAD's	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 11:30					
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A ✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1													1			2	1	2	1	1	1		1				WT	✓	✓		✓
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

August 01, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 P4R3
Pace Project No.: 50373018

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 14, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373018

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis
7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373018

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50373018001	**AP-11A**	Water	05/13/24 12:45	05/14/24 10:00
50373018002	**AP-11I**	Water	05/13/24 14:32	05/14/24 10:00

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373018

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50373018001	**AP-11A**	EPA 9056	KBB	3	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	ELK	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	JTR	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50373018002	**AP-11I**	EPA 9056	KBB	3	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	ELK	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	JTR	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373018

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50373018001	**AP-11A**					
EPA 9056	Chloride	7.5	mg/L	0.25	05/26/24 10:48	
EPA 9056	Fluoride	0.11	mg/L	0.10	05/26/24 10:48	
EPA 9056	Sulfate	647	mg/L	25.0	05/26/24 11:23	
EPA 6010	Boron	509	ug/L	100	05/22/24 13:24	
EPA 6010	Calcium	242000	ug/L	2000	05/23/24 09:46	
EPA 6010	Iron	14200	ug/L	100	05/22/24 13:24	
EPA 6010	Magnesium	78200	ug/L	1000	05/22/24 13:24	
EPA 6010	Potassium	1420	ug/L	1000	05/22/24 13:24	
EPA 6010	Sodium	14700	ug/L	1000	05/22/24 13:24	
EPA 6010	Boron, Dissolved	543	ug/L	100	05/22/24 13:11	
EPA 6010	Lithium, Dissolved	21.7	ug/L	20.0	05/22/24 13:11	
EPA 6010	Magnesium, Dissolved	76300	ug/L	1000	05/22/24 13:11	
EPA 6010	Potassium, Dissolved	1420	ug/L	1000	05/22/24 13:11	
EPA 6020	Barium	32.3	ug/L	1.0	05/21/24 08:24	
EPA 6020	Manganese	808	ug/L	5.0	05/22/24 11:02	
EPA 903.1	Radium-226	0.180 ± 0.311 (0.556) C:NA T:87%	pCi/L		06/05/24 14:58	
EPA 904.0	Radium-228	0.445 ± 0.328 (0.629) C:81% T:87%	pCi/L		05/31/24 15:49	
Total Radium Calculation	Total Radium	0.625 ± 0.639 (1.19)	pCi/L		06/05/24 17:05	
SM 2320B	Alkalinity, Total as CaCO3	309	mg/L	10.0	05/17/24 15:12	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	309	mg/L	10.0	05/17/24 15:12	
SM 2540C	Total Dissolved Solids	1210	mg/L	20.0	05/16/24 10:56	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	05/22/24 13:50	H3
EPA 365.1	Phosphate as P04	1.2	mg/L	0.15	05/30/24 13:14	
SM 5310C	Dissolved Organic Carbon	1.5	mg/L	1.0	05/25/24 15:11	
50373018002	**AP-11I**					
EPA 9056	Chloride	9.3	mg/L	0.25	05/26/24 11:41	
EPA 9056	Sulfate	410	mg/L	2.5	05/26/24 11:58	
EPA 6010	Boron	1060	ug/L	100	05/22/24 13:32	
EPA 6010	Calcium	180000	ug/L	1000	05/22/24 13:32	
EPA 6010	Iron	18800	ug/L	100	05/22/24 13:32	
EPA 6010	Magnesium	54800	ug/L	1000	05/22/24 13:32	
EPA 6010	Sodium	8570	ug/L	1000	05/22/24 13:32	
EPA 6010	Boron, Dissolved	1050	ug/L	100	05/22/24 13:13	
EPA 6010	Magnesium, Dissolved	53300	ug/L	1000	05/22/24 13:13	
EPA 6020	Arsenic	1.4	ug/L	1.0	05/28/24 03:17	
EPA 6020	Barium	57.4	ug/L	1.0	05/21/24 08:28	
EPA 6020	Manganese	5690	ug/L	50.0	05/22/24 11:05	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373018

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50373018002	**AP-11I**					
EPA 903.1	Radium-226	0.410 ± 0.718 (1.25) C:NA T:91%	pCi/L		06/05/24 14:58	
EPA 904.0	Radium-228	0.724 ± 0.404 (0.718) C:76% T:83%	pCi/L		05/31/24 15:49	
Total Radium Calculation	Total Radium	1.13 ± 1.12 (1.97)	pCi/L		06/05/24 17:05	
SM 2320B	Alkalinity, Total as CaCO3	317	mg/L	10.0	05/17/24 15:12	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	317	mg/L	10.0	05/17/24 15:12	
SM 2540C	Total Dissolved Solids	884	mg/L	10.0	05/16/24 10:56	
SM 4500-H+B	pH at 25 Degrees C	7.0	Std. Units	0.10	05/22/24 13:51	H3
EPA 365.1	Phosphate as P04	1.3	mg/L	0.15	05/30/24 13:15	
SM 5310C	Dissolved Organic Carbon	1.8	mg/L	1.0	05/25/24 16:15	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373018

Sample: AP-11A **Lab ID: 50373018001** Collected: 05/13/24 12:45 Received: 05/14/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**7.5**	mg/L	0.25	0.067	1		05/26/24 10:48	16887-00-6	
Fluoride	**0.11**	mg/L	0.10	0.017	1		05/26/24 10:48	16984-48-8	
Sulfate	**647**	mg/L	25.0	19.0	100		05/26/24 11:23	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**509**	ug/L	100	6.2	1	05/21/24 15:53	05/22/24 13:24	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/21/24 15:53	05/22/24 13:24	7440-43-9	
Calcium	**242000**	ug/L	2000	135	2	05/21/24 15:53	05/23/24 09:46	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/21/24 15:53	05/22/24 13:24	7440-47-3	
Iron	**14200**	ug/L	100	30.0	1	05/21/24 15:53	05/22/24 13:24	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/21/24 15:53	05/22/24 13:24	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/21/24 15:53	05/22/24 13:24	7439-93-2	
Magnesium	**78200**	ug/L	1000	33.6	1	05/21/24 15:53	05/22/24 13:24	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	05/21/24 15:53	05/22/24 13:24	7439-98-7	
Potassium	**1420**	ug/L	1000	97.8	1	05/21/24 15:53	05/22/24 13:24	7440-09-7	
Sodium	**14700**	ug/L	1000	54.8	1	05/21/24 15:53	05/22/24 13:24	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**543**	ug/L	100	6.2	1	05/21/24 07:55	05/22/24 13:11	7440-42-8	
Lithium, Dissolved	**21.7**	ug/L	20.0	6.8	1	05/21/24 07:55	05/22/24 13:11	7439-93-2	
Magnesium, Dissolved	**76300**	ug/L	1000	33.6	1	05/21/24 07:55	05/22/24 13:11	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	05/21/24 07:55	05/22/24 13:11	7439-98-7	
Potassium, Dissolved	**1420**	ug/L	1000	97.8	1	05/21/24 07:55	05/22/24 13:11	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.27	1	05/20/24 15:40	05/21/24 08:24	7440-36-0	
Arsenic	ND	ug/L	1.0	0.11	1	05/20/24 15:40	05/28/24 02:50	7440-38-2	
Barium	**32.3**	ug/L	1.0	0.090	1	05/20/24 15:40	05/21/24 08:24	7440-39-3	
Beryllium	ND	ug/L	0.20	0.030	1	05/20/24 15:40	05/28/24 02:50	7440-41-7	
Cobalt	ND	ug/L	1.0	0.16	1	05/20/24 15:40	05/22/24 13:12	7440-48-4	
Manganese	**808**	ug/L	5.0	1.3	5	05/20/24 15:40	05/22/24 11:02	7439-96-5	
Selenium	ND	ug/L	1.0	0.22	1	05/20/24 15:40	05/28/24 02:50	7782-49-2	
Thallium	ND	ug/L	1.0	0.043	1	05/20/24 15:40	05/21/24 08:24	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/18/24 07:50	05/21/24 15:30	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/24/24 10:39	05/27/24 18:37	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373018

Sample: AP-11A **Lab ID: 50373018001** Collected: 05/13/24 12:45 Received: 05/14/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**309**	mg/L	10.0	10.0	1		05/17/24 15:12		
Alkalinity,Bicarbonate (CaCO3)	**309**	mg/L	10.0	10.0	1		05/17/24 15:12		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/17/24 15:12		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1210**	mg/L	20.0	20.0	1		05/16/24 10:56		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		05/22/24 13:50		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/16/24 11:36	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/14/24 23:28	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**1.2**	mg/L	0.15	0.13	1	05/24/24 13:30	05/30/24 13:14		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.5**	mg/L	1.0	0.25	1		05/25/24 15:11		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373018

Sample: AP-11I **Lab ID: 50373018002** Collected: 05/13/24 14:32 Received: 05/14/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**9.3**	mg/L	0.25	0.067	1		05/26/24 11:41	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/26/24 11:41	16984-48-8	
Sulfate	**410**	mg/L	2.5	1.9	10		05/26/24 11:58	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**1060**	ug/L	100	6.2	1	05/21/24 15:53	05/22/24 13:32	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/21/24 15:53	05/22/24 13:32	7440-43-9	
Calcium	**180000**	ug/L	1000	67.7	1	05/21/24 15:53	05/22/24 13:32	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/21/24 15:53	05/22/24 13:32	7440-47-3	
Iron	**18800**	ug/L	100	30.0	1	05/21/24 15:53	05/22/24 13:32	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/21/24 15:53	05/22/24 13:32	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/21/24 15:53	05/22/24 13:32	7439-93-2	
Magnesium	**54800**	ug/L	1000	33.6	1	05/21/24 15:53	05/22/24 13:32	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	05/21/24 15:53	05/22/24 13:32	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	05/21/24 15:53	05/22/24 13:32	7440-09-7	
Sodium	**8570**	ug/L	1000	54.8	1	05/21/24 15:53	05/22/24 13:32	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1050**	ug/L	100	6.2	1	05/21/24 07:55	05/22/24 13:13	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	05/21/24 07:55	05/22/24 13:13	7439-93-2	
Magnesium, Dissolved	**53300**	ug/L	1000	33.6	1	05/21/24 07:55	05/22/24 13:13	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	05/21/24 07:55	05/22/24 13:13	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	97.8	1	05/21/24 07:55	05/22/24 13:13	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.27	1	05/20/24 15:40	05/21/24 08:28	7440-36-0	
Arsenic	**1.4**	ug/L	1.0	0.11	1	05/20/24 15:40	05/28/24 03:17	7440-38-2	
Barium	**57.4**	ug/L	1.0	0.090	1	05/20/24 15:40	05/21/24 08:28	7440-39-3	
Beryllium	ND	ug/L	0.20	0.030	1	05/20/24 15:40	05/28/24 03:17	7440-41-7	
Cobalt	ND	ug/L	1.0	0.16	1	05/20/24 15:40	05/22/24 13:29	7440-48-4	
Manganese	**5690**	ug/L	50.0	13.0	50	05/20/24 15:40	05/22/24 11:05	7439-96-5	
Selenium	ND	ug/L	1.0	0.22	1	05/20/24 15:40	05/28/24 03:17	7782-49-2	
Thallium	ND	ug/L	1.0	0.043	1	05/20/24 15:40	05/21/24 08:28	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/18/24 07:50	05/21/24 15:34	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/24/24 10:39	05/27/24 18:40	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373018

Sample: AP-11I **Lab ID: 50373018002** Collected: 05/13/24 14:32 Received: 05/14/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**317**	mg/L	10.0	10.0	1		05/17/24 15:12		
Alkalinity,Bicarbonate (CaCO3)	**317**	mg/L	10.0	10.0	1		05/17/24 15:12		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/17/24 15:12		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**884**	mg/L	10.0	10.0	1		05/16/24 10:56		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.0**	Std. Units	0.10	0.10	1		05/22/24 13:51		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/16/24 11:36	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/14/24 23:38	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**1.3**	mg/L	0.15	0.13	1	05/24/24 13:30	05/30/24 13:15		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.8**	mg/L	1.0	0.25	1		05/25/24 16:15		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373018

QC Batch: 791638
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373018001, 50373018002

METHOD BLANK: 3622451 Matrix: Water
Associated Lab Samples: 50373018001, 50373018002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/26/24 10:14	
Fluoride	mg/L	ND	0.10	0.017	05/26/24 10:14	
Sulfate	mg/L	ND	0.25	0.19	05/26/24 10:14	

LABORATORY CONTROL SAMPLE: 3622452

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	96	80-120	
Fluoride	mg/L	1	0.99	99	80-120	
Sulfate	mg/L	5	5.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3622453 3622454

Parameter	Units	50373184003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	98.0	25	25	122	121	97	94	80-120	1	15	
Fluoride	mg/L	0.17	1	1	1.2	1.2	101	100	80-120	0	15	
Sulfate	mg/L	482	50	50	520	517	75	70	80-120	0	15	E,M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373018

QC Batch: 791175
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373018001, 50373018002

METHOD BLANK: 3620258 Matrix: Water
Associated Lab Samples: 50373018001, 50373018002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	05/27/24 17:31	

LABORATORY CONTROL SAMPLE: 3620259

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.1	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3620260 3620261

Parameter	Units	50372570008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.0	4.9	100	97	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373018

QC Batch: 789984
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373018001, 50373018002

METHOD BLANK: 3614599 Matrix: Water
Associated Lab Samples: 50373018001, 50373018002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	05/22/24 13:20	
Cadmium	ug/L	ND	2.0	0.60	05/22/24 13:20	
Calcium	ug/L	ND	1000	67.7	05/22/24 13:20	
Chromium	ug/L	ND	10.0	0.42	05/22/24 13:20	
Iron	ug/L	ND	100	30.0	05/22/24 13:20	
Lead	ug/L	ND	10.0	2.5	05/22/24 13:20	
Lithium	ug/L	ND	20.0	6.8	05/22/24 13:20	
Magnesium	ug/L	ND	1000	33.6	05/22/24 13:20	
Molybdenum	ug/L	ND	10.0	0.78	05/22/24 13:20	
Potassium	ug/L	ND	1000	97.8	05/22/24 13:20	
Sodium	ug/L	ND	1000	54.8	05/22/24 13:20	

LABORATORY CONTROL SAMPLE: 3614600

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	926	93	80-120	
Cadmium	ug/L	1000	922	92	80-120	
Calcium	ug/L	10000	9780	98	80-120	
Chromium	ug/L	1000	956	96	80-120	
Iron	ug/L	10000	9370	94	80-120	
Lead	ug/L	1000	912	91	80-120	
Lithium	ug/L	1000	948	95	80-120	
Magnesium	ug/L	10000	9280	93	80-120	
Molybdenum	ug/L	1000	980	98	80-120	
Potassium	ug/L	10000	9510	95	80-120	
Sodium	ug/L	10000	9410	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614601 3614602

Parameter	Units	50373018001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	509	1000	1000	1510	1530	100	102	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	995	1000	100	100	75-125	1	20	
Calcium	ug/L	242000	10000	10000	257000	248000	151	69	75-125	3	20	P6
Chromium	ug/L	ND	1000	1000	1010	1020	101	101	75-125	1	20	
Iron	ug/L	14200	10000	10000	24200	24400	100	102	75-125	1	20	
Lead	ug/L	ND	1000	1000	935	940	93	94	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373018

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614601 3614602

Parameter	Units	50373018001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	ND	1000	1000	1030	1030	101	102	75-125	0	20	
Magnesium	ug/L	78200	10000	10000	87700	88800	95	105	75-125	1	20	
Molybdenum	ug/L	ND	1000	1000	1060	1060	106	106	75-125	1	20	
Potassium	ug/L	1420	10000	10000	11500	11600	101	102	75-125	1	20	
Sodium	ug/L	14700	10000	10000	24900	24900	102	102	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373018

QC Batch: 789970
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373018001, 50373018002

METHOD BLANK: 3614545 Matrix: Water
Associated Lab Samples: 50373018001, 50373018002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	05/22/24 12:28	
Lithium, Dissolved	ug/L	ND	20.0	6.8	05/22/24 12:28	
Magnesium, Dissolved	ug/L	ND	1000	33.6	05/22/24 12:28	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	05/22/24 12:28	
Potassium, Dissolved	ug/L	ND	1000	97.8	05/22/24 12:28	

LABORATORY CONTROL SAMPLE: 3614546

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	949	95	80-120	
Lithium, Dissolved	ug/L	1000	976	98	80-120	
Magnesium, Dissolved	ug/L	10000	9510	95	80-120	
Molybdenum, Dissolved	ug/L	1000	1020	102	80-120	
Potassium, Dissolved	ug/L	10000	9770	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614547 3614548

Parameter	Units	50372570001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	1.4 mg/L	1000	1000	2350	2380	96	98	75-125	1	20	
Lithium, Dissolved	ug/L	ND	1000	1000	977	982	97	97	75-125	1	20	
Magnesium, Dissolved	ug/L	38.1 mg/L	10000	10000	46500	46900	85	88	75-125	1	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1010	1030	101	102	75-125	1	20	
Potassium, Dissolved	ug/L	1.3 mg/L	10000	10000	11000	11000	97	98	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373018

QC Batch: 790740
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373018001, 50373018002

METHOD BLANK: 3618602 Matrix: Water
Associated Lab Samples: 50373018001, 50373018002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.27	05/21/24 07:43	
Arsenic	ug/L	ND	1.0	0.11	05/21/24 07:43	
Barium	ug/L	ND	1.0	0.090	05/21/24 07:43	
Beryllium	ug/L	ND	0.20	0.030	05/21/24 07:43	
Cobalt	ug/L	ND	1.0	0.16	05/21/24 07:43	
Manganese	ug/L	ND	1.0	0.26	05/21/24 07:43	
Selenium	ug/L	ND	1.0	0.22	05/21/24 07:43	
Thallium	ug/L	ND	1.0	0.043	05/21/24 07:43	

LABORATORY CONTROL SAMPLE: 3618603

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.5	106	80-120	
Arsenic	ug/L	40	38.9	97	80-120	
Barium	ug/L	40	39.2	98	80-120	
Beryllium	ug/L	40	39.8	100	80-120	
Cobalt	ug/L	40	41.7	104	80-120	
Manganese	ug/L	40	41.7	104	80-120	
Selenium	ug/L	40	40.2	100	80-120	
Thallium	ug/L	40	41.1	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3618604 3618605

Parameter	Units	50373019007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	42.4	42.2	106	105	75-125	0	20	
Arsenic	ug/L	ND	40	40	39.7	39.5	99	98	75-125	1	20	
Barium	ug/L	0.017 mg/L	40	40	59.3	56.6	106	99	75-125	5	20	
Beryllium	ug/L	ND	40	40	38.9	39.2	97	98	75-125	1	20	CL
Cobalt	ug/L	ND	40	40	39.1	39.3	97	98	75-125	0	20	
Manganese	ug/L	0.0018 mg/L	40	40	42.0	41.9	100	100	75-125	0	20	
Selenium	ug/L	ND	40	40	40.0	40.4	99	100	75-125	1	20	
Thallium	ug/L	ND	40	40	42.1	42.3	105	106	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373018

QC Batch: 790606
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373018001, 50373018002

METHOD BLANK: 3617837 Matrix: Water
Associated Lab Samples: 50373018001, 50373018002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.3	05/21/24 02:51	

LABORATORY CONTROL SAMPLE: 3617838

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	391	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3617839 3617840

Parameter	Units	50372571004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	390	388	97	97	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373018

QC Batch: 790563
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373018001, 50373018002

METHOD BLANK: 3617613 Matrix: Water
Associated Lab Samples: 50373018001, 50373018002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/17/24 15:12	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	05/17/24 15:12	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	05/17/24 15:12	

LABORATORY CONTROL SAMPLE: 3617614

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.5	103	90-110	

SAMPLE DUPLICATE: 3617615

Parameter	Units	50373336003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	620	623	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	620	623	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3617616

Parameter	Units	50373018001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	309	308	0	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	309	308	0	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373018

QC Batch: 790277
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373018001, 50373018002

METHOD BLANK: 3615937 Matrix: Water
Associated Lab Samples: 50373018001, 50373018002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/16/24 10:52	

LABORATORY CONTROL SAMPLE: 3615938

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	279	93	80-120	

SAMPLE DUPLICATE: 3615939

Parameter	Units	50373012003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	539	538	0	10	

SAMPLE DUPLICATE: 3615940

Parameter	Units	50373022002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	293	285	3	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373018

QC Batch: 791395
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50373018001, 50373018002

SAMPLE DUPLICATE: 3621218

Parameter	Units	50372995006 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.1	0	2	H3

SAMPLE DUPLICATE: 3621219

Parameter	Units	50373456001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.3	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373018

QC Batch: 790333
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373018001, 50373018002

METHOD BLANK: 3616185 Matrix: Water
Associated Lab Samples: 50373018001, 50373018002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/16/24 11:36	

LABORATORY CONTROL SAMPLE: 3616186

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.54	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3616187 3616188

Parameter	Units	50373084001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.43	0.45	84	88	90-110	5	20	M3

MATRIX SPIKE SAMPLE: 3616190

Parameter	Units	50372996003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.38	75	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373018

QC Batch: 789947
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373018001, 50373018002

METHOD BLANK: 3614450 Matrix: Water
Associated Lab Samples: 50373018001, 50373018002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/14/24 23:02	

LABORATORY CONTROL SAMPLE: 3614451

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	102	90-110	

MATRIX SPIKE SAMPLE: 3614452

Parameter	Units	50373016001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	3.1	1	4.0	89	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614453 3614454

Parameter	Units	50373084005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.1	1.1	100	101	90-110	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373018

QC Batch: 791870
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373018001, 50373018002

METHOD BLANK: 3623753 Matrix: Water
Associated Lab Samples: 50373018001, 50373018002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	05/30/24 13:09	

LABORATORY CONTROL SAMPLE: 3623754

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3623755 3623756

Parameter	Units	50373016004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	0.33			1.8	1.8				1		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373018

QC Batch: 791924
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373018001, 50373018002

METHOD BLANK: 3624118 Matrix: Water
Associated Lab Samples: 50373018001, 50373018002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	05/25/24 11:53	

LABORATORY CONTROL SAMPLE: 3624119

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.5	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3624120 3624121

Parameter	Units	50373089005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.0	10	10	11.6	10.2	96	83	80-120	12	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3624122 3624123

Parameter	Units	50373114002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.3	10	10	11.3	11.4	90	91	80-120	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373018

Sample: AP-11A **Lab ID: 50373018001** Collected: 05/13/24 12:45 Received: 05/14/24 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.180 ± 0.311 (0.556) C:NA T:87%**	pCi/L	06/05/24 14:58	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.445 ± 0.328 (0.629) C:81% T:87%**	pCi/L	05/31/24 15:49	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.625 ± 0.639 (1.19)**	pCi/L	06/05/24 17:05	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373018

Sample: AP-11I **Lab ID: 50373018002** Collected: 05/13/24 14:32 Received: 05/14/24 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.410 ± 0.718 (1.25) C:NA T:91%**	pCi/L	06/05/24 14:58	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.724 ± 0.404 (0.718) C:76% T:83%**	pCi/L	05/31/24 15:49	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.13 ± 1.12 (1.97)**	pCi/L	06/05/24 17:05	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373018

QC Batch: 669130
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50373018001, 50373018002

METHOD BLANK: 3258482 Matrix: Water
Associated Lab Samples: 50373018001, 50373018002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0506 ± 0.231 (0.470) C:NA T:82%	pCi/L	06/05/24 14:46	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373018

QC Batch: 669131
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50373018001, 50373018002

METHOD BLANK: 3258483 Matrix: Water
Associated Lab Samples: 50373018001, 50373018002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.245 ± 0.355 (0.873) C:81% T:80%	pCi/L	05/31/24 15:47	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373018

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

CL	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373018

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50373018001	**AP-11A**	EPA 9056	791638		
50373018002	**AP-11I**	EPA 9056	791638		
50373018001	**AP-11A**	EPA 3010	789984	EPA 6010	791427
50373018002	**AP-11I**	EPA 3010	789984	EPA 6010	791427
50373018001	**AP-11A**	EPA 3010	789970	EPA 6010	791396
50373018002	**AP-11I**	EPA 3010	789970	EPA 6010	791396
50373018001	**AP-11A**	EPA 200.2	790740	EPA 6020	791023
50373018002	**AP-11I**	EPA 200.2	790740	EPA 6020	791023
50373018001	**AP-11A**	EPA 200.2	790606	EPA 6020	790772
50373018002	**AP-11I**	EPA 200.2	790606	EPA 6020	790772
50373018001	**AP-11A**	EPA 7470	791175	EPA 7470	792179
50373018002	**AP-11I**	EPA 7470	791175	EPA 7470	792179
50373018001	**AP-11A**	EPA 903.1	669130		
50373018002	**AP-11I**	EPA 903.1	669130		
50373018001	**AP-11A**	EPA 904.0	669131		
50373018002	**AP-11I**	EPA 904.0	669131		
50373018001	**AP-11A**	Total Radium Calculation	673549		
50373018002	**AP-11I**	Total Radium Calculation	673549		
50373018001	**AP-11A**	SM 2320B	790563		
50373018002	**AP-11I**	SM 2320B	790563		
50373018001	**AP-11A**	SM 2540C	790277		
50373018002	**AP-11I**	SM 2540C	790277		
50373018001	**AP-11A**	SM 4500-H+B	791395		
50373018002	**AP-11I**	SM 4500-H+B	791395		
50373018001	**AP-11A**	SM 4500-S2-D	790333		
50373018002	**AP-11I**	SM 4500-S2-D	790333		
50373018001	**AP-11A**	EPA 353.2	789947		
50373018002	**AP-11I**	EPA 353.2	789947		
50373018001	**AP-11A**	EPA 365.1	791870	EPA 365.1	792833
50373018002	**AP-11I**	EPA 365.1	791870	EPA 365.1	792833
50373018001	**AP-11A**	SM 5310C	791924		
50373018002	**AP-11I**	SM 5310C	791924		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request D

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields mu

WO# : 50373018

50373018

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P4 May 2024	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:	P4R3	Pace Profile #:	10498/60

Regulatory Agency	
State / Location	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO3 Wet	(Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity,pH	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum				Residual Chlorine (Y/N)	
																			Y				Y								
1	AP-11A		G	5-13	1210	5-13	1245		10	3	2	4		1					↓	↓	↓	↓	↓	↓	↓	↓	↓	1				
2	AP-11I		G	5-13	1400	5-13	1432		10	3	2	4		1																	
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Metals: 6010 (B, Cd, Cr, Fe, Pb, Mo, Ca, Mg, Na, K, Li) (11)	Mohammed Burlamet	5/13/24	1600	Joy Williams	5/13/24	7:00 AM				
020 (Be, Mn, Co, As, Se, Sb, Ba, Tl) (8), 7470 (Hg)	Joy Williams	5/14/24	1000 AM	PACE	5/14/24	1000	1.5	4	Y N 5/Th/14	Y
Dissolved FF 6010 (B, Mo, Mg, K, Li) (5) FF 6020 (Al) (1)										
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Mykah Bertram				
SIGNATURE of SAMPLER:					
DATE Signed:	5-13-24				

F-IN-Q-290-rev.26, 30Apr2024

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: TW 5/14/24 1040

1. **Courier:** ☐FED EX | ☑UPS ☐CLIENT ☐PACE ☐NOW/JETT | ☐OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H
4. **Cooler Temperature(s):** 1.3/1.5 | | |
   (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)
5. **Packing Material:** | |Bubble Wrap ☑ |Bubble Bags | |None | |Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **Was the PM notified of out of temp cooler?:** | |Yes ☐No
   Cooler temp should be above freezing to 6°C
8. **EZ Bottle Order?** | Yes | |No
   If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis: NO3/RAD's	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 12:05		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	✓ N/A
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	✓ No VOA Vials Sent
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1													1			2	1	2	1	1	1		1				WT	✓	✓		✓
2																											WT	✓	✓		✓
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

July 24, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 15, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis
7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50373152001	**MW-40B**	Water	05/14/24 11:55	05/15/24 09:00
50373152002	**MW-40A**	Water	05/14/24 13:05	05/15/24 09:00

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50373152001	**MW-40B**	EPA 9056	KBB	3	PASI-I
		EPA 6010	NWB	11	PASI-I
		EPA 6010	ELK	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50373152002	**MW-40A**	EPA 9056	KBB	3	PASI-I
		EPA 6010	NWB	11	PASI-I
		EPA 6010	ELK	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50373152001	**MW-40B**					
EPA 9056	Chloride	18.0	mg/L	0.25	05/26/24 14:00	
EPA 9056	Fluoride	0.11	mg/L	0.10	05/26/24 14:00	
EPA 9056	Sulfate	152	mg/L	2.5	05/26/24 14:18	
EPA 6010	Boron	1610	ug/L	100	05/23/24 11:21	
EPA 6010	Calcium	154000	ug/L	1000	05/23/24 11:21	
EPA 6010	Magnesium	39100	ug/L	1000	05/23/24 11:21	
EPA 6010	Sodium	9710	ug/L	1000	05/23/24 11:21	
EPA 6010	Boron, Dissolved	1500	ug/L	100	05/23/24 15:17	
EPA 6010	Magnesium, Dissolved	36700	ug/L	1000	05/23/24 15:17	
EPA 6020	Barium	41.6	ug/L	1.0	05/21/24 03:43	
EPA 6020	Manganese	22.2	ug/L	1.0	05/21/24 03:43	
EPA 903.1	Radium-226	-0.119 ± 0.494 (1.04) C:NA T:90%	pCi/L		06/05/24 14:28	
EPA 904.0	Radium-228	0.281 ± 0.354 (0.751) C:84% T:81%	pCi/L		06/04/24 12:07	
Total Radium Calculation	Total Radium	0.281 ± 0.848 (1.79)	pCi/L		06/07/24 10:32	
SM 2320B	Alkalinity, Total as CaCO3	375	mg/L	10.0	05/17/24 19:47	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	375	mg/L	10.0	05/17/24 19:47	
SM 2540C	Total Dissolved Solids	593	mg/L	10.0	05/20/24 11:03	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	05/23/24 13:22	H3
EPA 353.2	Nitrogen, Nitrate	0.30	mg/L	0.10	05/16/24 00:11	
SM 5310C	Dissolved Organic Carbon	2.0	mg/L	1.0	05/25/24 15:28	
50373152002	**MW-40A**					
EPA 9056	Chloride	145	mg/L	2.5	05/26/24 14:52	
EPA 9056	Sulfate	1630	mg/L	25.0	05/26/24 15:10	
EPA 6010	Boron	24400	ug/L	100	05/23/24 11:22	
EPA 6010	Calcium	674000	ug/L	5000	05/23/24 14:28	
EPA 6010	Iron	11600	ug/L	100	05/23/24 11:22	
EPA 6010	Magnesium	37300	ug/L	1000	05/23/24 11:22	
EPA 6010	Molybdenum	762	ug/L	10.0	05/23/24 11:22	
EPA 6010	Potassium	13400	ug/L	1000	05/23/24 11:22	
EPA 6010	Sodium	50100	ug/L	1000	05/23/24 11:22	
EPA 6010	Boron, Dissolved	23800	ug/L	100	05/23/24 15:19	
EPA 6010	Magnesium, Dissolved	35900	ug/L	1000	05/23/24 15:19	
EPA 6010	Molybdenum, Dissolved	733	ug/L	10.0	05/23/24 15:19	
EPA 6010	Potassium, Dissolved	12600	ug/L	1000	05/23/24 15:19	
EPA 6020	Barium	28.1	ug/L	1.0	05/21/24 03:50	
EPA 6020	Manganese	2210	ug/L	20.0	05/21/24 03:47	
EPA 903.1	Radium-226	-0.539 ± 0.727 (1.55) C:NA T:92%	pCi/L		06/05/24 14:28	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50373152002	**MW-40A**					
EPA 904.0	Radium-228	0.692 ± 0.374 (0.673) C:86% T:88%	pCi/L		06/04/24 12:07	
Total Radium Calculation	Total Radium	0.692 ± 1.10 (2.22)	pCi/L		06/07/24 10:32	
SM 2320B	Alkalinity, Total as CaCO3	98.2	mg/L	10.0	05/17/24 19:47	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	98.2	mg/L	10.0	05/17/24 19:47	
SM 2540C	Total Dissolved Solids	2820	mg/L	40.0	05/20/24 11:03	
SM 4500-H+B	pH at 25 Degrees C	6.8	Std. Units	0.10	05/23/24 13:22	H3
EPA 365.1	Phosphate as P04	0.21	mg/L	0.15	05/30/24 18:06	
SM 5310C	Dissolved Organic Carbon	2.5	mg/L	1.0	05/25/24 15:38	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

Sample: MW-40B **Lab ID: 50373152001** Collected: 05/14/24 11:55 Received: 05/15/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**18.0**	mg/L	0.25	0.067	1		05/26/24 14:00	16887-00-6	
Fluoride	**0.11**	mg/L	0.10	0.017	1		05/26/24 14:00	16984-48-8	
Sulfate	**152**	mg/L	2.5	1.9	10		05/26/24 14:18	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**1610**	ug/L	100	11.4	1	05/22/24 16:06	05/23/24 11:21	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	05/22/24 16:06	05/23/24 11:21	7440-43-9	
Calcium	**154000**	ug/L	1000	56.7	1	05/22/24 16:06	05/23/24 11:21	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	05/22/24 16:06	05/23/24 11:21	7440-47-3	
Iron	ND	ug/L	100	18.1	1	05/22/24 16:06	05/23/24 11:21	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	05/22/24 16:06	05/23/24 11:21	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	05/22/24 16:06	05/23/24 11:21	7439-93-2	
Magnesium	**39100**	ug/L	1000	32.8	1	05/22/24 16:06	05/23/24 11:21	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	05/22/24 16:06	05/23/24 11:21	7439-98-7	
Potassium	ND	ug/L	1000	120	1	05/22/24 16:06	05/23/24 11:21	7440-09-7	
Sodium	**9710**	ug/L	1000	48.2	1	05/22/24 16:06	05/23/24 11:21	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1500**	ug/L	100	6.2	1	05/22/24 08:19	05/23/24 15:17	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	05/22/24 08:19	05/23/24 15:17	7439-93-2	
Magnesium, Dissolved	**36700**	ug/L	1000	33.6	1	05/22/24 08:19	05/23/24 15:17	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	05/22/24 08:19	05/23/24 15:17	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	97.8	1	05/22/24 08:19	05/23/24 15:17	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.27	1	05/20/24 15:40	05/21/24 03:43	7440-36-0	
Arsenic	ND	ug/L	1.0	0.11	1	05/20/24 15:40	05/21/24 03:43	7440-38-2	
Barium	**41.6**	ug/L	1.0	0.090	1	05/20/24 15:40	05/21/24 03:43	7440-39-3	
Beryllium	ND	ug/L	0.20	0.030	1	05/20/24 15:40	05/28/24 02:22	7440-41-7	
Cobalt	ND	ug/L	1.0	0.16	1	05/20/24 15:40	05/21/24 03:43	7440-48-4	
Manganese	**22.2**	ug/L	1.0	0.26	1	05/20/24 15:40	05/21/24 03:43	7439-96-5	
Selenium	ND	ug/L	1.0	0.22	1	05/20/24 15:40	05/21/24 03:43	7782-49-2	
Thallium	ND	ug/L	1.0	0.043	1	05/20/24 15:40	05/21/24 03:43	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/18/24 07:50	05/21/24 15:38	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/24/24 10:50	05/27/24 19:39	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

Sample: MW-40B **Lab ID: 50373152001** Collected: 05/14/24 11:55 Received: 05/15/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**375**	mg/L	10.0	10.0	1		05/17/24 19:47		
Alkalinity,Bicarbonate (CaCO3)	**375**	mg/L	10.0	10.0	1		05/17/24 19:47		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/17/24 19:47		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**593**	mg/L	10.0	10.0	1		05/20/24 11:03		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		05/23/24 13:22		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/21/24 16:15	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**0.30**	mg/L	0.10	0.013	1		05/16/24 00:11	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	05/29/24 10:00	05/30/24 14:59		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.0**	mg/L	1.0	0.25	1		05/25/24 15:28		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

Sample: MW-40A **Lab ID: 50373152002** Collected: 05/14/24 13:05 Received: 05/15/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**145**	mg/L	2.5	0.67	10		05/26/24 14:52	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/26/24 14:35	16984-48-8	
Sulfate	**1630**	mg/L	25.0	19.0	100		05/26/24 15:10	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**24400**	ug/L	100	11.4	1	05/22/24 16:06	05/23/24 11:22	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	05/22/24 16:06	05/23/24 11:22	7440-43-9	
Calcium	**674000**	ug/L	5000	284	5	05/22/24 16:06	05/23/24 14:28	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	05/22/24 16:06	05/23/24 11:22	7440-47-3	
Iron	**11600**	ug/L	100	18.1	1	05/22/24 16:06	05/23/24 11:22	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	05/22/24 16:06	05/23/24 11:22	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	05/22/24 16:06	05/23/24 11:22	7439-93-2	
Magnesium	**37300**	ug/L	1000	32.8	1	05/22/24 16:06	05/23/24 11:22	7439-95-4	
Molybdenum	**762**	ug/L	10.0	1.1	1	05/22/24 16:06	05/23/24 11:22	7439-98-7	
Potassium	**13400**	ug/L	1000	120	1	05/22/24 16:06	05/23/24 11:22	7440-09-7	
Sodium	**50100**	ug/L	1000	48.2	1	05/22/24 16:06	05/23/24 11:22	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**23800**	ug/L	100	6.2	1	05/22/24 08:19	05/23/24 15:19	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	05/22/24 08:19	05/23/24 15:19	7439-93-2	
Magnesium, Dissolved	**35900**	ug/L	1000	33.6	1	05/22/24 08:19	05/23/24 15:19	7439-95-4	
Molybdenum, Dissolved	**733**	ug/L	10.0	0.78	1	05/22/24 08:19	05/23/24 15:19	7439-98-7	
Potassium, Dissolved	**12600**	ug/L	1000	97.8	1	05/22/24 08:19	05/23/24 15:19	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.27	1	05/20/24 15:40	05/21/24 03:50	7440-36-0	
Arsenic	ND	ug/L	1.0	0.11	1	05/20/24 15:40	05/21/24 03:50	7440-38-2	
Barium	**28.1**	ug/L	1.0	0.090	1	05/20/24 15:40	05/21/24 03:50	7440-39-3	
Beryllium	ND	ug/L	0.20	0.030	1	05/20/24 15:40	05/28/24 02:15	7440-41-7	
Cobalt	ND	ug/L	1.0	0.16	1	05/20/24 15:40	05/21/24 03:50	7440-48-4	
Manganese	**2210**	ug/L	20.0	5.2	20	05/20/24 15:40	05/21/24 03:47	7439-96-5	
Selenium	ND	ug/L	1.0	0.22	1	05/20/24 15:40	05/21/24 03:50	7782-49-2	
Thallium	ND	ug/L	1.0	0.043	1	05/20/24 15:40	05/21/24 03:50	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/18/24 07:50	05/21/24 15:41	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/24/24 10:50	05/27/24 19:41	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

Sample: MW-40A **Lab ID: 50373152002** Collected: 05/14/24 13:05 Received: 05/15/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**98.2**	mg/L	10.0	10.0	1		05/17/24 19:47		
Alkalinity,Bicarbonate (CaCO3)	**98.2**	mg/L	10.0	10.0	1		05/17/24 19:47		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/17/24 19:47		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2820**	mg/L	40.0	40.0	1		05/20/24 11:03		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.8**	Std. Units	0.10	0.10	1		05/23/24 13:22		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/16/24 14:13	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/16/24 00:15	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.21**	mg/L	0.15	0.13	1	05/29/24 10:00	05/30/24 18:06		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.5**	mg/L	1.0	0.25	1		05/25/24 15:38		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

QC Batch: 791638
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373152001, 50373152002

METHOD BLANK: 3622451 Matrix: Water
Associated Lab Samples: 50373152001, 50373152002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/26/24 10:14	
Fluoride	mg/L	ND	0.10	0.017	05/26/24 10:14	
Sulfate	mg/L	ND	0.25	0.19	05/26/24 10:14	

LABORATORY CONTROL SAMPLE: 3622452

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	96	80-120	
Fluoride	mg/L	1	0.99	99	80-120	
Sulfate	mg/L	5	5.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3622453 3622454

Parameter	Units	50373184003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	98.0	25	25	122	121	97	94	80-120	1	15	
Fluoride	mg/L	0.17	1	1	1.2	1.2	101	100	80-120	0	15	
Sulfate	mg/L	482	50	50	520	517	75	70	80-120	0	15	E,M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

QC Batch: 791511
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373152001, 50373152002

METHOD BLANK: 3621817 Matrix: Water
Associated Lab Samples: 50373152001, 50373152002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	05/27/24 18:42	

LABORATORY CONTROL SAMPLE: 3621818

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.8	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3621819 3621820

Parameter	Units	50373151001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.9	4.9	98	98	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

QC Batch: 790989
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373152001, 50373152002

METHOD BLANK: 3619469 Matrix: Water
Associated Lab Samples: 50373152001, 50373152002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	11.4	05/23/24 11:13	
Cadmium	ug/L	ND	2.0	0.74	05/23/24 11:13	
Calcium	ug/L	ND	1000	56.7	05/23/24 11:13	
Chromium	ug/L	ND	10.0	1.4	05/23/24 11:13	
Iron	ug/L	ND	100	18.1	05/23/24 11:13	
Lead	ug/L	ND	10.0	4.0	05/23/24 11:13	
Lithium	ug/L	ND	20.0	5.1	05/23/24 11:13	
Magnesium	ug/L	ND	1000	32.8	05/23/24 11:13	
Molybdenum	ug/L	ND	10.0	1.1	05/23/24 11:13	
Potassium	ug/L	ND	1000	120	05/23/24 11:13	
Sodium	ug/L	ND	1000	48.2	05/23/24 11:13	

LABORATORY CONTROL SAMPLE: 3619470

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	990	99	80-120	
Cadmium	ug/L	1000	979	98	80-120	
Calcium	ug/L	10000	10300	103	80-120	
Chromium	ug/L	1000	1000	100	80-120	
Iron	ug/L	10000	10100	101	80-120	
Lead	ug/L	1000	959	96	80-120	
Lithium	ug/L	1000	1030	103	80-120	
Magnesium	ug/L	10000	10000	100	80-120	
Molybdenum	ug/L	1000	1060	106	80-120	
Potassium	ug/L	10000	9980	100	80-120	
Sodium	ug/L	10000	9860	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3619471 3619472

Parameter	Units	50373243001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	ND	1000	1000	1030	987	94	90	75-125	4	20	
Cadmium	ug/L	ND	1000	1000	983	949	98	95	75-125	4	20	
Calcium	ug/L	3510	10000	10000	13700	13300	102	98	75-125	4	20	
Chromium	ug/L	ND	1000	1000	1020	981	101	98	75-125	4	20	
Iron	ug/L	5830	10000	10000	14100	13700	83	79	75-125	3	20	
Lead	ug/L	ND	1000	1000	970	936	96	93	75-125	4	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3619471 3619472

Parameter	Units	50373243001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	ND	1000	1000	1040	1010	104	101	75-125	3	20	
Magnesium	ug/L	4170	10000	10000	14200	13700	100	95	75-125	4	20	
Molybdenum	ug/L	ND	1000	1000	1070	1040	107	103	75-125	3	20	
Potassium	ug/L	ND	10000	10000	10400	10100	101	98	75-125	3	20	
Sodium	ug/L	ND	10000	10000	10600	10300	98	95	75-125	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3619473 3619474

Parameter	Units	50373284008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	105	1000	1000	1100	1140	100	104	75-125	4	20	
Cadmium	ug/L	ND	1000	1000	962	994	96	99	75-125	3	20	
Calcium	ug/L	75400	10000	10000	83700	86000	83	106	75-125	3	20	
Chromium	ug/L	ND	1000	1000	978	1010	97	101	75-125	3	20	
Iron	ug/L	6190	10000	10000	16200	16700	100	105	75-125	3	20	
Lead	ug/L	ND	1000	1000	914	941	91	93	75-125	3	20	
Lithium	ug/L	ND	1000	1000	997	1040	99	103	75-125	4	20	
Magnesium	ug/L	40300	10000	10000	49200	50700	89	104	75-125	3	20	
Molybdenum	ug/L	ND	1000	1000	1050	1080	105	108	75-125	3	20	
Potassium	ug/L	1840	10000	10000	11800	12200	99	104	75-125	4	20	
Sodium	ug/L	66000	10000	10000	73500	75800	74	98	75-125	3	20	P6

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3619475 3619476

Parameter	Units	50373343001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	ND	1000	1000	1050	1060	98	100	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	954	970	95	97	75-125	2	20	
Calcium	ug/L	71900	10000	10000	81200	81700	93	98	75-125	1	20	
Chromium	ug/L	10.8	1000	1000	982	1000	97	99	75-125	2	20	
Iron	ug/L	13400	10000	10000	25100	25600	116	122	75-125	2	20	
Lead	ug/L	ND	1000	1000	914	932	91	92	75-125	2	20	
Lithium	ug/L	ND	1000	1000	1000	1020	99	101	75-125	1	20	
Magnesium	ug/L	19700	10000	10000	29200	29500	95	99	75-125	1	20	
Molybdenum	ug/L	ND	1000	1000	1050	1070	105	107	75-125	2	20	
Potassium	ug/L	2570	10000	10000	13000	13200	105	106	75-125	1	20	
Sodium	ug/L	171000	10000	10000	178000	180000	68	86	75-125	1	20	P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

QC Batch: 791007
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373152001, 50373152002

METHOD BLANK: 3619599 Matrix: Water
Associated Lab Samples: 50373152001, 50373152002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	05/23/24 15:14	
Lithium, Dissolved	ug/L	ND	20.0	6.8	05/23/24 15:14	
Magnesium, Dissolved	ug/L	ND	1000	33.6	05/23/24 15:14	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	05/23/24 15:14	
Potassium, Dissolved	ug/L	ND	1000	97.8	05/23/24 15:14	

LABORATORY CONTROL SAMPLE: 3619600

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	949	95	80-120	
Lithium, Dissolved	ug/L	1000	977	98	80-120	
Magnesium, Dissolved	ug/L	10000	9630	96	80-120	
Molybdenum, Dissolved	ug/L	1000	1020	102	80-120	
Potassium, Dissolved	ug/L	10000	9380	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3619601 3619602

Parameter	Units	50373284008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	107	1000	1000	1100	1060	99	96	75-125	3	20	
Lithium, Dissolved	ug/L	ND	1000	1000	986	981	98	98	75-125	0	20	
Magnesium, Dissolved	ug/L	37900	10000	10000	47900	45600	100	77	75-125	5	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1050	1030	105	103	75-125	2	20	
Potassium, Dissolved	ug/L	1420	10000	10000	11100	11000	97	95	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

QC Batch: 790752
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373152001, 50373152002

METHOD BLANK: 3618686 Matrix: Water
Associated Lab Samples: 50373152001, 50373152002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.27	05/21/24 01:49	
Arsenic	ug/L	ND	1.0	0.11	05/21/24 01:49	
Barium	ug/L	ND	1.0	0.090	05/21/24 01:49	
Beryllium	ug/L	ND	0.20	0.030	05/21/24 01:49	
Cobalt	ug/L	ND	1.0	0.16	05/21/24 01:49	
Manganese	ug/L	ND	1.0	0.26	05/21/24 01:49	
Selenium	ug/L	ND	1.0	0.22	05/21/24 01:49	
Thallium	ug/L	ND	1.0	0.043	05/21/24 01:49	

LABORATORY CONTROL SAMPLE: 3618687

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.9	107	80-120	
Arsenic	ug/L	40	39.6	99	80-120	
Barium	ug/L	40	40.3	101	80-120	
Beryllium	ug/L	40	39.8	100	80-120	
Cobalt	ug/L	40	40.7	102	80-120	
Manganese	ug/L	40	41.9	105	80-120	
Selenium	ug/L	40	39.9	100	80-120	
Thallium	ug/L	40	41.8	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3618688 3618689

Parameter	Units	50373456001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	43.1	43.4	108	108	75-125	1	20	
Arsenic	ug/L	ND	40	40	39.9	40.0	99	100	75-125	0	20	
Barium	ug/L	79.0	40	40	120	120	103	102	75-125	0	20	
Beryllium	ug/L	ND	40	40	44.7	42.2	112	105	75-125	6	20	
Cobalt	ug/L	ND	40	40	39.0	39.1	97	98	75-125	0	20	
Manganese	ug/L	3.0	40	40	43.5	43.4	101	101	75-125	0	20	
Selenium	ug/L	7.3	40	40	45.9	47.1	97	100	75-125	3	20	
Thallium	ug/L	ND	40	40	42.4	42.5	106	106	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

QC Batch: 790606
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373152001, 50373152002

METHOD BLANK: 3617837 Matrix: Water
Associated Lab Samples: 50373152001, 50373152002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.3	05/21/24 02:51	

LABORATORY CONTROL SAMPLE: 3617838

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	391	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3617839 3617840

Parameter	Units	50372571004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	390	388	97	97	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

QC Batch: 790686
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373152001, 50373152002

METHOD BLANK: 3618350 Matrix: Water
Associated Lab Samples: 50373152001, 50373152002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/17/24 19:47	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	05/17/24 19:47	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	05/17/24 19:47	

LABORATORY CONTROL SAMPLE: 3618351

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.1	102	90-110	

SAMPLE DUPLICATE: 3618352

Parameter	Units	50373254003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	382	384	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	382	384	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

QC Batch: 790834
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373152001, 50373152002

METHOD BLANK: 3619018 Matrix: Water
Associated Lab Samples: 50373152001, 50373152002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/20/24 11:02	

LABORATORY CONTROL SAMPLE: 3619019

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	284	95	80-120	

SAMPLE DUPLICATE: 3619020

Parameter	Units	50373152002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2820	2540	10	10	

SAMPLE DUPLICATE: 3619021

Parameter	Units	50373216005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	325	281	15	10	R1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

QC Batch: 791407
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50373152001, 50373152002

SAMPLE DUPLICATE: 3621251

Parameter	Units	50373114002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.6	6.7	1	2	H3

SAMPLE DUPLICATE: 3621252

Parameter	Units	50373151001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.3	0	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

QC Batch: 790420
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373152002

METHOD BLANK: 3616694 Matrix: Water
Associated Lab Samples: 50373152002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/16/24 14:13	

LABORATORY CONTROL SAMPLE: 3616695

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.54	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3616696 3616697

Parameter	Units	50373114002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.41	0.42	79	80	90-110	2	20	M3

MATRIX SPIKE SAMPLE: 3616698

Parameter	Units	50373152002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	.064J	11	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

QC Batch: 791181
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373152001

METHOD BLANK: 3620276 Matrix: Water
Associated Lab Samples: 50373152001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/21/24 16:15	

LABORATORY CONTROL SAMPLE: 3620277

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.49	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3620278 3620279

Parameter	Units	50373243001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	2.5	2.5	2.7	2.6	106	104	90-110	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3620285 3620286

Parameter	Units	50373604003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.51	0.50	101	100	90-110	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

QC Batch: 790246
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373152001, 50373152002

METHOD BLANK: 3615814 Matrix: Water
Associated Lab Samples: 50373152001, 50373152002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/15/24 23:45	

LABORATORY CONTROL SAMPLE: 3615815

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.1	109	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3615816 3615817

Parameter	Units	50373135007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	1.9	1	1	2.9	2.9	99	101	90-110	0	20	

MATRIX SPIKE SAMPLE: 3615818

Parameter	Units	50373146003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.1	110	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

QC Batch: 792472
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373152001, 50373152002

METHOD BLANK: 3626562 Matrix: Water
Associated Lab Samples: 50373152001, 50373152002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	05/30/24 14:54	

LABORATORY CONTROL SAMPLE: 3626563

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3626564 3626565

Parameter	Units	50373244007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	0.40			1.9	1.9				3		

MATRIX SPIKE SAMPLE: 3626566

Parameter	Units	50373152001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	ND		1.6			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

QC Batch: 792095
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373152001, 50373152002

METHOD BLANK: 3625126 Matrix: Water
Associated Lab Samples: 50373152001, 50373152002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	05/25/24 14:33	

LABORATORY CONTROL SAMPLE: 3625127

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3625128 3625129

Parameter	Units	50373256009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.7	10	10	12.3	11.9	95	92	80-120	3	20	

MATRIX SPIKE SAMPLE: 3625130

Parameter	Units	50373256014 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	19.5	40	56.8	93	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

Sample: MW-40B **Lab ID: 50373152001** Collected: 05/14/24 11:55 Received: 05/15/24 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.119 ± 0.494 (1.04) C:NA T:90%**	pCi/L	06/05/24 14:28	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.281 ± 0.354 (0.751) C:84% T:81%**	pCi/L	06/04/24 12:07	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.281 ± 0.848 (1.79)**	pCi/L	06/07/24 10:32	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

Sample: MW-40A **Lab ID: 50373152002** Collected: 05/14/24 13:05 Received: 05/15/24 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.539 ± 0.727 (1.55) C:NA T:92%**	pCi/L	06/05/24 14:28	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.692 ± 0.374 (0.673) C:86% T:88%**	pCi/L	06/04/24 12:07	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.692 ± 1.10 (2.22)**	pCi/L	06/07/24 10:32	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

QC Batch: 669510
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50373152001, 50373152002

METHOD BLANK: 3260280 Matrix: Water
Associated Lab Samples: 50373152001, 50373152002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.121 ± 0.289 (0.645) C:78% T:89%	pCi/L	06/04/24 12:03	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

QC Batch: 669509
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50373152001, 50373152002

METHOD BLANK: 3260277 Matrix: Water
Associated Lab Samples: 50373152001, 50373152002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0984 ± 0.236 (0.457) C:NA T:91%	pCi/L	06/05/24 14:03	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
R1	RPD value was outside control limits.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373152

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50373152001	**MW-40B**	EPA 9056	791638		
50373152002	**MW-40A**	EPA 9056	791638		
50373152001	**MW-40B**	EPA 3010	790989	EPA 6010	791600
50373152002	**MW-40A**	EPA 3010	790989	EPA 6010	791600
50373152001	**MW-40B**	EPA 3010	791007	EPA 6010	791725
50373152002	**MW-40A**	EPA 3010	791007	EPA 6010	791725
50373152001	**MW-40B**	EPA 200.2	790752	EPA 6020	791024
50373152002	**MW-40A**	EPA 200.2	790752	EPA 6020	791024
50373152001	**MW-40B**	EPA 200.2	790606	EPA 6020	790772
50373152002	**MW-40A**	EPA 200.2	790606	EPA 6020	790772
50373152001	**MW-40B**	EPA 7470	791511	EPA 7470	792180
50373152002	**MW-40A**	EPA 7470	791511	EPA 7470	792180
50373152001	**MW-40B**	EPA 903.1	669509		
50373152002	**MW-40A**	EPA 903.1	669509		
50373152001	**MW-40B**	EPA 904.0	669510		
50373152002	**MW-40A**	EPA 904.0	669510		
50373152001	**MW-40B**	Total Radium Calculation	674070		
50373152002	**MW-40A**	Total Radium Calculation	674070		
50373152001	**MW-40B**	SM 2320B	790686		
50373152002	**MW-40A**	SM 2320B	790686		
50373152001	**MW-40B**	SM 2540C	790834		
50373152002	**MW-40A**	SM 2540C	790834		
50373152001	**MW-40B**	SM 4500-H+B	791407		
50373152002	**MW-40A**	SM 4500-H+B	791407		
50373152001	**MW-40B**	SM 4500-S2-D	791181		
50373152002	**MW-40A**	SM 4500-S2-D	790420		
50373152001	**MW-40B**	EPA 353.2	790246		
50373152002	**MW-40A**	EPA 353.2	790246		
50373152001	**MW-40B**	EPA 365.1	792472	EPA 365.1	792887
50373152002	**MW-40A**	EPA 365.1	792472	EPA 365.1	792887
50373152001	**MW-40B**	SM 5310C	792095		
50373152002	**MW-40A**	SM 5310C	792095		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg May 2024 P4R4	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:		Pace Profile #:	

Regulatory Agency

State / Location: IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO3 Wet	(Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity,pH	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum			Residual Chlorine (Y/N)	50373152
																						Y			Y				
1	MW-40B	WT	G			5/14/24	1155		10	X	X	X		X					X	X	X	X	X	X	X	X	X			001
2	MW-40A	WT	G			5/14/24	1305		10	X	X	X		X					X	X	X	X	X	X	X	X	X			002
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Metals: 6010 (B, Cd, Cr, Fe, Pb, Mo, Ca, Mg, Na, K, Li) (11)	John O'Brien	5/15/24	7.30 AM	Jay Williams	5/15/24	7.30				
6020 (Be, Mn, Co, As, Se, Sb, Ba, Tl) (8), 7470 (Hg)	Jay Williams	5/15/24	9.50 AM	[illegible]	5/15/24	900	1.1	Y	N	Y
* Dissolved FF 6010 (B, Mo, Mg, K, Li) (5) FF 6020 (Al) (1)										
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	John O'Brien					
SIGNATURE of SAMPLER:	John O'Brien	DATE Signed: 5-14-24				

F-IN-Q-290-rev.26, 30Apr2024

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 5/15/24 1139 MW

1. Courier: ☐ FED EX | UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT | OTHER _____

2. Custody Seal on Cooler/Box Present: | | Yes ☑ No

(If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**

3. Thermometer: 1 2 3 4 5 6 7 8 A B C D E F G H

4. Cooler Temperature(s): 1.1 / 1.1 | | |

(Initial/Corrected) **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**

5. Packing Material: | ✓ Bubble Wrap | ✓ Bubble Bags | | None | | Other _____

6. Ice Type: ☑ Wet ☐ Blue ☐ None

7. Was the PM notified of out of temp cooler?: | | Yes ☐ No

Cooler temp should be above freezing to 6°C

8. EZ Bottle Order? | Yes ✓ No

If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? **Analysis:** NO3	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 1241		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A ✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix
1													1			2	1	2	1	1	1		1					WT
2													1			1	1	1	1	1	1		1					1
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
Red	Yellow	Green	Black
HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
✓	✓		✓

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

July 24, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 16, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50373325001	**MW-39I**	Water	05/15/24 10:05	05/16/24 09:45
50373325002	**MW-39A**	Water	05/15/24 11:05	05/16/24 09:45
50373325003	**MW-39B**	Water	05/15/24 11:55	05/16/24 09:45
50373325004	**MW-38I**	Water	05/15/24 12:55	05/16/24 09:45
50373325005	**MW-38B**	Water	05/15/24 14:25	05/16/24 09:45
50373325006	**MW-38A**	Water	05/15/24 15:15	05/16/24 09:45
50373325007	**DUP-11**	Water	05/15/24 08:00	05/16/24 09:45

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50373325001	**MW-39I**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	ABH	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	MTM	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	JTR	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50373325002	**MW-39A**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	ABH	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	MTM	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	JTR	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50373325003	**MW-39B**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	ABH	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	MTM	1	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	JTR	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50373325004	**MW-38I**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	ABH	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	MTM	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	JTR	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50373325005	**MW-38B**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	ABH	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	MTM	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	JTR	3	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50373325006	**MW-38A**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	ABH	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	MTM	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	JTR	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50373325007	**DUP-11**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	ABH	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	MTM	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	JTR	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 5310C	YAM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50373325001	**MW-39I**					
EPA 9056	Chloride	111	mg/L	2.5	05/26/24 01:58	
EPA 9056	Sulfate	1630	mg/L	25.0	05/26/24 02:15	
EPA 6010	Boron	20900	ug/L	100	05/22/24 00:08	
EPA 6010	Calcium	639000	ug/L	5000	05/22/24 00:28	
EPA 6010	Iron	9700	ug/L	100	05/22/24 00:08	
EPA 6010	Magnesium	49800	ug/L	1000	05/22/24 00:08	
EPA 6010	Molybdenum	190	ug/L	10.0	05/22/24 00:08	
EPA 6010	Potassium	11300	ug/L	1000	05/22/24 00:08	
EPA 6010	Sodium	45100	ug/L	1000	05/22/24 00:08	
EPA 6010	Boron, Dissolved	20300	ug/L	100	05/29/24 20:14	
EPA 6010	Magnesium, Dissolved	48600	ug/L	1000	05/29/24 20:14	
EPA 6010	Molybdenum, Dissolved	178	ug/L	10.0	05/29/24 20:14	
EPA 6010	Potassium, Dissolved	10900	ug/L	1000	05/29/24 20:14	
EPA 6020	Barium	30.0	ug/L	1.0	05/22/24 17:21	
EPA 6020	Manganese	2500	ug/L	20.0	05/30/24 07:29	
EPA 903.1	Radium-226	0.626 ± 0.717 (1.18) C:NA T:91%	pCi/L		06/07/24 14:55	
EPA 904.0	Radium-228	0.754 ± 0.467 (0.849) C:84% T:85%	pCi/L		06/04/24 15:25	
Total Radium Calculation	Total Radium	1.38 ± 1.18 (2.03)	pCi/L		06/10/24 11:30	
SM 2320B	Alkalinity, Total as CaCO3	133	mg/L	10.0	05/21/24 15:27	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	133	mg/L	10.0	05/21/24 15:27	
SM 2540C	Total Dissolved Solids	2700	mg/L	40.0	05/21/24 12:28	
SM 4500-H+B	pH at 25 Degrees C	6.7	Std. Units	0.10	05/24/24 14:16	H3
EPA 365.1	Phosphate as P04	0.34	mg/L	0.15	05/30/24 15:25	
SM 5310C	Dissolved Organic Carbon	2.3	mg/L	1.0	05/25/24 22:54	
50373325002	**MW-39A**					
EPA 9056	Chloride	137	mg/L	2.5	05/26/24 02:49	
EPA 9056	Sulfate	1700	mg/L	25.0	05/26/24 03:06	
EPA 6010	Boron	23100	ug/L	100	05/22/24 00:10	
EPA 6010	Calcium	633000	ug/L	5000	05/22/24 00:30	
EPA 6010	Iron	10200	ug/L	100	05/22/24 00:10	
EPA 6010	Magnesium	55700	ug/L	1000	05/22/24 00:10	
EPA 6010	Molybdenum	343	ug/L	10.0	05/22/24 00:10	
EPA 6010	Potassium	9070	ug/L	1000	05/22/24 00:10	
EPA 6010	Sodium	52600	ug/L	1000	05/22/24 00:10	
EPA 6010	Boron, Dissolved	22500	ug/L	100	05/29/24 20:15	
EPA 6010	Magnesium, Dissolved	53800	ug/L	1000	05/29/24 20:15	
EPA 6010	Molybdenum, Dissolved	333	ug/L	10.0	05/29/24 20:15	
EPA 6010	Potassium, Dissolved	9590	ug/L	1000	05/29/24 20:15	
EPA 6020	Barium	25.2	ug/L	1.0	05/22/24 17:25	
EPA 6020	Manganese	2140	ug/L	20.0	05/30/24 07:33	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50373325002	**MW-39A**					
EPA 903.1	Radium-226	-0.181 ± 0.591 (1.21) C:NA T:88%	pCi/L		06/07/24 14:55	
EPA 904.0	Radium-228	1.46 ± 0.488 (0.631) C:86% T:87%	pCi/L		06/04/24 15:25	
Total Radium Calculation	Total Radium	1.46 ± 1.08 (1.84)	pCi/L		06/10/24 11:30	
SM 2320B	Alkalinity, Total as CaCO3	146	mg/L	10.0	05/21/24 15:27	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	146	mg/L	10.0	05/21/24 15:27	
SM 2540C	Total Dissolved Solids	2670	mg/L	40.0	05/21/24 12:29	
SM 4500-H+B	pH at 25 Degrees C	6.5	Std. Units	0.10	05/24/24 14:17	H3
EPA 353.2	Nitrogen, Nitrate	0.15	mg/L	0.10	05/16/24 23:55	
EPA 365.1	Phosphate as P04	0.22	mg/L	0.15	05/30/24 15:26	
SM 5310C	Dissolved Organic Carbon	2.1	mg/L	1.0	05/25/24 23:05	
50373325003	**MW-39B**					
EPA 9056	Chloride	35.7	mg/L	2.5	05/26/24 03:39	
EPA 9056	Fluoride	0.12	mg/L	0.10	05/26/24 03:23	
EPA 9056	Sulfate	490	mg/L	25.0	05/26/24 03:56	
EPA 6010	Boron	4560	ug/L	100	05/22/24 00:11	
EPA 6010	Calcium	254000	ug/L	2000	05/22/24 00:31	
EPA 6010	Iron	111	ug/L	100	05/22/24 00:11	
EPA 6010	Magnesium	46800	ug/L	1000	05/22/24 00:11	
EPA 6010	Potassium	1420	ug/L	1000	05/22/24 00:11	
EPA 6010	Sodium	15200	ug/L	1000	05/22/24 00:11	
EPA 6010	Boron, Dissolved	4500	ug/L	100	05/29/24 20:17	
EPA 6010	Magnesium, Dissolved	45500	ug/L	1000	05/29/24 20:17	
EPA 6010	Potassium, Dissolved	1480	ug/L	1000	05/29/24 20:17	
EPA 6020	Barium	78.3	ug/L	1.0	05/22/24 17:28	
EPA 6020	Manganese	1010	ug/L	10.0	05/30/24 07:36	
EPA 903.1	Radium-226	0.432 ± 0.749 (1.31) C:NA T:89%	pCi/L		06/07/24 14:55	
EPA 904.0	Radium-228	0.444 ± 0.335 (0.656) C:87% T:87%	pCi/L		06/04/24 15:25	
Total Radium Calculation	Total Radium	0.876 ± 1.08 (1.97)	pCi/L		06/10/24 11:30	
SM 2320B	Alkalinity, Total as CaCO3	335	mg/L	10.0	05/21/24 15:27	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	335	mg/L	10.0	05/21/24 15:27	
SM 2540C	Total Dissolved Solids	1110	mg/L	20.0	05/21/24 12:29	
SM 4500-H+B	pH at 25 Degrees C	6.9	Std. Units	0.10	05/24/24 14:18	H3
EPA 353.2	Nitrogen, Nitrate	0.21	mg/L	0.10	05/17/24 00:00	
SM 5310C	Dissolved Organic Carbon	1.8	mg/L	1.0	05/25/24 23:15	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50373325004	**MW-38I**					
EPA 9056	Chloride	115	mg/L	2.5	05/26/24 05:04	
EPA 9056	Sulfate	1680	mg/L	25.0	05/26/24 05:21	
EPA 6010	Boron	15500	ug/L	100	05/22/24 00:17	
EPA 6010	Calcium	673000	ug/L	5000	05/22/24 00:33	
EPA 6010	Iron	7130	ug/L	100	05/22/24 00:17	
EPA 6010	Magnesium	28100	ug/L	1000	05/22/24 00:17	
EPA 6010	Molybdenum	255	ug/L	10.0	05/22/24 00:17	
EPA 6010	Potassium	8670	ug/L	1000	05/22/24 00:17	
EPA 6010	Sodium	34900	ug/L	1000	05/22/24 00:17	
EPA 6010	Boron, Dissolved	14900	ug/L	100	05/29/24 20:19	
EPA 6010	Magnesium, Dissolved	26600	ug/L	1000	05/29/24 20:19	
EPA 6010	Molybdenum, Dissolved	240	ug/L	10.0	05/29/24 20:19	
EPA 6010	Potassium, Dissolved	8450	ug/L	1000	05/29/24 20:19	
EPA 6020	Barium	26.2	ug/L	1.0	05/22/24 17:39	
EPA 6020	Manganese	2710	ug/L	20.0	05/30/24 07:39	
EPA 903.1	Radium-226	0.0567 ± 0.578 (1.10) C:NA T:94%	pCi/L		06/07/24 14:55	
EPA 904.0	Radium-228	0.780 ± 0.340 (0.536) C:98% T:85%	pCi/L		06/04/24 15:25	
Total Radium Calculation	Total Radium	0.837 ± 0.918 (1.64)	pCi/L		06/10/24 11:30	
SM 2320B	Alkalinity, Total as CaCO3	98.6	mg/L	10.0	05/21/24 15:27	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	98.6	mg/L	10.0	05/21/24 15:27	
SM 2540C	Total Dissolved Solids	2500	mg/L	40.0	05/21/24 12:29	
SM 4500-H+B	pH at 25 Degrees C	6.7	Std. Units	0.10	05/24/24 14:18	H3
EPA 365.1	Phosphate as P04	0.26	mg/L	0.15	05/30/24 15:27	
SM 5310C	Dissolved Organic Carbon	2.0	mg/L	1.0	05/25/24 23:25	
50373325005	**MW-38B**					
EPA 9056	Chloride	57.4	mg/L	2.5	05/26/24 05:54	
EPA 9056	Sulfate	890	mg/L	25.0	05/26/24 06:11	
EPA 6010	Boron	7290	ug/L	100	05/22/24 00:19	
EPA 6010	Calcium	413000	ug/L	5000	05/22/24 00:38	
EPA 6010	Iron	135	ug/L	100	05/22/24 00:19	
EPA 6010	Magnesium	43000	ug/L	1000	05/22/24 00:19	
EPA 6010	Potassium	2370	ug/L	1000	05/22/24 00:19	
EPA 6010	Sodium	20100	ug/L	1000	05/22/24 00:19	
EPA 6010	Boron, Dissolved	7960	ug/L	100	05/29/24 20:20	
EPA 6010	Magnesium, Dissolved	41800	ug/L	1000	05/29/24 20:20	
EPA 6010	Potassium, Dissolved	2770	ug/L	1000	05/29/24 20:20	
EPA 6020	Barium	45.8	ug/L	1.0	05/22/24 17:42	
EPA 6020	Manganese	1060	ug/L	10.0	05/30/24 07:43	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50373325005	**MW-38B**					
EPA 903.1	Radium-226	0.0648 ± 0.730 (1.38) C:NA T:82%	pCi/L		06/07/24 14:55	
EPA 904.0	Radium-228	-0.0126 ± 0.279 (0.656) C:93% T:82%	pCi/L		06/04/24 15:25	
Total Radium Calculation	Total Radium	0.0648 ± 1.01 (2.04)	pCi/L		06/10/24 11:30	
SM 2320B	Alkalinity, Total as CaCO3	229	mg/L	10.0	05/21/24 15:27	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	229	mg/L	10.0	05/21/24 15:27	
SM 2540C	Total Dissolved Solids	1640	mg/L	20.0	05/21/24 12:29	
SM 4500-H+B	pH at 25 Degrees C	6.9	Std. Units	0.10	05/24/24 14:19	H3
EPA 353.2	Nitrogen, Nitrate	0.23	mg/L	0.10	05/17/24 00:25	
SM 5310C	Dissolved Organic Carbon	1.7	mg/L	1.0	05/25/24 23:36	
50373325006	**MW-38A**					
EPA 9056	Chloride	115	mg/L	2.5	05/26/24 06:45	
EPA 9056	Sulfate	1710	mg/L	25.0	05/26/24 07:02	
EPA 6010	Boron	17200	ug/L	100	05/22/24 00:21	
EPA 6010	Calcium	645000	ug/L	5000	05/22/24 00:40	
EPA 6010	Iron	7670	ug/L	100	05/22/24 00:21	
EPA 6010	Magnesium	40800	ug/L	1000	05/22/24 00:21	
EPA 6010	Molybdenum	354	ug/L	10.0	05/22/24 00:21	
EPA 6010	Potassium	8530	ug/L	1000	05/22/24 00:21	
EPA 6010	Sodium	37600	ug/L	1000	05/22/24 00:21	
EPA 6010	Boron, Dissolved	16700	ug/L	100	05/29/24 20:22	
EPA 6010	Magnesium, Dissolved	39500	ug/L	1000	05/29/24 20:22	
EPA 6010	Molybdenum, Dissolved	341	ug/L	10.0	05/29/24 20:22	
EPA 6010	Potassium, Dissolved	8470	ug/L	1000	05/29/24 20:22	
EPA 6020	Barium	26.9	ug/L	1.0	05/22/24 17:46	
EPA 6020	Manganese	2490	ug/L	20.0	05/30/24 07:46	
EPA 903.1	Radium-226	0.341 ± 0.569 (0.990) C:NA T:95%	pCi/L		06/07/24 15:06	
EPA 904.0	Radium-228	0.961 ± 0.414 (0.678) C:90% T:87%	pCi/L		06/04/24 15:25	
Total Radium Calculation	Total Radium	1.30 ± 0.983 (1.67)	pCi/L		06/10/24 11:30	
SM 2320B	Alkalinity, Total as CaCO3	108	mg/L	10.0	05/21/24 15:27	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	108	mg/L	10.0	05/21/24 15:27	
SM 2540C	Total Dissolved Solids	2720	mg/L	20.0	05/21/24 12:31	
SM 4500-H+B	pH at 25 Degrees C	6.8	Std. Units	0.10	05/24/24 14:20	H3
EPA 365.1	Phosphate as P04	0.29	mg/L	0.15	05/30/24 15:28	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50373325006	**MW-38A**					
SM 5310C	Dissolved Organic Carbon	1.9	mg/L	1.0	05/25/24 23:53	
50373325007	**DUP-11**					
EPA 9056	Chloride	110	mg/L	2.5	05/28/24 17:54	
EPA 9056	Sulfate	1610	mg/L	25.0	05/28/24 18:10	
EPA 6010	Boron	17100	ug/L	100	05/22/24 00:22	
EPA 6010	Calcium	653000	ug/L	5000	05/22/24 00:42	
EPA 6010	Iron	7690	ug/L	100	05/22/24 00:22	
EPA 6010	Magnesium	40900	ug/L	1000	05/22/24 00:22	
EPA 6010	Molybdenum	356	ug/L	10.0	05/22/24 00:22	
EPA 6010	Potassium	8640	ug/L	1000	05/22/24 00:22	
EPA 6010	Sodium	37800	ug/L	1000	05/22/24 00:22	
EPA 6010	Boron, Dissolved	17200	ug/L	100	05/29/24 20:24	
EPA 6010	Magnesium, Dissolved	40000	ug/L	1000	05/29/24 20:24	
EPA 6010	Molybdenum, Dissolved	348	ug/L	10.0	05/29/24 20:24	
EPA 6010	Potassium, Dissolved	8570	ug/L	1000	05/29/24 20:24	
EPA 6020	Barium	26.5	ug/L	1.0	05/22/24 17:49	
EPA 6020	Manganese	2500	ug/L	20.0	05/30/24 07:50	
EPA 903.1	Radium-226	0.125 ± 0.458 (0.881) C:NA T:87%	pCi/L		06/07/24 15:06	
EPA 904.0	Radium-228	1.19 ± 0.461 (0.718) C:87% T:88%	pCi/L		06/04/24 15:26	
Total Radium Calculation	Total Radium	1.32 ± 0.919 (1.60)	pCi/L		06/10/24 11:30	
SM 2320B	Alkalinity, Total as CaCO3	107	mg/L	10.0	05/21/24 15:27	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	107	mg/L	10.0	05/21/24 15:27	
SM 2540C	Total Dissolved Solids	2600	mg/L	20.0	05/21/24 12:31	
SM 4500-H+B	pH at 25 Degrees C	6.8	Std. Units	0.10	05/24/24 14:20	H3
EPA 365.1	Phosphate as P04	0.35	mg/L	0.15	05/30/24 15:28	
SM 5310C	Dissolved Organic Carbon	2.4	mg/L	1.0	05/26/24 00:04	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Sample: MW-39I **Lab ID: 50373325001** Collected: 05/15/24 10:05 Received: 05/16/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**111**	mg/L	2.5	0.67	10		05/26/24 01:58	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/26/24 01:42	16984-48-8	
Sulfate	**1630**	mg/L	25.0	19.0	100		05/26/24 02:15	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**20900**	ug/L	100	6.2	1	05/21/24 08:19	05/22/24 00:08	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/21/24 08:19	05/22/24 00:08	7440-43-9	
Calcium	**639000**	ug/L	5000	338	5	05/21/24 08:19	05/22/24 00:28	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/21/24 08:19	05/22/24 00:08	7440-47-3	
Iron	**9700**	ug/L	100	30.0	1	05/21/24 08:19	05/22/24 00:08	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/21/24 08:19	05/22/24 00:08	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/21/24 08:19	05/22/24 00:08	7439-93-2	
Magnesium	**49800**	ug/L	1000	33.6	1	05/21/24 08:19	05/22/24 00:08	7439-95-4	
Molybdenum	**190**	ug/L	10.0	0.78	1	05/21/24 08:19	05/22/24 00:08	7439-98-7	
Potassium	**11300**	ug/L	1000	97.8	1	05/21/24 08:19	05/22/24 00:08	7440-09-7	
Sodium	**45100**	ug/L	1000	54.8	1	05/21/24 08:19	05/22/24 00:08	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**20300**	ug/L	100	11.4	1	05/22/24 21:57	05/29/24 20:14	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	05/22/24 21:57	05/29/24 20:14	7439-93-2	
Magnesium, Dissolved	**48600**	ug/L	1000	32.8	1	05/22/24 21:57	05/29/24 20:14	7439-95-4	
Molybdenum, Dissolved	**178**	ug/L	10.0	1.1	1	05/22/24 21:57	05/29/24 20:14	7439-98-7	
Potassium, Dissolved	**10900**	ug/L	1000	120	1	05/22/24 21:57	05/29/24 20:14	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.27	1	05/21/24 15:19	05/22/24 17:21	7440-36-0	
Arsenic	ND	ug/L	1.0	0.11	1	05/21/24 15:19	05/30/24 13:30	7440-38-2	
Barium	**30.0**	ug/L	1.0	0.090	1	05/21/24 15:19	05/22/24 17:21	7440-39-3	
Beryllium	ND	ug/L	0.20	0.030	1	05/21/24 15:19	05/22/24 17:21	7440-41-7	
Cobalt	ND	ug/L	1.0	0.16	1	05/21/24 15:19	05/22/24 17:21	7440-48-4	
Manganese	**2500**	ug/L	20.0	5.2	20	05/21/24 15:19	05/30/24 07:29	7439-96-5	
Selenium	ND	ug/L	1.0	0.22	1	05/21/24 15:19	05/30/24 13:30	7782-49-2	
Thallium	ND	ug/L	1.0	0.043	1	05/21/24 15:19	05/22/24 17:21	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	05/22/24 07:12	05/23/24 23:49	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/28/24 12:45	05/28/24 21:37	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Sample: MW-39I **Lab ID: 50373325001** Collected: 05/15/24 10:05 Received: 05/16/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**133**	mg/L	10.0	10.0	1		05/21/24 15:27		
Alkalinity,Bicarbonate (CaCO3)	**133**	mg/L	10.0	10.0	1		05/21/24 15:27		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/21/24 15:27		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2700**	mg/L	40.0	40.0	1		05/21/24 12:28		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.7**	Std. Units	0.10	0.10	1		05/24/24 14:16		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/17/24 14:41	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/16/24 23:53	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.34**	mg/L	0.15	0.13	1	05/30/24 10:15	05/30/24 15:25		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.3**	mg/L	1.0	0.25	1		05/25/24 22:54		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Sample: MW-39A **Lab ID: 50373325002** Collected: 05/15/24 11:05 Received: 05/16/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**137**	mg/L	2.5	0.67	10		05/26/24 02:49	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/26/24 02:32	16984-48-8	
Sulfate	**1700**	mg/L	25.0	19.0	100		05/26/24 03:06	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**23100**	ug/L	100	6.2	1	05/21/24 08:19	05/22/24 00:10	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/21/24 08:19	05/22/24 00:10	7440-43-9	
Calcium	**633000**	ug/L	5000	338	5	05/21/24 08:19	05/22/24 00:30	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/21/24 08:19	05/22/24 00:10	7440-47-3	
Iron	**10200**	ug/L	100	30.0	1	05/21/24 08:19	05/22/24 00:10	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/21/24 08:19	05/22/24 00:10	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/21/24 08:19	05/22/24 00:10	7439-93-2	
Magnesium	**55700**	ug/L	1000	33.6	1	05/21/24 08:19	05/22/24 00:10	7439-95-4	
Molybdenum	**343**	ug/L	10.0	0.78	1	05/21/24 08:19	05/22/24 00:10	7439-98-7	
Potassium	**9070**	ug/L	1000	97.8	1	05/21/24 08:19	05/22/24 00:10	7440-09-7	
Sodium	**52600**	ug/L	1000	54.8	1	05/21/24 08:19	05/22/24 00:10	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**22500**	ug/L	100	11.4	1	05/22/24 21:57	05/29/24 20:15	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	05/22/24 21:57	05/29/24 20:15	7439-93-2	
Magnesium, Dissolved	**53800**	ug/L	1000	32.8	1	05/22/24 21:57	05/29/24 20:15	7439-95-4	
Molybdenum, Dissolved	**333**	ug/L	10.0	1.1	1	05/22/24 21:57	05/29/24 20:15	7439-98-7	
Potassium, Dissolved	**9590**	ug/L	1000	120	1	05/22/24 21:57	05/29/24 20:15	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.27	1	05/21/24 15:19	05/22/24 17:25	7440-36-0	
Arsenic	ND	ug/L	1.0	0.11	1	05/21/24 15:19	05/30/24 13:37	7440-38-2	
Barium	**25.2**	ug/L	1.0	0.090	1	05/21/24 15:19	05/22/24 17:25	7440-39-3	
Beryllium	ND	ug/L	0.20	0.030	1	05/21/24 15:19	05/22/24 17:25	7440-41-7	
Cobalt	ND	ug/L	1.0	0.16	1	05/21/24 15:19	05/22/24 17:25	7440-48-4	
Manganese	**2140**	ug/L	20.0	5.2	20	05/21/24 15:19	05/30/24 07:33	7439-96-5	
Selenium	ND	ug/L	1.0	0.22	1	05/21/24 15:19	05/30/24 13:37	7782-49-2	
Thallium	ND	ug/L	1.0	0.043	1	05/21/24 15:19	05/22/24 17:25	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	05/22/24 07:12	05/23/24 23:54	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/28/24 12:45	05/28/24 21:40	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Sample: MW-39A **Lab ID: 50373325002** Collected: 05/15/24 11:05 Received: 05/16/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**146**	mg/L	10.0	10.0	1		05/21/24 15:27		
Alkalinity,Bicarbonate (CaCO3)	**146**	mg/L	10.0	10.0	1		05/21/24 15:27		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/21/24 15:27		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2670**	mg/L	40.0	40.0	1		05/21/24 12:29		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.5**	Std. Units	0.10	0.10	1		05/24/24 14:17		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/17/24 14:41	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**0.15**	mg/L	0.10	0.013	1		05/16/24 23:55	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.22**	mg/L	0.15	0.13	1	05/30/24 10:15	05/30/24 15:26		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.1**	mg/L	1.0	0.25	1		05/25/24 23:05		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Sample: MW-39B **Lab ID: 50373325003** Collected: 05/15/24 11:55 Received: 05/16/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**35.7**	mg/L	2.5	0.67	10		05/26/24 03:39	16887-00-6	
Fluoride	**0.12**	mg/L	0.10	0.017	1		05/26/24 03:23	16984-48-8	
Sulfate	**490**	mg/L	25.0	19.0	100		05/26/24 03:56	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**4560**	ug/L	100	6.2	1	05/21/24 08:19	05/22/24 00:11	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/21/24 08:19	05/22/24 00:11	7440-43-9	
Calcium	**254000**	ug/L	2000	135	2	05/21/24 08:19	05/22/24 00:31	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/21/24 08:19	05/22/24 00:11	7440-47-3	
Iron	**111**	ug/L	100	30.0	1	05/21/24 08:19	05/22/24 00:11	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/21/24 08:19	05/22/24 00:11	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/21/24 08:19	05/22/24 00:11	7439-93-2	
Magnesium	**46800**	ug/L	1000	33.6	1	05/21/24 08:19	05/22/24 00:11	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	05/21/24 08:19	05/22/24 00:11	7439-98-7	
Potassium	**1420**	ug/L	1000	97.8	1	05/21/24 08:19	05/22/24 00:11	7440-09-7	
Sodium	**15200**	ug/L	1000	54.8	1	05/21/24 08:19	05/22/24 00:11	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**4500**	ug/L	100	11.4	1	05/22/24 21:57	05/29/24 20:17	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	05/22/24 21:57	05/29/24 20:17	7439-93-2	
Magnesium, Dissolved	**45500**	ug/L	1000	32.8	1	05/22/24 21:57	05/29/24 20:17	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	05/22/24 21:57	05/29/24 20:17	7439-98-7	
Potassium, Dissolved	**1480**	ug/L	1000	120	1	05/22/24 21:57	05/29/24 20:17	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.27	1	05/21/24 15:19	05/22/24 17:28	7440-36-0	
Arsenic	ND	ug/L	1.0	0.11	1	05/21/24 15:19	05/30/24 13:44	7440-38-2	
Barium	**78.3**	ug/L	1.0	0.090	1	05/21/24 15:19	05/22/24 17:28	7440-39-3	
Beryllium	ND	ug/L	0.20	0.030	1	05/21/24 15:19	05/22/24 17:28	7440-41-7	
Cobalt	ND	ug/L	1.0	0.16	1	05/21/24 15:19	05/22/24 17:28	7440-48-4	
Manganese	**1010**	ug/L	10.0	2.6	10	05/21/24 15:19	05/30/24 07:36	7439-96-5	
Selenium	ND	ug/L	1.0	0.22	1	05/21/24 15:19	05/30/24 13:44	7782-49-2	
Thallium	ND	ug/L	1.0	0.043	1	05/21/24 15:19	05/22/24 17:28	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	05/22/24 07:12	05/23/24 23:58	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/28/24 12:45	05/28/24 21:42	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Sample: MW-39B **Lab ID: 50373325003** Collected: 05/15/24 11:55 Received: 05/16/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**335**	mg/L	10.0	10.0	1		05/21/24 15:27		
Alkalinity,Bicarbonate (CaCO3)	**335**	mg/L	10.0	10.0	1		05/21/24 15:27		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/21/24 15:27		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1110**	mg/L	20.0	20.0	1		05/21/24 12:29		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.9**	Std. Units	0.10	0.10	1		05/24/24 14:18		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/17/24 14:41	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**0.21**	mg/L	0.10	0.013	1		05/17/24 00:00	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	05/30/24 10:15	05/30/24 15:26		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.8**	mg/L	1.0	0.25	1		05/25/24 23:15		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Sample: MW-38I **Lab ID: 50373325004** Collected: 05/15/24 12:55 Received: 05/16/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**115**	mg/L	2.5	0.67	10		05/26/24 05:04	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/26/24 04:47	16984-48-8	
Sulfate	**1680**	mg/L	25.0	19.0	100		05/26/24 05:21	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**15500**	ug/L	100	6.2	1	05/21/24 08:19	05/22/24 00:17	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/21/24 08:19	05/22/24 00:17	7440-43-9	
Calcium	**673000**	ug/L	5000	338	5	05/21/24 08:19	05/22/24 00:33	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/21/24 08:19	05/22/24 00:17	7440-47-3	
Iron	**7130**	ug/L	100	30.0	1	05/21/24 08:19	05/22/24 00:17	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/21/24 08:19	05/22/24 00:17	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/21/24 08:19	05/22/24 00:17	7439-93-2	
Magnesium	**28100**	ug/L	1000	33.6	1	05/21/24 08:19	05/22/24 00:17	7439-95-4	
Molybdenum	**255**	ug/L	10.0	0.78	1	05/21/24 08:19	05/22/24 00:17	7439-98-7	
Potassium	**8670**	ug/L	1000	97.8	1	05/21/24 08:19	05/22/24 00:17	7440-09-7	
Sodium	**34900**	ug/L	1000	54.8	1	05/21/24 08:19	05/22/24 00:17	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**14900**	ug/L	100	11.4	1	05/22/24 21:57	05/29/24 20:19	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	05/22/24 21:57	05/29/24 20:19	7439-93-2	
Magnesium, Dissolved	**26600**	ug/L	1000	32.8	1	05/22/24 21:57	05/29/24 20:19	7439-95-4	
Molybdenum, Dissolved	**240**	ug/L	10.0	1.1	1	05/22/24 21:57	05/29/24 20:19	7439-98-7	
Potassium, Dissolved	**8450**	ug/L	1000	120	1	05/22/24 21:57	05/29/24 20:19	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.27	1	05/21/24 15:19	05/22/24 17:39	7440-36-0	
Arsenic	ND	ug/L	1.0	0.11	1	05/21/24 15:19	05/22/24 17:39	7440-38-2	
Barium	**26.2**	ug/L	1.0	0.090	1	05/21/24 15:19	05/22/24 17:39	7440-39-3	
Beryllium	ND	ug/L	0.20	0.030	1	05/21/24 15:19	05/30/24 13:54	7440-41-7	
Cobalt	ND	ug/L	1.0	0.16	1	05/21/24 15:19	05/22/24 17:39	7440-48-4	
Manganese	**2710**	ug/L	20.0	5.2	20	05/21/24 15:19	05/30/24 07:39	7439-96-5	
Selenium	ND	ug/L	1.0	0.22	1	05/21/24 15:19	05/22/24 17:39	7782-49-2	
Thallium	ND	ug/L	1.0	0.043	1	05/21/24 15:19	05/22/24 17:39	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	05/22/24 07:12	05/24/24 00:02	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/28/24 12:45	05/28/24 21:54	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Sample: MW-38I **Lab ID: 50373325004** Collected: 05/15/24 12:55 Received: 05/16/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**98.6**	mg/L	10.0	10.0	1		05/21/24 15:27		
Alkalinity,Bicarbonate (CaCO3)	**98.6**	mg/L	10.0	10.0	1		05/21/24 15:27		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/21/24 15:27		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2500**	mg/L	40.0	40.0	1		05/21/24 12:29		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.7**	Std. Units	0.10	0.10	1		05/24/24 14:18		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/17/24 14:41	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/17/24 00:17	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.26**	mg/L	0.15	0.13	1	05/30/24 10:15	05/30/24 15:27		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.0**	mg/L	1.0	0.25	1		05/25/24 23:25		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Sample: MW-38B **Lab ID: 50373325005** Collected: 05/15/24 14:25 Received: 05/16/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**57.4**	mg/L	2.5	0.67	10		05/26/24 05:54	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/26/24 05:37	16984-48-8	
Sulfate	**890**	mg/L	25.0	19.0	100		05/26/24 06:11	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**7290**	ug/L	100	6.2	1	05/21/24 08:19	05/22/24 00:19	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/21/24 08:19	05/22/24 00:19	7440-43-9	
Calcium	**413000**	ug/L	5000	338	5	05/21/24 08:19	05/22/24 00:38	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/21/24 08:19	05/22/24 00:19	7440-47-3	
Iron	**135**	ug/L	100	30.0	1	05/21/24 08:19	05/22/24 00:19	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/21/24 08:19	05/22/24 00:19	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/21/24 08:19	05/22/24 00:19	7439-93-2	
Magnesium	**43000**	ug/L	1000	33.6	1	05/21/24 08:19	05/22/24 00:19	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	05/21/24 08:19	05/22/24 00:19	7439-98-7	
Potassium	**2370**	ug/L	1000	97.8	1	05/21/24 08:19	05/22/24 00:19	7440-09-7	
Sodium	**20100**	ug/L	1000	54.8	1	05/21/24 08:19	05/22/24 00:19	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**7960**	ug/L	100	11.4	1	05/22/24 21:57	05/29/24 20:20	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	05/22/24 21:57	05/29/24 20:20	7439-93-2	
Magnesium, Dissolved	**41800**	ug/L	1000	32.8	1	05/22/24 21:57	05/29/24 20:20	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	05/22/24 21:57	05/29/24 20:20	7439-98-7	
Potassium, Dissolved	**2770**	ug/L	1000	120	1	05/22/24 21:57	05/29/24 20:20	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.27	1	05/21/24 15:19	05/22/24 17:42	7440-36-0	
Arsenic	ND	ug/L	1.0	0.11	1	05/21/24 15:19	05/22/24 17:42	7440-38-2	
Barium	**45.8**	ug/L	1.0	0.090	1	05/21/24 15:19	05/22/24 17:42	7440-39-3	
Beryllium	ND	ug/L	0.20	0.030	1	05/21/24 15:19	05/30/24 14:01	7440-41-7	
Cobalt	ND	ug/L	1.0	0.16	1	05/21/24 15:19	05/22/24 17:42	7440-48-4	
Manganese	**1060**	ug/L	10.0	2.6	10	05/21/24 15:19	05/30/24 07:43	7439-96-5	
Selenium	ND	ug/L	1.0	0.22	1	05/21/24 15:19	05/22/24 17:42	7782-49-2	
Thallium	ND	ug/L	1.0	0.043	1	05/21/24 15:19	05/22/24 17:42	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	05/22/24 07:12	05/24/24 00:14	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/28/24 12:45	05/28/24 21:57	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Sample: MW-38B **Lab ID: 50373325005** Collected: 05/15/24 14:25 Received: 05/16/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**229**	mg/L	10.0	10.0	1		05/21/24 15:27		
Alkalinity,Bicarbonate (CaCO3)	**229**	mg/L	10.0	10.0	1		05/21/24 15:27		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/21/24 15:27		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1640**	mg/L	20.0	20.0	1		05/21/24 12:29		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.9**	Std. Units	0.10	0.10	1		05/24/24 14:19		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/17/24 14:41	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**0.23**	mg/L	0.10	0.013	1		05/17/24 00:25	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	05/30/24 10:15	05/30/24 15:27		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.7**	mg/L	1.0	0.25	1		05/25/24 23:36		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Sample: MW-38A **Lab ID: 50373325006** Collected: 05/15/24 15:15 Received: 05/16/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**115**	mg/L	2.5	0.67	10		05/26/24 06:45	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/26/24 06:28	16984-48-8	
Sulfate	**1710**	mg/L	25.0	19.0	100		05/26/24 07:02	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**17200**	ug/L	100	6.2	1	05/21/24 08:19	05/22/24 00:21	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/21/24 08:19	05/22/24 00:21	7440-43-9	
Calcium	**645000**	ug/L	5000	338	5	05/21/24 08:19	05/22/24 00:40	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/21/24 08:19	05/22/24 00:21	7440-47-3	
Iron	**7670**	ug/L	100	30.0	1	05/21/24 08:19	05/22/24 00:21	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/21/24 08:19	05/22/24 00:21	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/21/24 08:19	05/22/24 00:21	7439-93-2	
Magnesium	**40800**	ug/L	1000	33.6	1	05/21/24 08:19	05/22/24 00:21	7439-95-4	
Molybdenum	**354**	ug/L	10.0	0.78	1	05/21/24 08:19	05/22/24 00:21	7439-98-7	
Potassium	**8530**	ug/L	1000	97.8	1	05/21/24 08:19	05/22/24 00:21	7440-09-7	
Sodium	**37600**	ug/L	1000	54.8	1	05/21/24 08:19	05/22/24 00:21	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**16700**	ug/L	100	11.4	1	05/22/24 21:57	05/29/24 20:22	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	05/22/24 21:57	05/29/24 20:22	7439-93-2	
Magnesium, Dissolved	**39500**	ug/L	1000	32.8	1	05/22/24 21:57	05/29/24 20:22	7439-95-4	
Molybdenum, Dissolved	**341**	ug/L	10.0	1.1	1	05/22/24 21:57	05/29/24 20:22	7439-98-7	
Potassium, Dissolved	**8470**	ug/L	1000	120	1	05/22/24 21:57	05/29/24 20:22	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.27	1	05/21/24 15:19	05/22/24 17:46	7440-36-0	
Arsenic	ND	ug/L	1.0	0.11	1	05/21/24 15:19	05/22/24 17:46	7440-38-2	
Barium	**26.9**	ug/L	1.0	0.090	1	05/21/24 15:19	05/22/24 17:46	7440-39-3	
Beryllium	ND	ug/L	0.20	0.030	1	05/21/24 15:19	05/30/24 14:08	7440-41-7	
Cobalt	ND	ug/L	1.0	0.16	1	05/21/24 15:19	05/22/24 17:46	7440-48-4	
Manganese	**2490**	ug/L	20.0	5.2	20	05/21/24 15:19	05/30/24 07:46	7439-96-5	
Selenium	ND	ug/L	1.0	0.22	1	05/21/24 15:19	05/22/24 17:46	7782-49-2	
Thallium	ND	ug/L	1.0	0.043	1	05/21/24 15:19	05/22/24 17:46	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	05/22/24 07:12	05/24/24 00:18	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/28/24 12:45	05/28/24 21:59	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Sample: MW-38A **Lab ID: 50373325006** Collected: 05/15/24 15:15 Received: 05/16/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**108**	mg/L	10.0	10.0	1		05/21/24 15:27		
Alkalinity,Bicarbonate (CaCO3)	**108**	mg/L	10.0	10.0	1		05/21/24 15:27		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/21/24 15:27		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2720**	mg/L	20.0	20.0	1		05/21/24 12:31		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.8**	Std. Units	0.10	0.10	1		05/24/24 14:20		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/17/24 14:41	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/17/24 00:36	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.29**	mg/L	0.15	0.13	1	05/30/24 10:15	05/30/24 15:28		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.9**	mg/L	1.0	0.25	1		05/25/24 23:53		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Sample: DUP-11 **Lab ID: 50373325007** Collected: 05/15/24 08:00 Received: 05/16/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**110**	mg/L	2.5	0.67	10		05/28/24 17:54	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/26/24 07:19	16984-48-8	
Sulfate	**1610**	mg/L	25.0	19.0	100		05/28/24 18:10	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**17100**	ug/L	100	6.2	1	05/21/24 08:19	05/22/24 00:22	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/21/24 08:19	05/22/24 00:22	7440-43-9	
Calcium	**653000**	ug/L	5000	338	5	05/21/24 08:19	05/22/24 00:42	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/21/24 08:19	05/22/24 00:22	7440-47-3	
Iron	**7690**	ug/L	100	30.0	1	05/21/24 08:19	05/22/24 00:22	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/21/24 08:19	05/22/24 00:22	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/21/24 08:19	05/22/24 00:22	7439-93-2	
Magnesium	**40900**	ug/L	1000	33.6	1	05/21/24 08:19	05/22/24 00:22	7439-95-4	
Molybdenum	**356**	ug/L	10.0	0.78	1	05/21/24 08:19	05/22/24 00:22	7439-98-7	
Potassium	**8640**	ug/L	1000	97.8	1	05/21/24 08:19	05/22/24 00:22	7440-09-7	
Sodium	**37800**	ug/L	1000	54.8	1	05/21/24 08:19	05/22/24 00:22	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**17200**	ug/L	100	11.4	1	05/22/24 21:57	05/29/24 20:24	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	05/22/24 21:57	05/29/24 20:24	7439-93-2	
Magnesium, Dissolved	**40000**	ug/L	1000	32.8	1	05/22/24 21:57	05/29/24 20:24	7439-95-4	
Molybdenum, Dissolved	**348**	ug/L	10.0	1.1	1	05/22/24 21:57	05/29/24 20:24	7439-98-7	
Potassium, Dissolved	**8570**	ug/L	1000	120	1	05/22/24 21:57	05/29/24 20:24	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.27	1	05/21/24 15:19	05/22/24 17:49	7440-36-0	
Arsenic	ND	ug/L	1.0	0.11	1	05/21/24 15:19	05/22/24 17:49	7440-38-2	
Barium	**26.5**	ug/L	1.0	0.090	1	05/21/24 15:19	05/22/24 17:49	7440-39-3	
Beryllium	ND	ug/L	0.20	0.030	1	05/21/24 15:19	05/30/24 14:18	7440-41-7	
Cobalt	ND	ug/L	1.0	0.16	1	05/21/24 15:19	05/22/24 17:49	7440-48-4	
Manganese	**2500**	ug/L	20.0	5.2	20	05/21/24 15:19	05/30/24 07:50	7439-96-5	
Selenium	ND	ug/L	1.0	0.22	1	05/21/24 15:19	05/22/24 17:49	7782-49-2	
Thallium	ND	ug/L	1.0	0.043	1	05/21/24 15:19	05/22/24 17:49	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	05/22/24 07:12	05/24/24 00:22	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/28/24 12:45	05/28/24 22:02	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Sample: DUP-11 **Lab ID: 50373325007** Collected: 05/15/24 08:00 Received: 05/16/24 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**107**	mg/L	10.0	10.0	1		05/21/24 15:27		
Alkalinity,Bicarbonate (CaCO3)	**107**	mg/L	10.0	10.0	1		05/21/24 15:27		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/21/24 15:27		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2600**	mg/L	20.0	20.0	1		05/21/24 12:31		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.8**	Std. Units	0.10	0.10	1		05/24/24 14:20		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/17/24 14:41	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/16/24 23:51	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.35**	mg/L	0.15	0.13	1	05/30/24 10:15	05/30/24 15:28		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.4**	mg/L	1.0	0.25	1		05/26/24 00:04		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

QC Batch: 791646
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373325001, 50373325002, 50373325003, 50373325004, 50373325005, 50373325006, 50373325007

METHOD BLANK: 3622491 Matrix: Water
Associated Lab Samples: 50373325001, 50373325002, 50373325003, 50373325004, 50373325005, 50373325006, 50373325007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/25/24 15:51	
Fluoride	mg/L	ND	0.10	0.017	05/25/24 15:51	
Sulfate	mg/L	ND	0.25	0.19	05/25/24 15:51	

LABORATORY CONTROL SAMPLE: 3622492

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	97	80-120	
Fluoride	mg/L	1	1.1	108	80-120	
Sulfate	mg/L	5	5.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3622493 3622494

Parameter	Units	50373251001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	23.5	25	25	48.2	47.8	99	97	80-120	1	15	
Fluoride	mg/L	ND	1	1	1.2	1.2	121	123	80-120	1	15	M0
Sulfate	mg/L	1070	500	500	1560	1560	97	97	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

QC Batch: 791667
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373325001, 50373325002, 50373325003, 50373325004, 50373325005, 50373325006, 50373325007

METHOD BLANK: 3622592 Matrix: Water
Associated Lab Samples: 50373325001, 50373325002, 50373325003, 50373325004, 50373325005, 50373325006, 50373325007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	05/28/24 21:13	

LABORATORY CONTROL SAMPLE: 3622593

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3622594 3622595

Parameter	Units	50373325003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.7	4.7	94	94	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

QC Batch: 790819
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373325001, 50373325002, 50373325003, 50373325004, 50373325005, 50373325006, 50373325007

METHOD BLANK: 3618966 Matrix: Water
Associated Lab Samples: 50373325001, 50373325002, 50373325003, 50373325004, 50373325005, 50373325006, 50373325007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	05/21/24 23:35	
Cadmium	ug/L	ND	2.0	0.60	05/21/24 23:35	
Calcium	ug/L	ND	1000	67.7	05/21/24 23:35	
Chromium	ug/L	ND	10.0	0.42	05/21/24 23:35	
Iron	ug/L	ND	100	30.0	05/21/24 23:35	
Lead	ug/L	ND	10.0	2.5	05/21/24 23:35	
Lithium	ug/L	ND	20.0	6.8	05/21/24 23:35	
Magnesium	ug/L	ND	1000	33.6	05/21/24 23:35	
Molybdenum	ug/L	ND	10.0	0.78	05/21/24 23:35	
Potassium	ug/L	ND	1000	97.8	05/21/24 23:35	
Sodium	ug/L	ND	1000	54.8	05/21/24 23:35	

LABORATORY CONTROL SAMPLE: 3618967

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	973	97	80-120	
Cadmium	ug/L	1000	966	97	80-120	
Calcium	ug/L	10000	9960	100	80-120	
Chromium	ug/L	1000	982	98	80-120	
Iron	ug/L	10000	9690	97	80-120	
Lead	ug/L	1000	957	96	80-120	
Lithium	ug/L	1000	1000	100	80-120	
Magnesium	ug/L	10000	9660	97	80-120	
Molybdenum	ug/L	1000	1020	102	80-120	
Potassium	ug/L	10000	9880	99	80-120	
Sodium	ug/L	10000	9770	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3618968 3618969

Parameter	Units	50373598007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	1070	1000	1000	2060	2060	99	99	75-125	0	20	
Cadmium	ug/L	ND	1000	1000	963	968	96	97	75-125	1	20	
Calcium	ug/L	6420	10000	10000	16000	16000	96	96	75-125	0	20	
Chromium	ug/L	35.4	1000	1000	996	993	96	96	75-125	0	20	
Iron	ug/L	25400	10000	10000	34800	34400	94	90	75-125	1	20	
Lead	ug/L	12.4	1000	1000	917	922	90	91	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3618968 3618969

Parameter	Units	50373598007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	57.8	1000	1000	1040	1030	98	97	75-125	1	20	
Magnesium	ug/L	7620	10000	10000	17000	16800	93	92	75-125	1	20	
Molybdenum	ug/L	13.6	1000	1000	1010	1010	100	100	75-125	0	20	
Potassium	ug/L	7620	10000	10000	18800	17900	112	103	75-125	5	20	
Sodium	ug/L	597000	10000	10000	590000	590000	-69	-69	75-125	0	20	E,P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

QC Batch: 791008
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373325001, 50373325002, 50373325003, 50373325004, 50373325005, 50373325006, 50373325007

METHOD BLANK: 3619603 Matrix: Water
Associated Lab Samples: 50373325001, 50373325002, 50373325003, 50373325004, 50373325005, 50373325006, 50373325007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	11.4	05/29/24 19:41	
Lithium, Dissolved	ug/L	ND	20.0	5.1	05/29/24 19:41	
Magnesium, Dissolved	ug/L	ND	1000	32.8	05/29/24 19:41	
Molybdenum, Dissolved	ug/L	ND	10.0	1.1	05/29/24 19:41	
Potassium, Dissolved	ug/L	ND	1000	120	05/29/24 19:41	

LABORATORY CONTROL SAMPLE: 3619604

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	913	91	80-120	
Lithium, Dissolved	ug/L	1000	952	95	80-120	
Magnesium, Dissolved	ug/L	10000	9170	92	80-120	
Molybdenum, Dissolved	ug/L	1000	926	93	80-120	
Potassium, Dissolved	ug/L	10000	9100	91	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3619605 3619606

Parameter	Units	50372425001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	33.9 mg/L	1000	1000	35300	35200	140	130	75-125	0	20	P6
Lithium, Dissolved	ug/L	ND	1000	1000	993	983	97	96	75-125	1	20	
Magnesium, Dissolved	ug/L	34.4 mg/L	10000	10000	43600	43400	92	89	75-125	1	20	
Molybdenum, Dissolved	ug/L	0.51 mg/L	1000	1000	1480	1470	98	96	75-125	1	20	
Potassium, Dissolved	ug/L	1.2 mg/L	10000	10000	10500	10400	93	92	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

QC Batch: 791076
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373325001, 50373325002, 50373325003, 50373325004, 50373325005, 50373325006, 50373325007

METHOD BLANK: 3619860 Matrix: Water
Associated Lab Samples: 50373325001, 50373325002, 50373325003, 50373325004, 50373325005, 50373325006, 50373325007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.27	05/22/24 16:06	
Arsenic	ug/L	ND	1.0	0.11	05/22/24 16:06	
Barium	ug/L	ND	1.0	0.090	05/22/24 16:06	
Beryllium	ug/L	ND	0.20	0.030	05/22/24 16:06	
Cobalt	ug/L	ND	1.0	0.16	05/22/24 16:06	
Manganese	ug/L	ND	1.0	0.26	05/22/24 16:06	
Selenium	ug/L	ND	1.0	0.22	05/22/24 16:06	
Thallium	ug/L	ND	1.0	0.043	05/22/24 16:06	

LABORATORY CONTROL SAMPLE: 3619861

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	41.3	103	80-120	
Arsenic	ug/L	40	38.1	95	80-120	
Barium	ug/L	40	38.5	96	80-120	
Beryllium	ug/L	40	38.5	96	80-120	
Cobalt	ug/L	40	40.9	102	80-120	
Manganese	ug/L	40	40.6	102	80-120	
Selenium	ug/L	40	38.3	96	80-120	
Thallium	ug/L	40	40.9	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3619862 3619863

Parameter	Units	50373350021 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	40.1	40.1	100	100	75-125	0	20	
Arsenic	ug/L	ND	40	40	38.2	38.5	95	96	75-125	1	20	
Barium	ug/L	40.4	40	40	79.1	79.8	97	98	75-125	1	20	
Beryllium	ug/L	ND	40	40	39.7	40.5	99	101	75-125	2	20	
Cobalt	ug/L	ND	40	40	39.8	40.0	99	100	75-125	0	20	
Manganese	ug/L	16.9	40	40	56.8	57.0	100	100	75-125	0	20	
Selenium	ug/L	ND	40	40	39.4	39.8	98	99	75-125	1	20	
Thallium	ug/L	ND	40	40	41.5	41.2	104	103	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

QC Batch: 791208
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373325001, 50373325002, 50373325003, 50373325004, 50373325005, 50373325006, 50373325007

METHOD BLANK: 3620494 Matrix: Water
Associated Lab Samples: 50373325001, 50373325002, 50373325003, 50373325004, 50373325005, 50373325006, 50373325007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.6	05/23/24 00:33	

LABORATORY CONTROL SAMPLE: 3620495

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	421	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3620496 3620497

Parameter	Units	50373084001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	0.029 mg/L	400	400	439	436	103	102	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

QC Batch: 791108 | Analysis Method: SM 2320B
QC Batch Method: SM 2320B | Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373325001, 50373325002, 50373325003, 50373325004, 50373325005, 50373325006, 50373325007

METHOD BLANK: 3619965 Matrix: Water
Associated Lab Samples: 50373325001, 50373325002, 50373325003, 50373325004, 50373325005, 50373325006, 50373325007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/21/24 15:27	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	05/21/24 15:27	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	05/21/24 15:27	

LABORATORY CONTROL SAMPLE: 3619966

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.5	101	90-110	

SAMPLE DUPLICATE: 3619967

Parameter	Units	50373325005 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	229	234	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	229	234	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3619968

Parameter	Units	50373372002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	501	507	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	501	507	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

QC Batch: 791034
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373325001, 50373325002, 50373325003, 50373325004, 50373325005, 50373325006, 50373325007

METHOD BLANK: 3619719 Matrix: Water
Associated Lab Samples: 50373325001, 50373325002, 50373325003, 50373325004, 50373325005, 50373325006, 50373325007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/21/24 12:26	

LABORATORY CONTROL SAMPLE: 3619720

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	302	101	80-120	

SAMPLE DUPLICATE: 3619721

Parameter	Units	50373267001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	8600	7620	12	10	R1

SAMPLE DUPLICATE: 3619722

Parameter	Units	50373372001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1340	1370	2	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

QC Batch: 791909
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373325001, 50373325002, 50373325003, 50373325004, 50373325005, 50373325006, 50373325007

SAMPLE DUPLICATE: 3624028

Parameter	Units	50373325001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.7	6.6	1	2	H3

SAMPLE DUPLICATE: 3624029

Parameter	Units	50372570009 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.4	0	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

QC Batch: 790642 | Analysis Method: SM 4500-S2-D
QC Batch Method: SM 4500-S2-D | Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373325001, 50373325002, 50373325003, 50373325004, 50373325005, 50373325006, 50373325007

METHOD BLANK: 3618059 Matrix: Water
Associated Lab Samples: 50373325001, 50373325002, 50373325003, 50373325004, 50373325005, 50373325006, 50373325007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/17/24 14:41	

LABORATORY CONTROL SAMPLE: 3618060

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.54	107	90-110	

MATRIX SPIKE SAMPLE: 3618063

Parameter	Units	50373419007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.12	0.5	0.50	77	90-110	M0

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3618087 3618088

Parameter	Units	50373207023 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	0.12	0.5	0.5	0.54	0.53	84	81	90-110	2	20	M3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

QC Batch: 790492 | Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 | Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373325001, 50373325002, 50373325003, 50373325004, 50373325005, 50373325006, 50373325007

METHOD BLANK: 3617317 Matrix: Water
Associated Lab Samples: 50373325001, 50373325002, 50373325003, 50373325004, 50373325005, 50373325006, 50373325007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/16/24 23:47	

LABORATORY CONTROL SAMPLE: 3617318

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	101	90-110	

MATRIX SPIKE SAMPLE: 3617319

Parameter	Units	50373325003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	0.21	1	1.2	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3617320 3617321

Parameter	Units	50373305001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	1.4	1	1	2.4	2.4	101	101	90-110	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

QC Batch: 792737 | Analysis Method: EPA 365.1
QC Batch Method: EPA 365.1 | Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373325001, 50373325002, 50373325003, 50373325004, 50373325005, 50373325006, 50373325007

METHOD BLANK: 3627628 Matrix: Water
Associated Lab Samples: 50373325001, 50373325002, 50373325003, 50373325004, 50373325005, 50373325006, 50373325007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	05/30/24 18:29	

LABORATORY CONTROL SAMPLE: 3627629

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3627630 3627631

Parameter	Units	50373349001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	4.5			6.1	6.0				3		

MATRIX SPIKE SAMPLE: 3627632

Parameter	Units	50373372001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	ND		1.6			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

QC Batch: 792096 | Analysis Method: SM 5310C
QC Batch Method: SM 5310C | Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373325001, 50373325002, 50373325003, 50373325004, 50373325005, 50373325006, 50373325007

METHOD BLANK: 3625131 Matrix: Water
Associated Lab Samples: 50373325001, 50373325002, 50373325003, 50373325004, 50373325005, 50373325006, 50373325007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	05/25/24 20:46	

LABORATORY CONTROL SAMPLE: 3625132

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3625133 3625134

Parameter	Units	50373421001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.5	10	10	11.6	11.6	92	91	80-120	1	20	

MATRIX SPIKE SAMPLE: 3625135

Parameter	Units	50373421007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	2.2	10	11.5	94	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Sample: MW-39I **Lab ID: 50373325001** Collected: 05/15/24 10:05 Received: 05/16/24 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.626 ± 0.717 (1.18) C:NA T:91%**	pCi/L	06/07/24 14:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.754 ± 0.467 (0.849) C:84% T:85%**	pCi/L	06/04/24 15:25	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.38 ± 1.18 (2.03)**	pCi/L	06/10/24 11:30	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Sample: MW-39A **Lab ID: 50373325002** Collected: 05/15/24 11:05 Received: 05/16/24 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.181 ± 0.591 (1.21) C:NA T:88%**	pCi/L	06/07/24 14:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.46 ± 0.488 (0.631) C:86% T:87%**	pCi/L	06/04/24 15:25	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.46 ± 1.08 (1.84)**	pCi/L	06/10/24 11:30	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Sample: MW-39B **Lab ID: 50373325003** Collected: 05/15/24 11:55 Received: 05/16/24 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.432 ± 0.749 (1.31) C:NA T:89%**	pCi/L	06/07/24 14:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.444 ± 0.335 (0.656) C:87% T:87%**	pCi/L	06/04/24 15:25	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.876 ± 1.08 (1.97)**	pCi/L	06/10/24 11:30	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Sample: MW-38I **Lab ID: 50373325004** Collected: 05/15/24 12:55 Received: 05/16/24 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0567 ± 0.578 (1.10) C:NA T:94%**	pCi/L	06/07/24 14:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.780 ± 0.340 (0.536) C:98% T:85%**	pCi/L	06/04/24 15:25	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.837 ± 0.918 (1.64)**	pCi/L	06/10/24 11:30	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Sample: MW-38B **Lab ID: 50373325005** Collected: 05/15/24 14:25 Received: 05/16/24 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0648 ± 0.730 (1.38) C:NA T:82%**	pCi/L	06/07/24 14:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**-0.0126 ± 0.279 (0.656) C:93% T:82%**	pCi/L	06/04/24 15:25	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.0648 ± 1.01 (2.04)**	pCi/L	06/10/24 11:30	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Sample: MW-38A **Lab ID: 50373325006** Collected: 05/15/24 15:15 Received: 05/16/24 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.341 ± 0.569 (0.990) C:NA T:95%**	pCi/L	06/07/24 15:06	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.961 ± 0.414 (0.678) C:90% T:87%**	pCi/L	06/04/24 15:25	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.30 ± 0.983 (1.67)**	pCi/L	06/10/24 11:30	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Sample: DUP-11 **Lab ID: 50373325007** Collected: 05/15/24 08:00 Received: 05/16/24 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.125 ± 0.458 (0.881) C:NA T:87%**	pCi/L	06/07/24 15:06	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.19 ± 0.461 (0.718) C:87% T:88%**	pCi/L	06/04/24 15:26	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.32 ± 0.919 (1.60)**	pCi/L	06/10/24 11:30	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

QC Batch: 669955
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50373325001, 50373325002, 50373325003, 50373325004, 50373325005, 50373325006, 50373325007

METHOD BLANK: 3262120 Matrix: Water
Associated Lab Samples: 50373325001, 50373325002, 50373325003, 50373325004, 50373325005, 50373325006, 50373325007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.185 ± 0.257 (0.429) C:NA T:90%	pCi/L	06/07/24 14:42	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

QC Batch: 669964
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50373325001, 50373325002, 50373325003, 50373325004, 50373325005, 50373325006, 50373325007

METHOD BLANK: 3262136 Matrix: Water
Associated Lab Samples: 50373325001, 50373325002, 50373325003, 50373325004, 50373325005, 50373325006, 50373325007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.432 ± 0.324 (0.636) C:84% T:89%	pCi/L	06/04/24 12:07	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
R1	RPD value was outside control limits.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50373325001	**MW-39I**	EPA 9056	791646		
50373325002	**MW-39A**	EPA 9056	791646		
50373325003	**MW-39B**	EPA 9056	791646		
50373325004	**MW-38I**	EPA 9056	791646		
50373325005	**MW-38B**	EPA 9056	791646		
50373325006	**MW-38A**	EPA 9056	791646		
50373325007	**DUP-11**	EPA 9056	791646		
50373325001	**MW-39I**	EPA 3010	790819	EPA 6010	791285
50373325002	**MW-39A**	EPA 3010	790819	EPA 6010	791285
50373325003	**MW-39B**	EPA 3010	790819	EPA 6010	791285
50373325004	**MW-38I**	EPA 3010	790819	EPA 6010	791285
50373325005	**MW-38B**	EPA 3010	790819	EPA 6010	791285
50373325006	**MW-38A**	EPA 3010	790819	EPA 6010	791285
50373325007	**DUP-11**	EPA 3010	790819	EPA 6010	791285
50373325001	**MW-39I**	EPA 3010	791008	EPA 6010	792661
50373325002	**MW-39A**	EPA 3010	791008	EPA 6010	792661
50373325003	**MW-39B**	EPA 3010	791008	EPA 6010	792661
50373325004	**MW-38I**	EPA 3010	791008	EPA 6010	792661
50373325005	**MW-38B**	EPA 3010	791008	EPA 6010	792661
50373325006	**MW-38A**	EPA 3010	791008	EPA 6010	792661
50373325007	**DUP-11**	EPA 3010	791008	EPA 6010	792661
50373325001	**MW-39I**	EPA 200.2	791076	EPA 6020	791293
50373325002	**MW-39A**	EPA 200.2	791076	EPA 6020	791293
50373325003	**MW-39B**	EPA 200.2	791076	EPA 6020	791293
50373325004	**MW-38I**	EPA 200.2	791076	EPA 6020	791293
50373325005	**MW-38B**	EPA 200.2	791076	EPA 6020	791293
50373325006	**MW-38A**	EPA 200.2	791076	EPA 6020	791293
50373325007	**DUP-11**	EPA 200.2	791076	EPA 6020	791293
50373325001	**MW-39I**	EPA 200.2	791208	EPA 6020	791460
50373325002	**MW-39A**	EPA 200.2	791208	EPA 6020	791460
50373325003	**MW-39B**	EPA 200.2	791208	EPA 6020	791460
50373325004	**MW-38I**	EPA 200.2	791208	EPA 6020	791460
50373325005	**MW-38B**	EPA 200.2	791208	EPA 6020	791460
50373325006	**MW-38A**	EPA 200.2	791208	EPA 6020	791460
50373325007	**DUP-11**	EPA 200.2	791208	EPA 6020	791460
50373325001	**MW-39I**	EPA 7470	791667	EPA 7470	792365
50373325002	**MW-39A**	EPA 7470	791667	EPA 7470	792365
50373325003	**MW-39B**	EPA 7470	791667	EPA 7470	792365
50373325004	**MW-38I**	EPA 7470	791667	EPA 7470	792365
50373325005	**MW-38B**	EPA 7470	791667	EPA 7470	792365
50373325006	**MW-38A**	EPA 7470	791667	EPA 7470	792365
50373325007	**DUP-11**	EPA 7470	791667	EPA 7470	792365
50373325001	**MW-39I**	EPA 903.1	669955		
50373325002	**MW-39A**	EPA 903.1	669955		
50373325003	**MW-39B**	EPA 903.1	669955		
50373325004	**MW-38I**	EPA 903.1	669955		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50373325005	**MW-38B**	EPA 903.1	669955		
50373325006	**MW-38A**	EPA 903.1	669955		
50373325007	**DUP-11**	EPA 903.1	669955		
50373325001	**MW-39I**	EPA 904.0	669964		
50373325002	**MW-39A**	EPA 904.0	669964		
50373325003	**MW-39B**	EPA 904.0	669964		
50373325004	**MW-38I**	EPA 904.0	669964		
50373325005	**MW-38B**	EPA 904.0	669964		
50373325006	**MW-38A**	EPA 904.0	669964		
50373325007	**DUP-11**	EPA 904.0	669964		
50373325001	**MW-39I**	Total Radium Calculation	674478		
50373325002	**MW-39A**	Total Radium Calculation	674478		
50373325003	**MW-39B**	Total Radium Calculation	674478		
50373325004	**MW-38I**	Total Radium Calculation	674478		
50373325005	**MW-38B**	Total Radium Calculation	674478		
50373325006	**MW-38A**	Total Radium Calculation	674478		
50373325007	**DUP-11**	Total Radium Calculation	674478		
50373325001	**MW-39I**	SM 2320B	791108		
50373325002	**MW-39A**	SM 2320B	791108		
50373325003	**MW-39B**	SM 2320B	791108		
50373325004	**MW-38I**	SM 2320B	791108		
50373325005	**MW-38B**	SM 2320B	791108		
50373325006	**MW-38A**	SM 2320B	791108		
50373325007	**DUP-11**	SM 2320B	791108		
50373325001	**MW-39I**	SM 2540C	791034		
50373325002	**MW-39A**	SM 2540C	791034		
50373325003	**MW-39B**	SM 2540C	791034		
50373325004	**MW-38I**	SM 2540C	791034		
50373325005	**MW-38B**	SM 2540C	791034		
50373325006	**MW-38A**	SM 2540C	791034		
50373325007	**DUP-11**	SM 2540C	791034		
50373325001	**MW-39I**	SM 4500-H+B	791909		
50373325002	**MW-39A**	SM 4500-H+B	791909		
50373325003	**MW-39B**	SM 4500-H+B	791909		
50373325004	**MW-38I**	SM 4500-H+B	791909		
50373325005	**MW-38B**	SM 4500-H+B	791909		
50373325006	**MW-38A**	SM 4500-H+B	791909		
50373325007	**DUP-11**	SM 4500-H+B	791909		
50373325001	**MW-39I**	SM 4500-S2-D	790642		
50373325002	**MW-39A**	SM 4500-S2-D	790642		
50373325003	**MW-39B**	SM 4500-S2-D	790642		
50373325004	**MW-38I**	SM 4500-S2-D	790642		
50373325005	**MW-38B**	SM 4500-S2-D	790642		
50373325006	**MW-38A**	SM 4500-S2-D	790642		
50373325007	**DUP-11**	SM 4500-S2-D	790642		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373325

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50373325001	**MW-39I**	EPA 353.2	790492		
50373325002	**MW-39A**	EPA 353.2	790492		
50373325003	**MW-39B**	EPA 353.2	790492		
50373325004	**MW-38I**	EPA 353.2	790492		
50373325005	**MW-38B**	EPA 353.2	790492		
50373325006	**MW-38A**	EPA 353.2	790492		
50373325007	**DUP-11**	EPA 353.2	790492		
50373325001	**MW-39I**	EPA 365.1	792737	EPA 365.1	792889
50373325002	**MW-39A**	EPA 365.1	792737	EPA 365.1	792889
50373325003	**MW-39B**	EPA 365.1	792737	EPA 365.1	792889
50373325004	**MW-38I**	EPA 365.1	792737	EPA 365.1	792889
50373325005	**MW-38B**	EPA 365.1	792737	EPA 365.1	792889
50373325006	**MW-38A**	EPA 365.1	792737	EPA 365.1	792889
50373325007	**DUP-11**	EPA 365.1	792737	EPA 365.1	792889
50373325001	**MW-39I**	SM 5310C	792096		
50373325002	**MW-39A**	SM 5310C	792096		
50373325003	**MW-39B**	SM 5310C	792096		
50373325004	**MW-38I**	SM 5310C	792096		
50373325005	**MW-38B**	SM 5310C	792096		
50373325006	**MW-38A**	SM 5310C	792096		
50373325007	**DUP-11**	SM 5310C	792096		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request Do

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields mus

WO# : 50373325

50373325

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam	
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis	
	Indianapolis, IN 46256			Address:		Regulatory Agency
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:		
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg May 2024 P4R4	Pace Project Manager:	Will Statz	State / Location
Requested Due Date:		Project #:		Pace Profile #:		IN

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO3 Wet	(Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity,pH	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum	Residual Chlorine (Y/N)	Requested Analysis Filtered (Y/N)
																		Y/N				Y			Y			
1	MW-39I	WT	G			5-15-24	1005		10	X	X	X		X					X	X	X	X	X	X	X	X		001
2	MW-39A	WT	G			5-15-24	1105		10	X	X	X		X					X	X	X	X	X	X	X	X		002
3	MW-39B	WT	G			5-15-24	1155		10	X	X	X		X					X	X	X	X	X	X	X	X		003
4	MW-38I	WT	G			5-15-24	1255		10	X	X	X		X					X	X	X	X	X	X	X	X		004
5	MW-38B	WT	G			5-15-24	1425		10	X	X	X		X					X	X	X	X	X	X	X	X		005
6	MW-38A	WT	G			5-15-24	1515		10	X	X	X		X					X	X	X	X	X	X	X	X		006
7	DUP-11	WT	G			5-15-24	-		10	X	X	X		X					X	X	X	X	X	X	X	X		007
8																												
9																												
10																												
11																												
12																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Metals: 6010 (B, Cd, Cr, Fe, Pb, Mo, Ca, Mg, Na, K, Li) (11)		5-16-24	7:15 AM		5/16/24	7:15 AM				
6020 (Be, Mn, Co, As, Se, Sb, Ba, Tl) (8), 7470 (Hg)		5/16/24	9:45 AM		5/16/24	945	0.9	Y	N	Y
* Dissolved FF 6010 (B, Mo, Mg, K, Li) (5) FF 6020 (Al) (1)										
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Josh O'Brien					
SIGNATURE of SAMPLER:		DATE Signed: 5-15-24				

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 5/16/24 1103 mw

1. **Courier:** ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☐ Yes ☑ No
   (If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F (G) H
4. **Cooler Temperature(s):** 1.1/0.9 | 2.0/1.8 | 1.7/1.5 | 2.0/1.8
   (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)
5. **Packing Material:** ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **Was the PM notified of out of temp cooler?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C
8. **EZ Bottle Order?** ☐ Yes ☑ No
   If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis: NO3	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 11:45			Present	Absent	N/A ✓
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓	mw	Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1													1			2	1	2	1	1	1		1				WT	✓	✓		✓
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

July 24, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 21, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50373676001	**AP-11B**	Water	05/20/24 12:34	05/21/24 09:10
50373676002	**MW-25A**	Water	05/20/24 15:25	05/21/24 09:10
50373676003	**MW-25B**	Water	05/20/24 13:22	05/21/24 09:10

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50373676001	**AP-11B**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	ABH	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	DMT	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50373676002	**MW-25A**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	ABH	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	DMT	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50373676003	**MW-25B**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	ABH	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	DMT	1	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50373676001	**AP-11B**					
EPA 9056	Chloride	4.8	mg/L	0.25	05/29/24 21:19	
EPA 9056	Fluoride	0.12	mg/L	0.10	05/29/24 21:19	
EPA 9056	Sulfate	404	mg/L	2.5	05/29/24 21:36	
EPA 6010	Boron	804	ug/L	100	05/31/24 22:31	
EPA 6010	Calcium	160000	ug/L	1000	05/31/24 22:31	
EPA 6010	Iron	375	ug/L	100	05/31/24 22:31	
EPA 6010	Magnesium	55200	ug/L	1000	05/31/24 22:31	
EPA 6010	Sodium	9370	ug/L	1000	05/31/24 22:31	
EPA 6010	Boron, Dissolved	821	ug/L	100	05/28/24 21:26	
EPA 6010	Magnesium, Dissolved	50400	ug/L	1000	05/28/24 21:26	
EPA 6020	Barium	15.9	ug/L	1.0	05/26/24 21:07	
EPA 6020	Manganese	319	ug/L	2.0	06/02/24 22:27	
EPA 6020	Aluminum, Dissolved	17.8	ug/L	10.0	05/24/24 07:49	
EPA 903.1	Radium-226	0.120 ± 0.646 (1.21) C:NA T:90%	pCi/L		06/12/24 14:26	
EPA 904.0	Radium-228	0.866 ± 0.462 (0.802) C:77% T:77%	pCi/L		06/10/24 15:28	
Total Radium Calculation	Total Radium	0.986 ± 1.11 (2.01)	pCi/L		06/13/24 14:04	
SM 2320B	Alkalinity, Total as CaCO3	283	mg/L	10.0	05/24/24 20:19	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	283	mg/L	10.0	05/24/24 20:19	
SM 2540C	Total Dissolved Solids	805	mg/L	10.0	05/23/24 07:41	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	06/04/24 15:46	H3
SM 5310C	Dissolved Organic Carbon	1.2	mg/L	1.0	05/31/24 18:37	
50373676002	**MW-25A**					
EPA 9056	Chloride	55.2	mg/L	2.5	05/29/24 23:17	
EPA 9056	Sulfate	1630	mg/L	25.0	05/29/24 23:34	
EPA 6010	Boron	13500	ug/L	100	05/31/24 22:32	
EPA 6010	Calcium	509000	ug/L	5000	05/31/24 22:45	
EPA 6010	Iron	13900	ug/L	100	05/31/24 22:32	
EPA 6010	Magnesium	125000	ug/L	1000	05/31/24 22:32	
EPA 6010	Molybdenum	13.4	ug/L	10.0	05/31/24 22:32	
EPA 6010	Potassium	1940	ug/L	1000	05/31/24 22:32	
EPA 6010	Sodium	19400	ug/L	1000	05/31/24 22:32	
EPA 6010	Boron, Dissolved	13100	ug/L	100	05/28/24 21:28	
EPA 6010	Magnesium, Dissolved	118000	ug/L	1000	05/28/24 21:28	
EPA 6010	Molybdenum, Dissolved	11.8	ug/L	10.0	05/28/24 21:28	
EPA 6010	Potassium, Dissolved	1900	ug/L	1000	05/28/24 21:28	
EPA 6020	Barium	18.5	ug/L	1.0	05/26/24 21:10	
EPA 6020	Manganese	1750	ug/L	10.0	06/02/24 22:30	
EPA 903.1	Radium-226	-0.302 ± 0.593 (1.25) C:NA T:88%	pCi/L		06/12/24 14:26	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50373676002	**MW-25A**					
EPA 904.0	Radium-228	0.138 ± 0.401 (0.903) C:78% T:74%	pCi/L		06/10/24 15:28	
Total Radium Calculation	Total Radium	0.138 ± 0.994 (2.15)	pCi/L		06/13/24 14:04	
SM 2320B	Alkalinity, Total as CaCO3	157	mg/L	10.0	05/24/24 20:19	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	157	mg/L	10.0	05/24/24 20:19	
SM 2540C	Total Dissolved Solids	2450	mg/L	20.0	05/23/24 07:42	
SM 4500-H+B	pH at 25 Degrees C	6.9	Std. Units	0.10	06/04/24 15:47	H3
EPA 365.1	Phosphate as P04	0.34	mg/L	0.15	06/03/24 16:12	
SM 5310C	Dissolved Organic Carbon	1.2	mg/L	1.0	05/31/24 19:35	
50373676003	**MW-25B**					
EPA 9056	Chloride	36.2	mg/L	2.5	05/29/24 22:09	
EPA 9056	Fluoride	0.15	mg/L	0.10	05/29/24 21:53	
EPA 9056	Sulfate	786	mg/L	25.0	06/04/24 10:14	
EPA 6010	Boron	9220	ug/L	100	05/31/24 22:34	
EPA 6010	Calcium	382000	ug/L	5000	05/31/24 22:47	
EPA 6010	Iron	1950	ug/L	100	05/31/24 22:34	
EPA 6010	Magnesium	46800	ug/L	1000	05/31/24 22:34	
EPA 6010	Potassium	2090	ug/L	1000	05/31/24 22:34	
EPA 6010	Sodium	17300	ug/L	1000	05/31/24 22:34	
EPA 6010	Boron, Dissolved	9370	ug/L	100	05/28/24 21:30	
EPA 6010	Magnesium, Dissolved	46500	ug/L	1000	05/28/24 21:30	
EPA 6010	Potassium, Dissolved	2020	ug/L	1000	05/28/24 21:30	
EPA 6020	Barium	56.9	ug/L	1.0	05/26/24 21:21	
EPA 6020	Cobalt	1.2	ug/L	1.0	05/26/24 21:21	
EPA 6020	Manganese	1370	ug/L	10.0	06/02/24 22:34	
EPA 903.1	Radium-226	0.181 ± 0.719 (1.32) C:NA T:90%	pCi/L		06/12/24 14:39	
EPA 904.0	Radium-228	0.0750 ± 0.361 (0.826) C:73% T:88%	pCi/L		06/10/24 15:28	
Total Radium Calculation	Total Radium	0.256 ± 1.08 (2.15)	pCi/L		06/13/24 14:04	
SM 2320B	Alkalinity, Total as CaCO3	250	mg/L	10.0	05/24/24 20:19	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	250	mg/L	10.0	05/24/24 20:19	
SM 2540C	Total Dissolved Solids	1510	mg/L	20.0	05/23/24 07:42	
SM 4500-H+B	pH at 25 Degrees C	7.0	Std. Units	0.10	06/04/24 15:48	H3
EPA 353.2	Nitrogen, Nitrate	0.19	mg/L	0.10	05/22/24 02:36	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

Sample: AP-11B **Lab ID: 50373676001** Collected: 05/20/24 12:34 Received: 05/21/24 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**4.8**	mg/L	0.25	0.067	1		05/29/24 21:19	16887-00-6	
Fluoride	**0.12**	mg/L	0.10	0.017	1		05/29/24 21:19	16984-48-8	
Sulfate	**404**	mg/L	2.5	1.9	10		05/29/24 21:36	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**804**	ug/L	100	6.2	1	05/27/24 20:38	05/31/24 22:31	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/27/24 20:38	05/31/24 22:31	7440-43-9	
Calcium	**160000**	ug/L	1000	67.7	1	05/27/24 20:38	05/31/24 22:31	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/27/24 20:38	05/31/24 22:31	7440-47-3	
Iron	**375**	ug/L	100	30.0	1	05/27/24 20:38	05/31/24 22:31	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/27/24 20:38	05/31/24 22:31	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/27/24 20:38	05/31/24 22:31	7439-93-2	
Magnesium	**55200**	ug/L	1000	33.6	1	05/27/24 20:38	05/31/24 22:31	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	05/27/24 20:38	05/31/24 22:31	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	05/27/24 20:38	05/31/24 22:31	7440-09-7	
Sodium	**9370**	ug/L	1000	54.8	1	05/27/24 20:38	05/31/24 22:31	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**821**	ug/L	100	11.4	1	05/23/24 21:53	05/28/24 21:26	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	05/23/24 21:53	05/28/24 21:26	7439-93-2	
Magnesium, Dissolved	**50400**	ug/L	1000	32.8	1	05/23/24 21:53	05/28/24 21:26	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	05/23/24 21:53	05/28/24 21:26	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	120	1	05/23/24 21:53	05/28/24 21:26	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.044	1	05/24/24 07:32	05/26/24 21:07	7440-36-0	
Arsenic	ND	ug/L	1.0	0.064	1	05/24/24 07:32	05/26/24 21:07	7440-38-2	
Barium	**15.9**	ug/L	1.0	0.067	1	05/24/24 07:32	05/26/24 21:07	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	05/24/24 07:32	05/26/24 21:07	7440-41-7	
Cobalt	ND	ug/L	1.0	0.024	1	05/24/24 07:32	05/26/24 21:07	7440-48-4	
Manganese	**319**	ug/L	2.0	0.086	2	05/24/24 07:32	06/02/24 22:27	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	05/24/24 07:32	05/26/24 21:07	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	05/24/24 07:32	05/26/24 21:07	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	**17.8**	ug/L	10.0	4.4	1	05/23/24 15:36	05/24/24 07:49	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/31/24 09:53	06/02/24 16:45	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

Sample: AP-11B **Lab ID: 50373676001** Collected: 05/20/24 12:34 Received: 05/21/24 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**283**	mg/L	10.0	10.0	1		05/24/24 20:19		
Alkalinity,Bicarbonate (CaCO3)	**283**	mg/L	10.0	10.0	1		05/24/24 20:19		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/24/24 20:19		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**805**	mg/L	10.0	10.0	1		05/23/24 07:41		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		06/04/24 15:46		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/22/24 13:17	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/22/24 02:29	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	05/31/24 11:30	06/03/24 16:10		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.2**	mg/L	1.0	0.25	1		05/31/24 18:37		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

Sample: MW-25A **Lab ID: 50373676002** Collected: 05/20/24 15:25 Received: 05/21/24 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**55.2**	mg/L	2.5	0.67	10		05/29/24 23:17	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		05/29/24 23:00	16984-48-8	
Sulfate	**1630**	mg/L	25.0	19.0	100		05/29/24 23:34	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**13500**	ug/L	100	6.2	1	05/27/24 20:38	05/31/24 22:32	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/27/24 20:38	05/31/24 22:32	7440-43-9	
Calcium	**509000**	ug/L	5000	338	5	05/27/24 20:38	05/31/24 22:45	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/27/24 20:38	05/31/24 22:32	7440-47-3	
Iron	**13900**	ug/L	100	30.0	1	05/27/24 20:38	05/31/24 22:32	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/27/24 20:38	05/31/24 22:32	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/27/24 20:38	05/31/24 22:32	7439-93-2	
Magnesium	**125000**	ug/L	1000	33.6	1	05/27/24 20:38	05/31/24 22:32	7439-95-4	
Molybdenum	**13.4**	ug/L	10.0	0.78	1	05/27/24 20:38	05/31/24 22:32	7439-98-7	
Potassium	**1940**	ug/L	1000	97.8	1	05/27/24 20:38	05/31/24 22:32	7440-09-7	
Sodium	**19400**	ug/L	1000	54.8	1	05/27/24 20:38	05/31/24 22:32	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**13100**	ug/L	100	11.4	1	05/23/24 21:53	05/28/24 21:28	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	05/23/24 21:53	05/28/24 21:28	7439-93-2	
Magnesium, Dissolved	**118000**	ug/L	1000	32.8	1	05/23/24 21:53	05/28/24 21:28	7439-95-4	
Molybdenum, Dissolved	**11.8**	ug/L	10.0	1.1	1	05/23/24 21:53	05/28/24 21:28	7439-98-7	
Potassium, Dissolved	**1900**	ug/L	1000	120	1	05/23/24 21:53	05/28/24 21:28	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.044	1	05/24/24 07:32	05/26/24 21:10	7440-36-0	
Arsenic	ND	ug/L	1.0	0.064	1	05/24/24 07:32	05/26/24 21:10	7440-38-2	
Barium	**18.5**	ug/L	1.0	0.067	1	05/24/24 07:32	05/26/24 21:10	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	05/24/24 07:32	05/26/24 21:10	7440-41-7	
Cobalt	ND	ug/L	1.0	0.024	1	05/24/24 07:32	05/26/24 21:10	7440-48-4	
Manganese	**1750**	ug/L	10.0	0.43	10	05/24/24 07:32	06/02/24 22:30	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	05/24/24 07:32	05/26/24 21:10	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	05/24/24 07:32	05/26/24 21:10	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	05/23/24 15:36	05/24/24 07:53	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/31/24 09:53	06/02/24 16:47	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

Sample: MW-25A **Lab ID: 50373676002** Collected: 05/20/24 15:25 Received: 05/21/24 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**157**	mg/L	10.0	10.0	1		05/24/24 20:19		
Alkalinity,Bicarbonate (CaCO3)	**157**	mg/L	10.0	10.0	1		05/24/24 20:19		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/24/24 20:19		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2450**	mg/L	20.0	20.0	1		05/23/24 07:42		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.9**	Std. Units	0.10	0.10	1		06/04/24 15:47		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/22/24 13:17	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/22/24 02:45	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.34**	mg/L	0.15	0.13	1	05/31/24 11:30	06/03/24 16:12		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.2**	mg/L	1.0	0.25	1		05/31/24 19:35		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

Sample: MW-25B **Lab ID: 50373676003** Collected: 05/20/24 13:22 Received: 05/21/24 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**36.2**	mg/L	2.5	0.67	10		05/29/24 22:09	16887-00-6	
Fluoride	**0.15**	mg/L	0.10	0.017	1		05/29/24 21:53	16984-48-8	
Sulfate	**786**	mg/L	25.0	19.0	100		06/04/24 10:14	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**9220**	ug/L	100	6.2	1	05/27/24 20:38	05/31/24 22:34	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/27/24 20:38	05/31/24 22:34	7440-43-9	
Calcium	**382000**	ug/L	5000	338	5	05/27/24 20:38	05/31/24 22:47	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/27/24 20:38	05/31/24 22:34	7440-47-3	
Iron	**1950**	ug/L	100	30.0	1	05/27/24 20:38	05/31/24 22:34	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/27/24 20:38	05/31/24 22:34	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/27/24 20:38	05/31/24 22:34	7439-93-2	
Magnesium	**46800**	ug/L	1000	33.6	1	05/27/24 20:38	05/31/24 22:34	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	05/27/24 20:38	05/31/24 22:34	7439-98-7	
Potassium	**2090**	ug/L	1000	97.8	1	05/27/24 20:38	05/31/24 22:34	7440-09-7	
Sodium	**17300**	ug/L	1000	54.8	1	05/27/24 20:38	05/31/24 22:34	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**9370**	ug/L	100	11.4	1	05/23/24 21:53	05/28/24 21:30	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	05/23/24 21:53	05/28/24 21:30	7439-93-2	
Magnesium, Dissolved	**46500**	ug/L	1000	32.8	1	05/23/24 21:53	05/28/24 21:30	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	05/23/24 21:53	05/28/24 21:30	7439-98-7	
Potassium, Dissolved	**2020**	ug/L	1000	120	1	05/23/24 21:53	05/28/24 21:30	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.044	1	05/24/24 07:32	05/26/24 21:21	7440-36-0	
Arsenic	ND	ug/L	1.0	0.064	1	05/24/24 07:32	05/26/24 21:21	7440-38-2	
Barium	**56.9**	ug/L	1.0	0.067	1	05/24/24 07:32	05/26/24 21:21	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	05/24/24 07:32	05/26/24 21:21	7440-41-7	
Cobalt	**1.2**	ug/L	1.0	0.024	1	05/24/24 07:32	05/26/24 21:21	7440-48-4	
Manganese	**1370**	ug/L	10.0	0.43	10	05/24/24 07:32	06/02/24 22:34	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	05/24/24 07:32	05/26/24 21:21	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	05/24/24 07:32	05/26/24 21:21	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	05/23/24 15:36	05/24/24 07:56	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/31/24 09:53	06/02/24 16:49	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

Sample: MW-25B **Lab ID: 50373676003** Collected: 05/20/24 13:22 Received: 05/21/24 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**250**	mg/L	10.0	10.0	1		05/24/24 20:19		
Alkalinity,Bicarbonate (CaCO3)	**250**	mg/L	10.0	10.0	1		05/24/24 20:19		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/24/24 20:19		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1510**	mg/L	20.0	20.0	1		05/23/24 07:42		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.0**	Std. Units	0.10	0.10	1		06/04/24 15:48		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/22/24 13:17	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**0.19**	mg/L	0.10	0.013	1		05/22/24 02:36	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	05/31/24 11:30	06/03/24 16:12		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.25	1		05/31/24 20:01		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

QC Batch: 792277
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373676001, 50373676002, 50373676003

METHOD BLANK: 3626003 Matrix: Water
Associated Lab Samples: 50373676001, 50373676002, 50373676003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/29/24 12:48	
Fluoride	mg/L	ND	0.10	0.017	05/29/24 12:48	
Sulfate	mg/L	ND	0.25	0.19	05/29/24 12:48	

LABORATORY CONTROL SAMPLE: 3626004

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	98	80-120	
Fluoride	mg/L	1	1.1	108	80-120	
Sulfate	mg/L	5	5.1	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3626005 3626006

Parameter	Units	50373639001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	203	25	25	231	230	112	109	80-120	0	15	
Fluoride	mg/L	0.21	1	1	1.4	1.4	115	119	80-120	3	15	
Sulfate	mg/L	567	500	500	1070	1070	101	101	80-120	0	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3626007 3626008

Parameter	Units	50373639004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	84.3	25	25	106	106	85	85	80-120	0	15	
Fluoride	mg/L	ND	1	1	1.1	1.1	101	100	80-120	1	15	
Sulfate	mg/L	194	50	50	236	236	84	85	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

QC Batch: 792843 | Analysis Method: EPA 7470
QC Batch Method: EPA 7470 | Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373676001, 50373676002, 50373676003

METHOD BLANK: 3627997 Matrix: Water
Associated Lab Samples: 50373676001, 50373676002, 50373676003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	06/02/24 16:40	

LABORATORY CONTROL SAMPLE: 3627998

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3627999 3628000

Parameter	Units	50373676003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.0	5.0	100	100	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

QC Batch: 791284
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373676001, 50373676002, 50373676003

METHOD BLANK: 3620847 Matrix: Water
Associated Lab Samples: 50373676001, 50373676002, 50373676003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	05/31/24 22:00	
Cadmium	ug/L	ND	2.0	0.60	05/31/24 22:00	
Calcium	ug/L	ND	1000	67.7	05/31/24 22:00	
Chromium	ug/L	ND	10.0	0.42	05/31/24 22:00	
Iron	ug/L	ND	100	30.0	05/31/24 22:00	
Lead	ug/L	ND	10.0	2.5	05/31/24 22:00	
Lithium	ug/L	ND	20.0	6.8	05/31/24 22:00	
Magnesium	ug/L	ND	1000	33.6	05/31/24 22:00	
Molybdenum	ug/L	ND	10.0	0.78	05/31/24 22:00	
Potassium	ug/L	ND	1000	97.8	05/31/24 22:00	
Sodium	ug/L	ND	1000	54.8	05/31/24 22:00	

LABORATORY CONTROL SAMPLE: 3620848

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	968	97	80-120	
Cadmium	ug/L	1000	974	97	80-120	
Calcium	ug/L	10000	9900	99	80-120	
Chromium	ug/L	1000	969	97	80-120	
Iron	ug/L	10000	9680	97	80-120	
Lead	ug/L	1000	965	97	80-120	
Lithium	ug/L	1000	991	99	80-120	
Magnesium	ug/L	10000	9770	98	80-120	
Molybdenum	ug/L	1000	1040	104	80-120	
Potassium	ug/L	10000	9720	97	80-120	
Sodium	ug/L	10000	9690	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3620849 3620850

Parameter	Units	50373670001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	0.93 mg/L	1000	1000	1930	1920	100	99	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	956	954	96	95	75-125	0	20	
Calcium	ug/L	168 mg/L	10000	10000	180000	179000	124	114	75-125	1	20	
Chromium	ug/L	ND	1000	1000	933	936	93	94	75-125	0	20	
Iron	ug/L	ND	10000	10000	9260	9320	92	93	75-125	1	20	
Lead	ug/L	ND	1000	1000	924	920	92	92	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3620849 3620850

Parameter	Units	50373670001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	ND	1000	1000	968	978	96	97	75-125	1	20	
Magnesium	ug/L	22.9 mg/L	10000	10000	32800	32500	98	96	75-125	1	20	
Molybdenum	ug/L	ND	1000	1000	1020	1020	102	102	75-125	1	20	
Potassium	ug/L	3.1 mg/L	10000	10000	12500	12600	94	96	75-125	1	20	
Sodium	ug/L	21.6 mg/L	10000	10000	30300	30300	87	87	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

QC Batch: 791282
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373676001, 50373676002, 50373676003

METHOD BLANK: 3620839 Matrix: Water
Associated Lab Samples: 50373676001, 50373676002, 50373676003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	11.4	05/28/24 20:39	
Lithium, Dissolved	ug/L	ND	20.0	5.1	05/28/24 20:39	
Magnesium, Dissolved	ug/L	ND	1000	32.8	05/28/24 20:39	
Molybdenum, Dissolved	ug/L	ND	10.0	1.1	05/28/24 20:39	
Potassium, Dissolved	ug/L	ND	1000	120	05/28/24 20:39	

LABORATORY CONTROL SAMPLE: 3620840

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	925	93	80-120	
Lithium, Dissolved	ug/L	1000	992	99	80-120	
Magnesium, Dissolved	ug/L	10000	9440	94	80-120	
Molybdenum, Dissolved	ug/L	1000	964	96	80-120	
Potassium, Dissolved	ug/L	10000	9400	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3620841 3620842

Parameter	Units	50373674001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	<0.30 mg/L	1000	1000	999	989	97	96	75-125	1	20	
Lithium, Dissolved	ug/L	<0.010 mg/L	1000	1000	1000	996	100	99	75-125	0	20	
Magnesium, Dissolved	ug/L	4.3 mg/L	10000	10000	13600	13500	93	91	75-125	1	20	
Molybdenum, Dissolved	ug/L	<0.050 mg/L	1000	1000	1020	1010	99	98	75-125	1	20	
Potassium, Dissolved	ug/L	6.0 mg/L	10000	10000	15500	15400	95	94	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

QC Batch: 791760
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373676001, 50373676002, 50373676003

METHOD BLANK: 3623059 Matrix: Water
Associated Lab Samples: 50373676001, 50373676002, 50373676003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.044	05/26/24 20:13	
Arsenic	ug/L	ND	1.0	0.064	05/26/24 20:13	
Barium	ug/L	ND	1.0	0.067	05/26/24 20:13	
Beryllium	ug/L	ND	0.20	0.026	05/26/24 20:13	
Cobalt	ug/L	ND	1.0	0.024	05/26/24 20:13	
Manganese	ug/L	ND	1.0	0.043	05/26/24 20:13	
Selenium	ug/L	ND	1.0	0.23	05/26/24 20:13	
Thallium	ug/L	ND	1.0	0.042	05/26/24 20:13	

LABORATORY CONTROL SAMPLE: 3623060

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	40.7	102	80-120	
Arsenic	ug/L	40	38.5	96	80-120	
Barium	ug/L	40	38.5	96	80-120	
Beryllium	ug/L	40	37.7	94	80-120	
Cobalt	ug/L	40	40.3	101	80-120	
Manganese	ug/L	40	40.3	101	80-120	
Selenium	ug/L	40	39.4	99	80-120	
Thallium	ug/L	40	40.7	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3623061 3623062

Parameter	Units	50373865001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	41.3	41.4	102	102	75-125	0	20	
Arsenic	ug/L	ND	40	40	38.7	38.7	96	96	75-125	0	20	
Barium	ug/L	28.9	40	40	71.6	71.1	107	106	75-125	1	20	
Beryllium	ug/L	ND	40	40	38.5	38.1	96	95	75-125	1	20	
Cobalt	ug/L	ND	40	40	38.2	38.8	95	96	75-125	2	20	
Manganese	ug/L	18.4	40	40	56.3	56.4	95	95	75-125	0	20	
Selenium	ug/L	1.1	40	40	39.9	40.4	97	98	75-125	1	20	
Thallium	ug/L	ND	40	40	41.6	41.0	104	102	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

QC Batch: 791622
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373676001, 50373676002, 50373676003

METHOD BLANK: 3622288 Matrix: Water
Associated Lab Samples: 50373676001, 50373676002, 50373676003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	4.4	05/24/24 06:22	

LABORATORY CONTROL SAMPLE: 3622289

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	424	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3622290 3622291

Parameter	Units	50373865001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	421	417	105	103	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

QC Batch: 792033
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373676001, 50373676002, 50373676003

METHOD BLANK: 3624738 Matrix: Water
Associated Lab Samples: 50373676001, 50373676002, 50373676003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/24/24 20:19	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	05/24/24 20:19	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	05/24/24 20:19	

LABORATORY CONTROL SAMPLE: 3624739

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.2	104	90-110	

SAMPLE DUPLICATE: 3624740

Parameter	Units	50373647001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	436	443	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	436	443	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3624741

Parameter	Units	50373655001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	301	304	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	301	304	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

QC Batch: 791563
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373676001, 50373676002, 50373676003

METHOD BLANK: 3622142 Matrix: Water
Associated Lab Samples: 50373676001, 50373676002, 50373676003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/23/24 07:39	

LABORATORY CONTROL SAMPLE: 3622143

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	265	88	80-120	

SAMPLE DUPLICATE: 3622144

Parameter	Units	50373670005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	470	491	4	10	

SAMPLE DUPLICATE: 3622145

Parameter	Units	50373687003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	406	413	2	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

QC Batch: 793681
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373676001, 50373676002, 50373676003

SAMPLE DUPLICATE: 3631403

Parameter	Units	50373647008 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.3	0	2	H3

SAMPLE DUPLICATE: 3631404

Parameter	Units	50374145002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.8	7.8	0	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

QC Batch: 791426
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373676001, 50373676002, 50373676003

METHOD BLANK: 3621354 Matrix: Water
Associated Lab Samples: 50373676001, 50373676002, 50373676003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/22/24 13:17	

LABORATORY CONTROL SAMPLE: 3621355

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3621356 3621357

Parameter	Units	50373647004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	0.065J	0.5	0.5	0.57	0.56	101	98	90-110	3	20	

MATRIX SPIKE SAMPLE: 3621358

Parameter	Units	50373676002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.11	22	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

QC Batch: 791287
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373676001, 50373676002, 50373676003

METHOD BLANK: 3620854 Matrix: Water
Associated Lab Samples: 50373676001, 50373676002, 50373676003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/22/24 02:14	

LABORATORY CONTROL SAMPLE: 3620855

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.99	99	90-110	

MATRIX SPIKE SAMPLE: 3620856

Parameter	Units	50373676001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.0	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3620857 3620858

Parameter	Units	50373760002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.0	1.0	100	101	90-110	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

QC Batch: 792999
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373676001, 50373676002, 50373676003

METHOD BLANK: 3628615 Matrix: Water
Associated Lab Samples: 50373676001, 50373676002, 50373676003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	06/03/24 16:04	

LABORATORY CONTROL SAMPLE: 3628616

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3628617 3628618

Parameter	Units	50373676001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.6	1.5				2		

MATRIX SPIKE SAMPLE: 3628619

Parameter	Units	50374594001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	3.8		5.3			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

QC Batch: 793088
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373676001, 50373676002, 50373676003

METHOD BLANK: 3628913 Matrix: Water
Associated Lab Samples: 50373676001, 50373676002, 50373676003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	05/31/24 15:27	

LABORATORY CONTROL SAMPLE: 3628914

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.6	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3628915 3628916

Parameter	Units	50373655001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	10	10	11.3	11.5	100	103	80-120	2	20	

MATRIX SPIKE SAMPLE: 3628917

Parameter	Units	50373758004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	2.3	10	11.0	86	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

Sample: AP-11B **Lab ID: 50373676001** Collected: 05/20/24 12:34 Received: 05/21/24 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.120 ± 0.646 (1.21) C:NA T:90%**	pCi/L	06/12/24 14:26	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.866 ± 0.462 (0.802) C:77% T:77%**	pCi/L	06/10/24 15:28	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.986 ± 1.11 (2.01)**	pCi/L	06/13/24 14:04	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

Sample: MW-25A **Lab ID: 50373676002** Collected: 05/20/24 15:25 Received: 05/21/24 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.302 ± 0.593 (1.25) C:NA T:88%**	pCi/L	06/12/24 14:26	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.138 ± 0.401 (0.903) C:78% T:74%**	pCi/L	06/10/24 15:28	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.138 ± 0.994 (2.15)**	pCi/L	06/13/24 14:04	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

Sample: MW-25B **Lab ID: 50373676003** Collected: 05/20/24 13:22 Received: 05/21/24 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.181 ± 0.719 (1.32) C:NA T:90%**	pCi/L	06/12/24 14:39	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.0750 ± 0.361 (0.826) C:73% T:88%**	pCi/L	06/10/24 15:28	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.256 ± 1.08 (2.15)**	pCi/L	06/13/24 14:04	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

QC Batch: 670812
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50373676001, 50373676002, 50373676003

METHOD BLANK: 3266847 Matrix: Water
Associated Lab Samples: 50373676001, 50373676002, 50373676003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.143 ± 0.247 (0.442) C:NA T:92%	pCi/L	06/12/24 14:13	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

QC Batch: 670813
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50373676001, 50373676002, 50373676003

METHOD BLANK: 3266848 Matrix: Water
Associated Lab Samples: 50373676001, 50373676002, 50373676003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.274 ± 0.231 (0.608) C:87% T:92%	pCi/L	06/10/24 11:56	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50373676001	**AP-11B**	EPA 9056	792277		
50373676002	**MW-25A**	EPA 9056	792277		
50373676003	**MW-25B**	EPA 9056	792277		
50373676001	**AP-11B**	EPA 3010	791284	EPA 6010	793194
50373676002	**MW-25A**	EPA 3010	791284	EPA 6010	793194
50373676003	**MW-25B**	EPA 3010	791284	EPA 6010	793194
50373676001	**AP-11B**	EPA 3010	791282	EPA 6010	792420
50373676002	**MW-25A**	EPA 3010	791282	EPA 6010	792420
50373676003	**MW-25B**	EPA 3010	791282	EPA 6010	792420
50373676001	**AP-11B**	EPA 200.2	791760	EPA 6020	791990
50373676002	**MW-25A**	EPA 200.2	791760	EPA 6020	791990
50373676003	**MW-25B**	EPA 200.2	791760	EPA 6020	791990
50373676001	**AP-11B**	EPA 200.2	791622	EPA 6020	791840
50373676002	**MW-25A**	EPA 200.2	791622	EPA 6020	791840
50373676003	**MW-25B**	EPA 200.2	791622	EPA 6020	791840
50373676001	**AP-11B**	EPA 7470	792843	EPA 7470	793263
50373676002	**MW-25A**	EPA 7470	792843	EPA 7470	793263
50373676003	**MW-25B**	EPA 7470	792843	EPA 7470	793263
50373676001	**AP-11B**	EPA 903.1	670812		
50373676002	**MW-25A**	EPA 903.1	670812		
50373676003	**MW-25B**	EPA 903.1	670812		
50373676001	**AP-11B**	EPA 904.0	670813		
50373676002	**MW-25A**	EPA 904.0	670813		
50373676003	**MW-25B**	EPA 904.0	670813		
50373676001	**AP-11B**	Total Radium Calculation	675665		
50373676002	**MW-25A**	Total Radium Calculation	675665		
50373676003	**MW-25B**	Total Radium Calculation	675665		
50373676001	**AP-11B**	SM 2320B	792033		
50373676002	**MW-25A**	SM 2320B	792033		
50373676003	**MW-25B**	SM 2320B	792033		
50373676001	**AP-11B**	SM 2540C	791563		
50373676002	**MW-25A**	SM 2540C	791563		
50373676003	**MW-25B**	SM 2540C	791563		
50373676001	**AP-11B**	SM 4500-H+B	793681		
50373676002	**MW-25A**	SM 4500-H+B	793681		
50373676003	**MW-25B**	SM 4500-H+B	793681		
50373676001	**AP-11B**	SM 4500-S2-D	791426		
50373676002	**MW-25A**	SM 4500-S2-D	791426		
50373676003	**MW-25B**	SM 4500-S2-D	791426		
50373676001	**AP-11B**	EPA 353.2	791287		
50373676002	**MW-25A**	EPA 353.2	791287		
50373676003	**MW-25B**	EPA 353.2	791287		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373676

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50373676001	**AP-11B**	EPA 365.1	792999	EPA 365.1	793424
50373676002	**MW-25A**	EPA 365.1	792999	EPA 365.1	793424
50373676003	**MW-25B**	EPA 365.1	792999	EPA 365.1	793424
50373676001	**AP-11B**	SM 5310C	793088		
50373676002	**MW-25A**	SM 5310C	793088		
50373676003	**MW-25B**	SM 5310C	793088		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Anal

The Chain-of-Custody is a LEGAL DOCUME

WO# : 50373676

50373676

Page 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P4 May 2024	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:	P4R3	Pace Profile #:	10498/60

Regulatory Agency

State / Location: IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO3 Wet	(Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity,pH	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum	Residual Chlorine (Y/N)	
	MATRIX: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS																					Y		Y				
1	AP-11A B WHS 5/21/24	WT	G	5/20/24	1234				10	3	2	4		1														001
2	MW-25A				1525																							002
3	MW-25B				1322																							003
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
* Metals: 6010 (B, Cd, Cr, Fe, Pb, Mo, Ca, Mg, Na, K, Li) (11)	Mohammed Bazlamit	5/20/24	1515	Fedex	5/20/24	9:40AM				
3020 (Be, Mn, Co, As, Se, Sb, Ba, Tl) (8), 7470 (Hg)	Fedex	5/21/24	910	Marcee	5/21/24	910	1.7	Y	Y	Y
** Dissolved FF 6010 (B, Mo, Mg, K, Li) (5) FF 6020 (Al) (1)										
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	Mohammed Bazlamit	TEMP in C	Received on Ice (Y/N)
SIGNATURE of SAMPLER:	DATE Signed: 5/20/24	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 5/21/24 1004 mw

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H
4. **Cooler Temperature(s):** 1.9 / 1.7 | | | |
   (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **Was the PM notified of out of temp cooler?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C
8. **EZ Bottle Order?** ☐ Yes ☑ No
   If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis: NO3	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID		✓	Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS: Sample point 1 ID on COC is AP-11A. Samples say AP-11B mw 5/21/24

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1													1			2	1	2	1	1	1		1					WG	✓	✓		✓
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP3R	250mL Unpres. FF SO4/OH buffer
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

July 24, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 P4R4
Pace Project No.: 50373683

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 21, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373683

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373683

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50373683001	**MW-45A**	Water	05/20/24 14:30	05/21/24 09:10

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373683

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50373683001	**MW-45A**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	ABH	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	DMT	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373683

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50373683001	**MW-45A**					
EPA 9056	Chloride	7.7	mg/L	0.25	05/29/24 23:51	
EPA 9056	Fluoride	0.69	mg/L	0.10	05/29/24 23:51	
EPA 9056	Sulfate	486	mg/L	2.5	05/30/24 00:07	
EPA 6010	Boron	714	ug/L	100	05/31/24 22:36	
EPA 6010	Calcium	195000	ug/L	1000	05/31/24 22:36	
EPA 6010	Iron	8980	ug/L	100	05/31/24 22:36	
EPA 6010	Magnesium	62100	ug/L	1000	05/31/24 22:36	
EPA 6010	Potassium	1280	ug/L	1000	05/31/24 22:36	
EPA 6010	Sodium	8810	ug/L	1000	05/31/24 22:36	
EPA 6010	Boron, Dissolved	691	ug/L	100	05/28/24 21:36	
EPA 6010	Lithium, Dissolved	22.0	ug/L	20.0	05/28/24 21:36	
EPA 6010	Magnesium, Dissolved	59600	ug/L	1000	05/28/24 21:36	
EPA 6010	Potassium, Dissolved	1160	ug/L	1000	05/28/24 21:36	
EPA 6020	Barium	36.6	ug/L	1.0	05/26/24 21:25	
EPA 6020	Manganese	478	ug/L	4.0	06/02/24 22:38	
EPA 903.1	Radium-226	0.837 ± 0.709 (1.08) C:NA T:91%	pCi/L		06/12/24 14:26	
EPA 904.0	Radium-228	0.219 ± 0.347 (0.751) C:82% T:82%	pCi/L		06/10/24 11:57	
Total Radium Calculation	Total Radium	1.06 ± 1.06 (1.83)	pCi/L		06/13/24 14:04	
SM 2320B	Alkalinity, Total as CaCO3	327	mg/L	10.0	05/24/24 20:19	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	327	mg/L	10.0	05/24/24 20:19	
SM 2540C	Total Dissolved Solids	949	mg/L	10.0	05/23/24 07:43	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	06/04/24 15:48	H3
EPA 365.1	Phosphate as P04	0.31	mg/L	0.15	06/03/24 16:13	
SM 5310C	Dissolved Organic Carbon	1.1	mg/L	1.0	05/31/24 20:20	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373683

Sample: MW-45A **Lab ID: 50373683001** Collected: 05/20/24 14:30 Received: 05/21/24 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**7.7**	mg/L	0.25	0.067	1		05/29/24 23:51	16887-00-6	
Fluoride	**0.69**	mg/L	0.10	0.017	1		05/29/24 23:51	16984-48-8	
Sulfate	**486**	mg/L	2.5	1.9	10		05/30/24 00:07	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**714**	ug/L	100	6.2	1	05/27/24 20:38	05/31/24 22:36	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/27/24 20:38	05/31/24 22:36	7440-43-9	
Calcium	**195000**	ug/L	1000	67.7	1	05/27/24 20:38	05/31/24 22:36	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/27/24 20:38	05/31/24 22:36	7440-47-3	
Iron	**8980**	ug/L	100	30.0	1	05/27/24 20:38	05/31/24 22:36	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/27/24 20:38	05/31/24 22:36	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/27/24 20:38	05/31/24 22:36	7439-93-2	
Magnesium	**62100**	ug/L	1000	33.6	1	05/27/24 20:38	05/31/24 22:36	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	05/27/24 20:38	05/31/24 22:36	7439-98-7	
Potassium	**1280**	ug/L	1000	97.8	1	05/27/24 20:38	05/31/24 22:36	7440-09-7	
Sodium	**8810**	ug/L	1000	54.8	1	05/27/24 20:38	05/31/24 22:36	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**691**	ug/L	100	11.4	1	05/23/24 21:53	05/28/24 21:36	7440-42-8	
Lithium, Dissolved	**22.0**	ug/L	20.0	5.1	1	05/23/24 21:53	05/28/24 21:36	7439-93-2	
Magnesium, Dissolved	**59600**	ug/L	1000	32.8	1	05/23/24 21:53	05/28/24 21:36	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	05/23/24 21:53	05/28/24 21:36	7439-98-7	
Potassium, Dissolved	**1160**	ug/L	1000	120	1	05/23/24 21:53	05/28/24 21:36	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.044	1	05/24/24 07:32	05/26/24 21:25	7440-36-0	
Arsenic	ND	ug/L	1.0	0.064	1	05/24/24 07:32	05/26/24 21:25	7440-38-2	
Barium	**36.6**	ug/L	1.0	0.067	1	05/24/24 07:32	05/26/24 21:25	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	05/24/24 07:32	05/26/24 21:25	7440-41-7	
Cobalt	ND	ug/L	1.0	0.024	1	05/24/24 07:32	05/26/24 21:25	7440-48-4	
Manganese	**478**	ug/L	4.0	0.17	4	05/24/24 07:32	06/02/24 22:38	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	05/24/24 07:32	05/26/24 21:25	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	05/24/24 07:32	05/26/24 21:25	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	05/23/24 15:36	05/24/24 08:00	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/31/24 09:53	06/02/24 16:57	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373683

Sample: MW-45A **Lab ID: 50373683001** Collected: 05/20/24 14:30 Received: 05/21/24 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**327**	mg/L	10.0	10.0	1		05/24/24 20:19		
Alkalinity,Bicarbonate (CaCO3)	**327**	mg/L	10.0	10.0	1		05/24/24 20:19		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/24/24 20:19		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**949**	mg/L	10.0	10.0	1		05/23/24 07:43		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		06/04/24 15:48		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/22/24 13:17	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/22/24 02:38	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.31**	mg/L	0.15	0.13	1	05/31/24 11:30	06/03/24 16:13		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.1**	mg/L	1.0	0.25	1		05/31/24 20:20		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373683

QC Batch: 792277
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50373683001

METHOD BLANK: 3626003 Matrix: Water
Associated Lab Samples: 50373683001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/29/24 12:48	
Fluoride	mg/L	ND	0.10	0.017	05/29/24 12:48	
Sulfate	mg/L	ND	0.25	0.19	05/29/24 12:48	

LABORATORY CONTROL SAMPLE: 3626004

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	98	80-120	
Fluoride	mg/L	1	1.1	108	80-120	
Sulfate	mg/L	5	5.1	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3626005 3626006

Parameter	Units	50373639001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	203	25	25	231	230	112	109	80-120	0	15	
Fluoride	mg/L	0.21	1	1	1.4	1.4	115	119	80-120	3	15	
Sulfate	mg/L	567	500	500	1070	1070	101	101	80-120	0	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3626007 3626008

Parameter	Units	50373639004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	84.3	25	25	106	106	85	85	80-120	0	15	
Fluoride	mg/L	ND	1	1	1.1	1.1	101	100	80-120	1	15	
Sulfate	mg/L	194	50	50	236	236	84	85	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373683

QC Batch: 792843
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373683001

METHOD BLANK: 3627997 Matrix: Water
Associated Lab Samples: 50373683001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	06/02/24 16:40	

LABORATORY CONTROL SAMPLE: 3627998

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3627999 3628000

Parameter	Units	50373676003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.0	5.0	100	100	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373683

QC Batch: 791284
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373683001

METHOD BLANK: 3620847 Matrix: Water
Associated Lab Samples: 50373683001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	05/31/24 22:00	
Cadmium	ug/L	ND	2.0	0.60	05/31/24 22:00	
Calcium	ug/L	ND	1000	67.7	05/31/24 22:00	
Chromium	ug/L	ND	10.0	0.42	05/31/24 22:00	
Iron	ug/L	ND	100	30.0	05/31/24 22:00	
Lead	ug/L	ND	10.0	2.5	05/31/24 22:00	
Lithium	ug/L	ND	20.0	6.8	05/31/24 22:00	
Magnesium	ug/L	ND	1000	33.6	05/31/24 22:00	
Molybdenum	ug/L	ND	10.0	0.78	05/31/24 22:00	
Potassium	ug/L	ND	1000	97.8	05/31/24 22:00	
Sodium	ug/L	ND	1000	54.8	05/31/24 22:00	

LABORATORY CONTROL SAMPLE: 3620848

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	968	97	80-120	
Cadmium	ug/L	1000	974	97	80-120	
Calcium	ug/L	10000	9900	99	80-120	
Chromium	ug/L	1000	969	97	80-120	
Iron	ug/L	10000	9680	97	80-120	
Lead	ug/L	1000	965	97	80-120	
Lithium	ug/L	1000	991	99	80-120	
Magnesium	ug/L	10000	9770	98	80-120	
Molybdenum	ug/L	1000	1040	104	80-120	
Potassium	ug/L	10000	9720	97	80-120	
Sodium	ug/L	10000	9690	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3620849 3620850

Parameter	Units	50373670001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	0.93 mg/L	1000	1000	1930	1920	100	99	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	956	954	96	95	75-125	0	20	
Calcium	ug/L	168 mg/L	10000	10000	180000	179000	124	114	75-125	1	20	
Chromium	ug/L	ND	1000	1000	933	936	93	94	75-125	0	20	
Iron	ug/L	ND	10000	10000	9260	9320	92	93	75-125	1	20	
Lead	ug/L	ND	1000	1000	924	920	92	92	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373683

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3620849 3620850

Parameter	Units	50373670001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	ND	1000	1000	968	978	96	97	75-125	1	20	
Magnesium	ug/L	22.9 mg/L	10000	10000	32800	32500	98	96	75-125	1	20	
Molybdenum	ug/L	ND	1000	1000	1020	1020	102	102	75-125	1	20	
Potassium	ug/L	3.1 mg/L	10000	10000	12500	12600	94	96	75-125	1	20	
Sodium	ug/L	21.6 mg/L	10000	10000	30300	30300	87	87	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373683

QC Batch: 791282
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50373683001

METHOD BLANK: 3620839 Matrix: Water
Associated Lab Samples: 50373683001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	11.4	05/28/24 20:39	
Lithium, Dissolved	ug/L	ND	20.0	5.1	05/28/24 20:39	
Magnesium, Dissolved	ug/L	ND	1000	32.8	05/28/24 20:39	
Molybdenum, Dissolved	ug/L	ND	10.0	1.1	05/28/24 20:39	
Potassium, Dissolved	ug/L	ND	1000	120	05/28/24 20:39	

LABORATORY CONTROL SAMPLE: 3620840

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	925	93	80-120	
Lithium, Dissolved	ug/L	1000	992	99	80-120	
Magnesium, Dissolved	ug/L	10000	9440	94	80-120	
Molybdenum, Dissolved	ug/L	1000	964	96	80-120	
Potassium, Dissolved	ug/L	10000	9400	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3620841 3620842

Parameter	Units	50373674001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	<0.30 mg/L	1000	1000	999	989	97	96	75-125	1	20	
Lithium, Dissolved	ug/L	<0.010 mg/L	1000	1000	1000	996	100	99	75-125	0	20	
Magnesium, Dissolved	ug/L	4.3 mg/L	10000	10000	13600	13500	93	91	75-125	1	20	
Molybdenum, Dissolved	ug/L	<0.050 mg/L	1000	1000	1020	1010	99	98	75-125	1	20	
Potassium, Dissolved	ug/L	6.0 mg/L	10000	10000	15500	15400	95	94	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373683

QC Batch: 791760
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50373683001

METHOD BLANK: 3623059 Matrix: Water
Associated Lab Samples: 50373683001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.044	05/26/24 20:13	
Arsenic	ug/L	ND	1.0	0.064	05/26/24 20:13	
Barium	ug/L	ND	1.0	0.067	05/26/24 20:13	
Beryllium	ug/L	ND	0.20	0.026	05/26/24 20:13	
Cobalt	ug/L	ND	1.0	0.024	05/26/24 20:13	
Manganese	ug/L	ND	1.0	0.043	05/26/24 20:13	
Selenium	ug/L	ND	1.0	0.23	05/26/24 20:13	
Thallium	ug/L	ND	1.0	0.042	05/26/24 20:13	

LABORATORY CONTROL SAMPLE: 3623060

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	40.7	102	80-120	
Arsenic	ug/L	40	38.5	96	80-120	
Barium	ug/L	40	38.5	96	80-120	
Beryllium	ug/L	40	37.7	94	80-120	
Cobalt	ug/L	40	40.3	101	80-120	
Manganese	ug/L	40	40.3	101	80-120	
Selenium	ug/L	40	39.4	99	80-120	
Thallium	ug/L	40	40.7	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3623061 3623062

Parameter	Units	50373865001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	41.3	41.4	102	102	75-125	0	20	
Arsenic	ug/L	ND	40	40	38.7	38.7	96	96	75-125	0	20	
Barium	ug/L	28.9	40	40	71.6	71.1	107	106	75-125	1	20	
Beryllium	ug/L	ND	40	40	38.5	38.1	96	95	75-125	1	20	
Cobalt	ug/L	ND	40	40	38.2	38.8	95	96	75-125	2	20	
Manganese	ug/L	18.4	40	40	56.3	56.4	95	95	75-125	0	20	
Selenium	ug/L	1.1	40	40	39.9	40.4	97	98	75-125	1	20	
Thallium	ug/L	ND	40	40	41.6	41.0	104	102	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373683

QC Batch: 791622
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373683001

METHOD BLANK: 3622288 Matrix: Water
Associated Lab Samples: 50373683001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	4.4	05/24/24 06:22	

LABORATORY CONTROL SAMPLE: 3622289

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	424	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3622290 3622291

Parameter	Units	50373865001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	421	417	105	103	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373683

QC Batch: 792033
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373683001

METHOD BLANK: 3624738 Matrix: Water
Associated Lab Samples: 50373683001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/24/24 20:19	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	05/24/24 20:19	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	05/24/24 20:19	

LABORATORY CONTROL SAMPLE: 3624739

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.2	104	90-110	

SAMPLE DUPLICATE: 3624740

Parameter	Units	50373647001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	436	443	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	436	443	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3624741

Parameter	Units	50373655001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	301	304	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	301	304	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373683

QC Batch: 791563
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373683001

METHOD BLANK: 3622142 Matrix: Water
Associated Lab Samples: 50373683001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/23/24 07:39	

LABORATORY CONTROL SAMPLE: 3622143

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	265	88	80-120	

SAMPLE DUPLICATE: 3622144

Parameter	Units	50373670005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	470	491	4	10	

SAMPLE DUPLICATE: 3622145

Parameter	Units	50373687003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	406	413	2	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373683

QC Batch: 793681
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50373683001

SAMPLE DUPLICATE: 3631403

Parameter	Units	50373647008 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.3	0	2	H3

SAMPLE DUPLICATE: 3631404

Parameter	Units	50374145002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.8	7.8	0	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373683

QC Batch: 791426
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373683001

METHOD BLANK: 3621354 Matrix: Water
Associated Lab Samples: 50373683001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/22/24 13:17	

LABORATORY CONTROL SAMPLE: 3621355

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3621356 3621357

Parameter	Units	50373647004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	0.065J	0.5	0.5	0.57	0.56	101	98	90-110	3	20	

MATRIX SPIKE SAMPLE: 3621358

Parameter	Units	50373676002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.11	22	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373683

QC Batch: 791287
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373683001

METHOD BLANK: 3620854 Matrix: Water
Associated Lab Samples: 50373683001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/22/24 02:14	

LABORATORY CONTROL SAMPLE: 3620855

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.99	99	90-110	

MATRIX SPIKE SAMPLE: 3620856

Parameter	Units	50373676001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.0	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3620857 3620858

Parameter	Units	50373760002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.0	1.0	100	101	90-110	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373683

QC Batch: 792999
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373683001

METHOD BLANK: 3628615 Matrix: Water
Associated Lab Samples: 50373683001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	06/03/24 16:04	

LABORATORY CONTROL SAMPLE: 3628616

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3628617 3628618

Parameter	Units	50373676001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.6	1.5				2		

MATRIX SPIKE SAMPLE: 3628619

Parameter	Units	50374594001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	3.8		5.3			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373683

QC Batch: 793088
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373683001

METHOD BLANK: 3628913 Matrix: Water
Associated Lab Samples: 50373683001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	05/31/24 15:27	

LABORATORY CONTROL SAMPLE: 3628914

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.6	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3628915 3628916

Parameter	Units	50373655001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	10	10	11.3	11.5	100	103	80-120	2	20	

MATRIX SPIKE SAMPLE: 3628917

Parameter	Units	50373758004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	2.3	10	11.0	86	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373683

Sample: MW-45A **Lab ID: 50373683001** Collected: 05/20/24 14:30 Received: 05/21/24 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.837 ± 0.709 (1.08) C:NA T:91%**	pCi/L	06/12/24 14:26	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.219 ± 0.347 (0.751) C:82% T:82%**	pCi/L	06/10/24 11:57	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.06 ± 1.06 (1.83)**	pCi/L	06/13/24 14:04	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373683

QC Batch: 670812
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50373683001

METHOD BLANK: 3266847 Matrix: Water
Associated Lab Samples: 50373683001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.143 ± 0.247 (0.442) C:NA T:92%	pCi/L	06/12/24 14:13	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373683

QC Batch: 670813
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50373683001

METHOD BLANK: 3266848 Matrix: Water
Associated Lab Samples: 50373683001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.274 ± 0.231 (0.608) C:87% T:92%	pCi/L	06/10/24 11:56	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373683

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373683

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50373683001	**MW-45A**	EPA 9056	792277		
50373683001	**MW-45A**	EPA 3010	791284	EPA 6010	793194
50373683001	**MW-45A**	EPA 3010	791282	EPA 6010	792420
50373683001	**MW-45A**	EPA 200.2	791760	EPA 6020	791990
50373683001	**MW-45A**	EPA 200.2	791622	EPA 6020	791840
50373683001	**MW-45A**	EPA 7470	792843	EPA 7470	793263
50373683001	**MW-45A**	EPA 903.1	670812		
50373683001	**MW-45A**	EPA 904.0	670813		
50373683001	**MW-45A**	Total Radium Calculation	675665		
50373683001	**MW-45A**	SM 2320B	792033		
50373683001	**MW-45A**	SM 2540C	791563		
50373683001	**MW-45A**	SM 4500-H+B	793681		
50373683001	**MW-45A**	SM 4500-S2-D	791426		
50373683001	**MW-45A**	EPA 353.2	791287		
50373683001	**MW-45A**	EPA 365.1	792999	EPA 365.1	793424
50373683001	**MW-45A**	SM 5310C	793088		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

WO# : 50373683

50373683

CHAIN-OF-CUST

The Chain-of-Custody is a L … rately.

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Info…	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P4 May 2024	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:	P4R4	Pace Profile #:	10498/60

Regulatory Agency
State / Location
IN

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO3 Wet	(Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity,pH	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum	Residual Chlorine (Y/N)
	Requested Analysis Filtered (Y/N)																					Y			Y				
1	MW-45 A	W	G	5/20/24	1430				10	3	2	4		1					X	X	X	X	X	X	XX	X		
2																												
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Metals: 6010 (B, Cd, Cr, Fe, Pb, Mo, Ca, Mg, Na, K, Li) (11)	Mohammed Bazlamit	5/20/24	1515	Fed Ex	5/20	15:15	0.3	Y	Y	Y
020 (Be, Mn, Co, As, Se, Sb, Ba, Tl) (8), 7470 (Hg)	Fed Ex	5/21	910	Chelsea B	5/21	910				
* Dissolved FF 6010 (B, Mo, Mg, K, Li) (5) FF 6020 (Al) (1)										
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	Mohammed Bazlamit		TEMP in C
SIGNATURE of SAMPLER:		DATE Signed: 5/20/24	Received on Ice (Y/N)
			Custody Sealed Cooler (Y/N)
			Samples Intact (Y/N)

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: CB 5/21/24 10:36

1. **Courier:** ☑ FED EX | UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT | OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H
4. **Cooler Temperature(s):** 0.3/0.3 | | |
   (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **Was the PM notified of out of temp cooler?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C
8. **EZ Bottle Order?** ☐ Yes ☑ No
   If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓
Short Hold Time Analysis (48 hours or less)? **Analysis:**		✓
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:	✓
Rush TAT Requested (4 days or less):		✓
Custody Signatures Present?	✓	
Containers Intact?:	✓	
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓	
Extra labels on Terracore Vials? (soils only)		✓

	Yes	No	N/A
All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.**	✓		
Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form			
	Present	Absent	N/A
Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Residual Chlorine Check (Total/Amenable/Free Cyanide)		✓	
Headspace Wisconsin Sulfide?			✓
Headspace in VOA Vials (>6mm): See Containter Count form for details		✓	No VOA Vials Sent ✓
Trip Blank Present?		✓	
Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE \ of \

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1													1			2	1	2	1	1	1		1					WT	✓	✓		✓
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

July 24, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 22, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50373785001	**MW-45I**	Water	05/21/24 12:10	05/22/24 09:30
50373785002	**MW-45B**	Water	05/21/24 13:30	05/22/24 09:30
50373785003	**MW-45B MS**	Water	05/21/24 13:30	05/22/24 09:30
50373785004	**MW-45B MSD**	Water	05/21/24 13:30	05/22/24 09:30
50373785005	**MW-46B**	Water	05/21/24 15:10	05/22/24 09:30

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50373785001	**MW-45I**	EPA 9056	KBB	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	ELK	5	PASI-I
		EPA 6020	CAW	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	DMC	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50373785002	**MW-45B**	EPA 9056	KBB	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	ELK	5	PASI-I
		EPA 6020	CAW	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	DMC	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50373785003	**MW-45B MS**	EPA 903.1	DMC	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
50373785004	**MW-45B MSD**	EPA 903.1	DMC	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
50373785005	**MW-46B**	EPA 9056	KBB	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	ELK	5	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	CAW	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	DMC	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50373785001	**MW-45I**					
EPA 9056	Chloride	9.5	mg/L	0.25	05/31/24 20:33	
EPA 9056	Fluoride	0.19	mg/L	0.10	05/31/24 20:33	
EPA 9056	Sulfate	422	mg/L	2.5	05/31/24 20:50	
EPA 6010	Boron	435	ug/L	100	06/01/24 00:40	
EPA 6010	Calcium	185000	ug/L	1000	06/01/24 00:40	
EPA 6010	Iron	7490	ug/L	100	06/01/24 00:40	
EPA 6010	Magnesium	56300	ug/L	1000	06/01/24 00:40	
EPA 6010	Sodium	7150	ug/L	1000	06/01/24 00:40	
EPA 6010	Boron, Dissolved	441	ug/L	100	06/03/24 14:38	
EPA 6010	Magnesium, Dissolved	58500	ug/L	1000	06/03/24 14:38	
EPA 6020	Arsenic	2.7	ug/L	1.0	05/29/24 17:47	
EPA 6020	Barium	77.2	ug/L	1.0	05/29/24 17:47	
EPA 6020	Cobalt	1.4	ug/L	1.0	05/29/24 17:47	
EPA 6020	Manganese	751	ug/L	10.0	05/29/24 17:43	
EPA 903.1	Radium-226	0.198 ± 0.502 (0.931) C:NA T:88%	pCi/L		06/14/24 14:50	
EPA 904.0	Radium-228	0.467 ± 0.340 (0.651) C:78% T:90%	pCi/L		06/12/24 14:25	
Total Radium Calculation	Total Radium	0.665 ± 0.842 (1.58)	pCi/L		06/14/24 17:13	
SM 2320B	Alkalinity, Total as CaCO3	337	mg/L	10.0	05/29/24 20:38	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	337	mg/L	10.0	05/29/24 20:38	
SM 2540C	Total Dissolved Solids	906	mg/L	10.0	05/28/24 11:25	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	06/05/24 13:05	H3
EPA 365.1	Phosphate as P04	0.68	mg/L	0.15	06/06/24 15:30	
SM 5310C	Dissolved Organic Carbon	2.9	mg/L	1.0	06/06/24 17:57	
50373785002	**MW-45B**					
EPA 9056	Chloride	5.7	mg/L	0.25	05/31/24 21:08	
EPA 9056	Fluoride	0.13	mg/L	0.10	05/31/24 21:08	
EPA 9056	Sulfate	196	mg/L	2.5	05/31/24 21:25	
EPA 6010	Calcium	133000	ug/L	1000	06/01/24 00:42	
EPA 6010	Iron	351	ug/L	100	06/01/24 00:42	
EPA 6010	Magnesium	44300	ug/L	1000	06/01/24 00:42	
EPA 6010	Sodium	4520	ug/L	1000	06/01/24 00:42	
EPA 6010	Magnesium, Dissolved	45900	ug/L	1000	06/03/24 14:39	
EPA 6020	Barium	69.9	ug/L	1.0	05/29/24 17:18	
EPA 6020	Manganese	257	ug/L	2.0	05/29/24 16:52	
EPA 903.1	Radium-226	0.000 ± 0.342 (0.711) C:NA T:84%	pCi/L		06/14/24 14:50	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50373785002	**MW-45B**					
EPA 904.0	Radium-228	0.419 ± 0.344 (0.683) C:83% T:87%	pCi/L		06/12/24 14:25	
Total Radium Calculation	Total Radium	0.419 ± 0.686 (1.39)	pCi/L		06/14/24 17:13	
SM 2320B	Alkalinity, Total as CaCO3	333	mg/L	10.0	05/29/24 20:38	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	333	mg/L	10.0	05/29/24 20:38	
SM 2540C	Total Dissolved Solids	589	mg/L	10.0	05/24/24 12:34	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	06/05/24 13:06	H3
SM 5310C	Dissolved Organic Carbon	1.4	mg/L	1.0	06/06/24 18:07	
50373785003	**MW-45B MS**					
EPA 903.1	Radium-226	103.12 %REC ± NA (NA) C:NA T:NA	pCi/L		06/14/24 14:50	
EPA 904.0	Radium-228	82.20 %REC ± NA (NA) C:NA T:NA	pCi/L		06/12/24 14:25	
50373785004	**MW-45B MSD**					
EPA 903.1	Radium-226	84.10 %REC 20.32RPD ± NA (NA) C:NA T:NA	pCi/L		06/14/24 14:50	
EPA 904.0	Radium-228	90.76 %REC 9.90RPD ± NA (NA) C:NA T:NA	pCi/L		06/12/24 14:25	
50373785005	**MW-46B**					
EPA 9056	Chloride	9.4	mg/L	0.25	05/31/24 22:17	
EPA 9056	Fluoride	0.11	mg/L	0.10	05/31/24 22:17	
EPA 9056	Sulfate	78.9	mg/L	2.5	05/31/24 22:35	
EPA 6010	Calcium	134000	ug/L	1000	06/01/24 00:54	
EPA 6010	Iron	3940	ug/L	100	06/01/24 00:54	
EPA 6010	Magnesium	42100	ug/L	1000	06/01/24 00:54	
EPA 6010	Sodium	5970	ug/L	1000	06/01/24 00:54	
EPA 6010	Magnesium, Dissolved	43700	ug/L	1000	06/03/24 14:48	
EPA 6020	Barium	90.4	ug/L	1.0	05/29/24 17:54	
EPA 6020	Manganese	1500	ug/L	10.0	05/29/24 17:58	
EPA 903.1	Radium-226	0.612 ± 0.799 (1.34) C:NA T:89%	pCi/L		06/14/24 14:50	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50373785005	**MW-46B**					
EPA 904.0	Radium-228	0.453 ± 0.343 (0.667) C:82% T:83%	pCi/L		06/12/24 14:25	
Total Radium Calculation	Total Radium	1.07 ± 1.14 (2.01)	pCi/L		06/14/24 17:13	
SM 2320B	Alkalinity, Total as CaCO3	459	mg/L	10.0	05/29/24 20:38	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	459	mg/L	10.0	05/29/24 20:38	
SM 2540C	Total Dissolved Solids	561	mg/L	10.0	05/28/24 11:26	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	06/05/24 13:07	H3
EPA 365.1	Phosphate as P04	0.63	mg/L	0.15	06/06/24 15:34	
SM 5310C	Dissolved Organic Carbon	2.9	mg/L	1.0	06/06/24 18:38	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

Sample: MW-45I **Lab ID: 50373785001** Collected: 05/21/24 12:10 Received: 05/22/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**9.5**	mg/L	0.25	0.067	1		05/31/24 20:33	16887-00-6	
Fluoride	**0.19**	mg/L	0.10	0.017	1		05/31/24 20:33	16984-48-8	
Sulfate	**422**	mg/L	2.5	1.9	10		05/31/24 20:50	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**435**	ug/L	100	6.2	1	05/27/24 20:38	06/01/24 00:40	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/27/24 20:38	06/01/24 00:40	7440-43-9	
Calcium	**185000**	ug/L	1000	67.7	1	05/27/24 20:38	06/01/24 00:40	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/27/24 20:38	06/01/24 00:40	7440-47-3	
Iron	**7490**	ug/L	100	30.0	1	05/27/24 20:38	06/01/24 00:40	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/27/24 20:38	06/01/24 00:40	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/27/24 20:38	06/01/24 00:40	7439-93-2	
Magnesium	**56300**	ug/L	1000	33.6	1	05/27/24 20:38	06/01/24 00:40	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	05/27/24 20:38	06/01/24 00:40	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	05/27/24 20:38	06/01/24 00:40	7440-09-7	
Sodium	**7150**	ug/L	1000	54.8	1	05/27/24 20:38	06/01/24 00:40	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**441**	ug/L	100	6.2	1	06/02/24 20:40	06/03/24 14:38	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	06/02/24 20:40	06/03/24 14:38	7439-93-2	
Magnesium, Dissolved	**58500**	ug/L	1000	33.6	1	06/02/24 20:40	06/03/24 14:38	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	06/02/24 20:40	06/03/24 14:38	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	97.8	1	06/02/24 20:40	06/03/24 14:38	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.49	1	05/27/24 15:09	05/29/24 17:47	7440-36-0	
Arsenic	**2.7**	ug/L	1.0	0.075	1	05/27/24 15:09	05/29/24 17:47	7440-38-2	
Barium	**77.2**	ug/L	1.0	0.077	1	05/27/24 15:09	05/29/24 17:47	7440-39-3	
Beryllium	ND	ug/L	0.20	0.035	1	05/27/24 15:09	05/29/24 17:47	7440-41-7	
Cobalt	**1.4**	ug/L	1.0	0.046	1	05/27/24 15:09	05/29/24 17:47	7440-48-4	
Manganese	**751**	ug/L	10.0	1.7	10	05/27/24 15:09	05/29/24 17:43	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	05/27/24 15:09	05/29/24 17:47	7782-49-2	
Thallium	ND	ug/L	1.0	0.040	1	05/27/24 15:09	05/29/24 17:47	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/27/24 15:09	05/30/24 00:14	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/31/24 09:56	06/02/24 18:00	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

Sample: MW-45I **Lab ID: 50373785001** Collected: 05/21/24 12:10 Received: 05/22/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**337**	mg/L	10.0	10.0	1		05/29/24 20:38		
Alkalinity,Bicarbonate (CaCO3)	**337**	mg/L	10.0	10.0	1		05/29/24 20:38		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/29/24 20:38		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**906**	mg/L	10.0	10.0	1		05/28/24 11:25		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		06/05/24 13:05		H3
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/22/24 23:02	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.68**	mg/L	0.15	0.13	1	05/31/24 13:00	06/06/24 15:30		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.9**	mg/L	1.0	0.25	1		06/06/24 17:57		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

Sample: MW-45B **Lab ID: 50373785002** Collected: 05/21/24 13:30 Received: 05/22/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**5.7**	mg/L	0.25	0.067	1		05/31/24 21:08	16887-00-6	
Fluoride	**0.13**	mg/L	0.10	0.017	1		05/31/24 21:08	16984-48-8	
Sulfate	**196**	mg/L	2.5	1.9	10		05/31/24 21:25	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	ND	ug/L	100	6.2	1	05/27/24 20:38	06/01/24 00:42	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/27/24 20:38	06/01/24 00:42	7440-43-9	
Calcium	**133000**	ug/L	1000	67.7	1	05/27/24 20:38	06/01/24 00:42	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/27/24 20:38	06/01/24 00:42	7440-47-3	
Iron	**351**	ug/L	100	30.0	1	05/27/24 20:38	06/01/24 00:42	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/27/24 20:38	06/01/24 00:42	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/27/24 20:38	06/01/24 00:42	7439-93-2	
Magnesium	**44300**	ug/L	1000	33.6	1	05/27/24 20:38	06/01/24 00:42	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	05/27/24 20:38	06/01/24 00:42	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	05/27/24 20:38	06/01/24 00:42	7440-09-7	
Sodium	**4520**	ug/L	1000	54.8	1	05/27/24 20:38	06/01/24 00:42	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	ND	ug/L	100	6.2	1	06/02/24 20:40	06/03/24 14:39	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	06/02/24 20:40	06/03/24 14:39	7439-93-2	
Magnesium, Dissolved	**45900**	ug/L	1000	33.6	1	06/02/24 20:40	06/03/24 14:39	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	06/02/24 20:40	06/03/24 14:39	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	97.8	1	06/02/24 20:40	06/03/24 14:39	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.49	1	05/27/24 15:09	05/29/24 17:18	7440-36-0	
Arsenic	ND	ug/L	1.0	0.075	1	05/27/24 15:09	05/29/24 17:18	7440-38-2	
Barium	**69.9**	ug/L	1.0	0.077	1	05/27/24 15:09	05/29/24 17:18	7440-39-3	
Beryllium	ND	ug/L	0.20	0.035	1	05/27/24 15:09	05/29/24 17:18	7440-41-7	
Cobalt	ND	ug/L	1.0	0.046	1	05/27/24 15:09	05/29/24 17:18	7440-48-4	
Manganese	**257**	ug/L	2.0	0.34	2	05/27/24 15:09	05/29/24 16:52	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	05/27/24 15:09	05/29/24 17:18	7782-49-2	
Thallium	ND	ug/L	1.0	0.040	1	05/27/24 15:09	05/29/24 17:18	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/27/24 15:09	05/29/24 23:49	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/31/24 09:56	06/02/24 18:03	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

Sample: MW-45B **Lab ID: 50373785002** Collected: 05/21/24 13:30 Received: 05/22/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**333**	mg/L	10.0	10.0	1		05/29/24 20:38		
Alkalinity,Bicarbonate (CaCO3)	**333**	mg/L	10.0	10.0	1		05/29/24 20:38		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/29/24 20:38		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**589**	mg/L	10.0	10.0	1		05/24/24 12:34		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		06/05/24 13:06		H3
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/22/24 23:19	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	05/31/24 13:00	06/06/24 15:30		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.4**	mg/L	1.0	0.25	1		06/06/24 18:07		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

Sample: MW-46B **Lab ID: 50373785005** Collected: 05/21/24 15:10 Received: 05/22/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**9.4**	mg/L	0.25	0.067	1		05/31/24 22:17	16887-00-6	
Fluoride	**0.11**	mg/L	0.10	0.017	1		05/31/24 22:17	16984-48-8	
Sulfate	**78.9**	mg/L	2.5	1.9	10		05/31/24 22:35	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	ND	ug/L	100	6.2	1	05/27/24 20:38	06/01/24 00:54	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/27/24 20:38	06/01/24 00:54	7440-43-9	
Calcium	**134000**	ug/L	1000	67.7	1	05/27/24 20:38	06/01/24 00:54	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/27/24 20:38	06/01/24 00:54	7440-47-3	
Iron	**3940**	ug/L	100	30.0	1	05/27/24 20:38	06/01/24 00:54	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/27/24 20:38	06/01/24 00:54	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/27/24 20:38	06/01/24 00:54	7439-93-2	
Magnesium	**42100**	ug/L	1000	33.6	1	05/27/24 20:38	06/01/24 00:54	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	05/27/24 20:38	06/01/24 00:54	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	05/27/24 20:38	06/01/24 00:54	7440-09-7	
Sodium	**5970**	ug/L	1000	54.8	1	05/27/24 20:38	06/01/24 00:54	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	ND	ug/L	100	6.2	1	06/02/24 20:40	06/03/24 14:48	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	06/02/24 20:40	06/03/24 14:48	7439-93-2	
Magnesium, Dissolved	**43700**	ug/L	1000	33.6	1	06/02/24 20:40	06/03/24 14:48	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	06/02/24 20:40	06/03/24 14:48	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	97.8	1	06/02/24 20:40	06/03/24 14:48	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.49	1	05/27/24 15:09	05/29/24 17:54	7440-36-0	
Arsenic	ND	ug/L	1.0	0.075	1	05/27/24 15:09	05/29/24 17:54	7440-38-2	
Barium	**90.4**	ug/L	1.0	0.077	1	05/27/24 15:09	05/29/24 17:54	7440-39-3	
Beryllium	ND	ug/L	0.20	0.035	1	05/27/24 15:09	05/29/24 17:54	7440-41-7	
Cobalt	ND	ug/L	1.0	0.046	1	05/27/24 15:09	05/29/24 17:54	7440-48-4	
Manganese	**1500**	ug/L	10.0	1.7	10	05/27/24 15:09	05/29/24 17:58	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	05/27/24 15:09	05/29/24 17:54	7782-49-2	
Thallium	ND	ug/L	1.0	0.040	1	05/27/24 15:09	05/29/24 17:54	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/27/24 15:09	05/30/24 00:18	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/31/24 09:56	06/02/24 18:15	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

Sample: MW-46B **Lab ID: 50373785005** Collected: 05/21/24 15:10 Received: 05/22/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**459**	mg/L	10.0	10.0	1		05/29/24 20:38		
Alkalinity,Bicarbonate (CaCO3)	**459**	mg/L	10.0	10.0	1		05/29/24 20:38		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/29/24 20:38		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**561**	mg/L	10.0	10.0	1		05/28/24 11:26		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		06/05/24 13:07		H3
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/22/24 23:54	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.63**	mg/L	0.15	0.13	1	05/31/24 13:00	06/06/24 15:34		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.9**	mg/L	1.0	0.25	1		06/06/24 18:38		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

QC Batch: 792574
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373785001, 50373785002, 50373785005

METHOD BLANK: 3626957 Matrix: Water
Associated Lab Samples: 50373785001, 50373785002, 50373785005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/31/24 03:31	
Fluoride	mg/L	ND	0.10	0.017	05/31/24 03:31	
Sulfate	mg/L	ND	0.25	0.19	05/31/24 03:31	

LABORATORY CONTROL SAMPLE: 3626958

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	97	80-120	
Fluoride	mg/L	1	0.99	99	80-120	
Sulfate	mg/L	5	5.0	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3626959 3626960

Parameter	Units	50373774013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	42.9	25	25	68.4	68.0	102	100	80-120	1	15	
Fluoride	mg/L	0.11	1	1	1.1	1.1	98	100	80-120	1	15	
Sulfate	mg/L	441	50	50	493	491	104	100	80-120	0	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3626961 3626962

Parameter	Units	50373785002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	5.7	2.5	2.5	8.2	8.2	98	96	80-120	0	15	
Fluoride	mg/L	0.13	1	1	1.1	1.1	101	101	80-120	0	15	
Sulfate	mg/L	196	50	50	242	242	93	93	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

QC Batch: 792845
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373785001, 50373785002, 50373785005

METHOD BLANK: 3628013 Matrix: Water
Associated Lab Samples: 50373785001, 50373785002, 50373785005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	06/02/24 17:51	

LABORATORY CONTROL SAMPLE: 3628014

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3628015 3628016

Parameter	Units	50373785002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.6	4.8	93	96	75-125	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3628017 3628018

Parameter	Units	50374030002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.0	5.0	99	101	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

QC Batch: 791532
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373785001, 50373785002, 50373785005

METHOD BLANK: 3622044 Matrix: Water
Associated Lab Samples: 50373785001, 50373785002, 50373785005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	06/01/24 00:29	
Cadmium	ug/L	ND	2.0	0.60	06/01/24 00:29	
Calcium	ug/L	ND	1000	67.7	06/01/24 00:29	
Chromium	ug/L	ND	10.0	0.42	06/01/24 00:29	
Iron	ug/L	ND	100	30.0	06/01/24 00:29	
Lead	ug/L	ND	10.0	2.5	06/01/24 00:29	
Lithium	ug/L	ND	20.0	6.8	06/01/24 00:29	
Magnesium	ug/L	ND	1000	33.6	06/01/24 00:29	
Molybdenum	ug/L	ND	10.0	0.78	06/01/24 00:29	
Potassium	ug/L	ND	1000	97.8	06/01/24 00:29	
Sodium	ug/L	ND	1000	54.8	06/01/24 00:29	

LABORATORY CONTROL SAMPLE: 3622045

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	939	94	80-120	
Cadmium	ug/L	1000	944	94	80-120	
Calcium	ug/L	10000	9660	97	80-120	
Chromium	ug/L	1000	938	94	80-120	
Iron	ug/L	10000	9400	94	80-120	
Lead	ug/L	1000	942	94	80-120	
Lithium	ug/L	1000	955	96	80-120	
Magnesium	ug/L	10000	9510	95	80-120	
Molybdenum	ug/L	1000	1010	101	80-120	
Potassium	ug/L	10000	9540	95	80-120	
Sodium	ug/L	10000	9460	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3622046 3622047

Parameter	Units	50373785002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	ND	1000	1000	1040	1030	95	94	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	945	931	95	93	75-125	2	20	
Calcium	ug/L	133000	10000	10000	143000	139000	103	64	75-125	3	20	P6
Chromium	ug/L	ND	1000	1000	925	910	92	91	75-125	2	20	
Iron	ug/L	351	10000	10000	9550	9370	92	90	75-125	2	20	
Lead	ug/L	ND	1000	1000	916	903	92	90	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3622046 3622047

Parameter	Units	50373785002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	ND	1000	1000	976	951	97	95	75-125	3	20	
Magnesium	ug/L	44300	10000	10000	54000	52500	97	83	75-125	3	20	
Molybdenum	ug/L	ND	1000	1000	1010	991	101	99	75-125	2	20	
Potassium	ug/L	ND	10000	10000	9990	9700	96	94	75-125	3	20	
Sodium	ug/L	4520	10000	10000	14100	13700	96	92	75-125	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3622048 3622049

Parameter	Units	50373786001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	14500	1000	1000	15200	15500	71	103	75-125	2	20	P6
Cadmium	ug/L	ND	1000	1000	970	984	97	98	75-125	1	20	
Calcium	ug/L	517000	10000	10000	518000	521000	7	36	75-125	1	20	P6
Chromium	ug/L	ND	1000	1000	929	945	93	95	75-125	2	20	
Iron	ug/L	11200	10000	10000	20400	20600	91	94	75-125	1	20	
Lead	ug/L	ND	1000	1000	904	920	90	92	75-125	2	20	
Lithium	ug/L	ND	1000	1000	988	993	98	99	75-125	0	20	
Magnesium	ug/L	91100	10000	10000	99300	101000	82	96	75-125	1	20	
Molybdenum	ug/L	35.4	1000	1000	1060	1070	102	104	75-125	1	20	
Potassium	ug/L	2740	10000	10000	12500	12500	98	98	75-125	0	20	
Sodium	ug/L	19100	10000	10000	28400	28600	93	95	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

QC Batch: 793070
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373785001, 50373785002, 50373785005

METHOD BLANK: 3628855 Matrix: Water
Associated Lab Samples: 50373785001, 50373785002, 50373785005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	06/03/24 14:34	
Lithium, Dissolved	ug/L	ND	20.0	6.8	06/03/24 14:34	
Magnesium, Dissolved	ug/L	ND	1000	33.6	06/03/24 14:34	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	06/03/24 14:34	
Potassium, Dissolved	ug/L	ND	1000	97.8	06/03/24 14:34	

LABORATORY CONTROL SAMPLE: 3628856

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	891	89	80-120	
Lithium, Dissolved	ug/L	1000	935	94	80-120	
Magnesium, Dissolved	ug/L	10000	9090	91	80-120	
Molybdenum, Dissolved	ug/L	1000	931	93	80-120	
Potassium, Dissolved	ug/L	10000	9040	90	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3628857 3628858

Parameter	Units	50373785002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	ND	1000	1000	1020	990	93	90	75-125	3	20	
Lithium, Dissolved	ug/L	ND	1000	1000	981	936	98	93	75-125	5	20	
Magnesium, Dissolved	ug/L	45900	10000	10000	55500	53900	96	80	75-125	3	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	966	929	97	93	75-125	4	20	
Potassium, Dissolved	ug/L	ND	10000	10000	9720	9310	95	91	75-125	4	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3628859 3628860

Parameter	Units	50373786001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	14700	1000	1000	15100	15700	37	100	75-125	4	20	P6
Lithium, Dissolved	ug/L	ND	1000	1000	930	951	92	94	75-125	2	20	
Magnesium, Dissolved	ug/L	93600	10000	10000	97900	102000	44	83	75-125	4	20	P6
Molybdenum, Dissolved	ug/L	34.5	1000	1000	928	959	89	92	75-125	3	20	
Potassium, Dissolved	ug/L	2680	10000	10000	11800	12000	91	93	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

QC Batch: 792081
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373785001, 50373785002, 50373785005

METHOD BLANK: 3624972 Matrix: Water
Associated Lab Samples: 50373785001, 50373785002, 50373785005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.49	05/28/24 18:22	
Arsenic	ug/L	ND	1.0	0.075	05/28/24 18:22	
Barium	ug/L	ND	1.0	0.077	05/28/24 18:22	
Beryllium	ug/L	ND	0.20	0.035	05/28/24 18:22	
Cobalt	ug/L	ND	1.0	0.046	05/28/24 18:22	
Manganese	ug/L	ND	1.0	0.17	05/28/24 18:22	
Selenium	ug/L	ND	1.0	0.20	05/28/24 18:22	
Thallium	ug/L	ND	1.0	0.040	05/28/24 18:22	

LABORATORY CONTROL SAMPLE: 3624973

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	41.0	103	80-120	
Arsenic	ug/L	40	38.5	96	80-120	
Barium	ug/L	40	38.6	97	80-120	
Beryllium	ug/L	40	38.7	97	80-120	
Cobalt	ug/L	40	40.3	101	80-120	
Manganese	ug/L	40	40.5	101	80-120	
Selenium	ug/L	40	38.8	97	80-120	
Thallium	ug/L	40	40.9	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3624974 3624975

Parameter	Units	50373785002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	41.4	41.9	103	105	75-125	1	20	
Arsenic	ug/L	ND	40	40	38.2	38.2	94	94	75-125	0	20	
Barium	ug/L	69.9	40	40	108	109	95	98	75-125	1	20	
Beryllium	ug/L	ND	40	40	38.3	38.4	96	96	75-125	0	20	
Cobalt	ug/L	ND	40	40	38.4	38.9	95	96	75-125	1	20	
Manganese	ug/L	257	40	40	296	299	99	105	75-125	1	20	
Selenium	ug/L	ND	40	40	38.7	38.3	97	96	75-125	1	20	
Thallium	ug/L	ND	40	40	41.0	41.5	102	104	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

QC Batch: 792083
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373785001, 50373785002, 50373785005

METHOD BLANK: 3624983 Matrix: Water
Associated Lab Samples: 50373785001, 50373785002, 50373785005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.3	05/29/24 23:01	

LABORATORY CONTROL SAMPLE: 3624984

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	398	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3624985 3624986

Parameter	Units	50373785002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	407	401	101	99	75-125	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3624987 3624988

Parameter	Units	50373786001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	382	390	95	97	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

QC Batch: 792666
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373785001, 50373785002, 50373785005

METHOD BLANK: 3627391 Matrix: Water
Associated Lab Samples: 50373785001, 50373785002, 50373785005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/29/24 20:38	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	05/29/24 20:38	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	05/29/24 20:38	

LABORATORY CONTROL SAMPLE: 3627392

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.7	105	90-110	

SAMPLE DUPLICATE: 3627393

Parameter	Units	50373769001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	242	247	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	242	247	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3627394

Parameter	Units	50373785002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	333	340	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	333	340	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

QC Batch: 791851
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373785002

METHOD BLANK: 3623569 Matrix: Water
Associated Lab Samples: 50373785002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/24/24 12:33	

LABORATORY CONTROL SAMPLE: 3623570

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	291	97	80-120	

SAMPLE DUPLICATE: 3623571

Parameter	Units	50373774013 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	790	798	1	10	

SAMPLE DUPLICATE: 3623572

Parameter	Units	50373785002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	589	569	3	10	

SAMPLE DUPLICATE: 3623573

Parameter	Units	50373786001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2280	2340	2	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

QC Batch: 792206
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373785001, 50373785005

METHOD BLANK: 3625833 Matrix: Water
Associated Lab Samples: 50373785001, 50373785005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/28/24 11:21	

LABORATORY CONTROL SAMPLE: 3625834

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	290	97	80-120	

SAMPLE DUPLICATE: 3625835

Parameter	Units	50373774003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	302	309	2	10	

SAMPLE DUPLICATE: 3625836

Parameter	Units	50373799001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	4610	4700	2	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

QC Batch: 793901
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373785001, 50373785002, 50373785005

SAMPLE DUPLICATE: 3632345

Parameter	Units	50373774013 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.2	7.3	1	2	H3

SAMPLE DUPLICATE: 3632346

Parameter	Units	50373785002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.4	7.4	0	2	H3

SAMPLE DUPLICATE: 3632347

Parameter	Units	50373786001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.1	0	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

QC Batch: 791520
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373785001, 50373785002

METHOD BLANK: 3621887 Matrix: Water
Associated Lab Samples: 50373785001, 50373785002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/22/24 22:44	

LABORATORY CONTROL SAMPLE: 3621888

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3621889 3621890

Parameter	Units	50373774013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	0.97	1	1	2.0	2.0	104	103	90-110	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3621891 3621892

Parameter	Units	50373785002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.0	1.0	101	102	90-110	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

QC Batch: 791521
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373785005

METHOD BLANK: 3621894 Matrix: Water
Associated Lab Samples: 50373785005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/22/24 23:32	

LABORATORY CONTROL SAMPLE: 3621895

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3621896 3621897

Parameter	Units	50373770003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.0	1.0	102	102	90-110	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

QC Batch: 793005
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373785001, 50373785002, 50373785005

METHOD BLANK: 3628638 Matrix: Water
Associated Lab Samples: 50373785001, 50373785002, 50373785005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	06/06/24 15:28	

LABORATORY CONTROL SAMPLE: 3628639

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3628640 3628641

Parameter	Units	50373785002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.5	1.5				1		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3628642 3628643

Parameter	Units	50373786001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	1.3			1.7	1.7				3		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

QC Batch: 794194
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373785001, 50373785002, 50373785005

METHOD BLANK: 3633531 Matrix: Water
Associated Lab Samples: 50373785001, 50373785002, 50373785005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	06/06/24 15:05	

LABORATORY CONTROL SAMPLE: 3633532

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.6	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3633533 3633534

Parameter	Units	50373785002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.4	10	10	10.9	10.5	94	90	80-120	4	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3633535 3633536

Parameter	Units	50373786001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.5	10	10	10.8	10.6	92	90	80-120	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

Sample: MW-45I **Lab ID: 50373785001** Collected: 05/21/24 12:10 Received: 05/22/24 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.198 ± 0.502 (0.931) C:NA T:88%**	pCi/L	06/14/24 14:50	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.467 ± 0.340 (0.651) C:78% T:90%**	pCi/L	06/12/24 14:25	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.665 ± 0.842 (1.58)**	pCi/L	06/14/24 17:13	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

Sample: MW-45B **Lab ID: 50373785002** Collected: 05/21/24 13:30 Received: 05/22/24 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.000 ± 0.342 (0.711) C:NA T:84%**	pCi/L	06/14/24 14:50	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.419 ± 0.344 (0.683) C:83% T:87%**	pCi/L	06/12/24 14:25	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.419 ± 0.686 (1.39)**	pCi/L	06/14/24 17:13	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

Sample: MW-45B MS **Lab ID: 50373785003** Collected: 05/21/24 13:30 Received: 05/22/24 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**103.12 %REC ± NA (NA) C:NA T:NA**	pCi/L	06/14/24 14:50	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**82.20 %REC ± NA (NA) C:NA T:NA**	pCi/L	06/12/24 14:25	15262-20-1	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

Sample: MW-45B MSD **Lab ID: 50373785004** Collected: 05/21/24 13:30 Received: 05/22/24 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**84.10 %REC 20.32RPD ± NA (NA) C:NA T:NA**	pCi/L	06/14/24 14:50	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**90.76 %REC 9.90RPD ± NA (NA) C:NA T:NA**	pCi/L	06/12/24 14:25	15262-20-1	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

Sample: MW-46B **Lab ID: 50373785005** Collected: 05/21/24 15:10 Received: 05/22/24 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.612 ± 0.799 (1.34) C:NA T:89%**	pCi/L	06/14/24 14:50	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.453 ± 0.343 (0.667) C:82% T:83%**	pCi/L	06/12/24 14:25	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.07 ± 1.14 (2.01)**	pCi/L	06/14/24 17:13	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

QC Batch: 671179
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50373785001, 50373785002, 50373785003, 50373785004, 50373785005

METHOD BLANK: 3268457 Matrix: Water
Associated Lab Samples: 50373785001, 50373785002, 50373785003, 50373785004, 50373785005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.139 ± 0.240 (0.429) C:NA T:93%	pCi/L	06/14/24 14:50	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

QC Batch: 671180
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50373785001, 50373785002, 50373785003, 50373785004, 50373785005

METHOD BLANK: 3268458 Matrix: Water
Associated Lab Samples: 50373785001, 50373785002, 50373785003, 50373785004, 50373785005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.451 ± 0.338 (0.656) C:82% T:86%	pCi/L	06/12/24 14:24	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50373785001	**MW-45I**	EPA 9056	792574		
50373785002	**MW-45B**	EPA 9056	792574		
50373785005	**MW-46B**	EPA 9056	792574		
50373785001	**MW-45I**	EPA 3010	791532	EPA 6010	793197
50373785002	**MW-45B**	EPA 3010	791532	EPA 6010	793197
50373785005	**MW-46B**	EPA 3010	791532	EPA 6010	793197
50373785001	**MW-45I**	EPA 3010	793070	EPA 6010	793396
50373785002	**MW-45B**	EPA 3010	793070	EPA 6010	793396
50373785005	**MW-46B**	EPA 3010	793070	EPA 6010	793396
50373785001	**MW-45I**	EPA 200.2	792081	EPA 6020	792310
50373785002	**MW-45B**	EPA 200.2	792081	EPA 6020	792310
50373785005	**MW-46B**	EPA 200.2	792081	EPA 6020	792310
50373785001	**MW-45I**	EPA 200.2	792083	EPA 6020	792313
50373785002	**MW-45B**	EPA 200.2	792083	EPA 6020	792313
50373785005	**MW-46B**	EPA 200.2	792083	EPA 6020	792313
50373785001	**MW-45I**	EPA 7470	792845	EPA 7470	793264
50373785002	**MW-45B**	EPA 7470	792845	EPA 7470	793264
50373785005	**MW-46B**	EPA 7470	792845	EPA 7470	793264
50373785001	**MW-45I**	EPA 903.1	671179		
50373785002	**MW-45B**	EPA 903.1	671179		
50373785003	**MW-45B MS**	EPA 903.1	671179		
50373785004	**MW-45B MSD**	EPA 903.1	671179		
50373785005	**MW-46B**	EPA 903.1	671179		
50373785001	**MW-45I**	EPA 904.0	671180		
50373785002	**MW-45B**	EPA 904.0	671180		
50373785003	**MW-45B MS**	EPA 904.0	671180		
50373785004	**MW-45B MSD**	EPA 904.0	671180		
50373785005	**MW-46B**	EPA 904.0	671180		
50373785001	**MW-45I**	Total Radium Calculation	676066		
50373785002	**MW-45B**	Total Radium Calculation	676066		
50373785005	**MW-46B**	Total Radium Calculation	676066		
50373785001	**MW-45I**	SM 2320B	792666		
50373785002	**MW-45B**	SM 2320B	792666		
50373785005	**MW-46B**	SM 2320B	792666		
50373785001	**MW-45I**	SM 2540C	792206		
50373785002	**MW-45B**	SM 2540C	791851		
50373785005	**MW-46B**	SM 2540C	792206		
50373785001	**MW-45I**	SM 4500-H+B	793901		
50373785002	**MW-45B**	SM 4500-H+B	793901		
50373785005	**MW-46B**	SM 4500-H+B	793901		
50373785001	**MW-45I**	EPA 353.2	791520		
50373785002	**MW-45B**	EPA 353.2	791520		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373785

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50373785005	**MW-46B**	EPA 353.2	791521		
50373785001	**MW-45I**	EPA 365.1	793005	EPA 365.1	794260
50373785002	**MW-45B**	EPA 365.1	793005	EPA 365.1	794260
50373785005	**MW-46B**	EPA 365.1	793005	EPA 365.1	794260
50373785001	**MW-45I**	SM 5310C	794194		
50373785002	**MW-45B**	SM 5310C	794194		
50373785005	**MW-46B**	SM 5310C	794194		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analyt

The Chain-of-Custody is a LEGAL DOCUMENT

WO# : 50373785

50373785

Page: 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P4 May 2024	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:	PWR4	Pace Profile #:	10498/60

Regulatory Agency	State / Location
	IN

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO3 Wet	(Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity,pH	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum	Residual Chlorine (Y/N)	
	Requested Analysis Filtered (Y/N)																	Y/N				Y			Y		
1	MW-45I	WT	G	5/21/24	12:10				10	X	X	X		X					X	X	X	X	X	X	X	X		001
2	MW-45B	WT	G	"	13:30				10	X	X	X		X					"	"	"	"	"	"	"	"		002, 003, 004
3	MW-46B	WT	G	"	15:10				10	X	X	X		X					"	"	"	"	"	"	"	"		005
4	MS	WT	G	"	13:30				10	X	X	X		X					"	"	"	"	"	"	"	"		
5	MSD	WT	G	"	13:30				10	X	X	X		X					"	"	"	"	"	"	"	"		
6																											
7																											
8																											
9																											
10																											
11																											
12																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Metals: 6010 (B, Cd, Cr, Fe, Pb, Mo, Ca, Mg, Na, K, Li) (11)	Mohammed Bazlamit			Fedex						
020 (Be, Mn, Co, As, Se, Sb, Ba, Tl) (8), 7470 (Hg)	Fedex	5/22/24	930	Matos	5/22/24	930	3.3	Y	Y	Y
' Dissolved FF 6010 (B, Mo, Mg, K, Li) (5) FF 6020 (Al) (1)										
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Mohammed Bazlamit					
SIGNATURE of SAMPLER:		DATE Signed: 5/21/24				

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 5/22/24 1120 mw

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F (G) H
4. **Cooler Temperature(s):** 3.5/3.3 | 1.3/1.1 | | | **(Initial/Corrected)** **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**

5. **Packing Material:** ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **Was the PM notified of out of temp cooler?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C
8. **EZ Bottle Order?** ☐ Yes ☑ No
   If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** Circle: (HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis: NO3	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 1145			Present	Absent	N/A ✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			
			Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1													1			2	1	2	1	1	1		1					WT	✓	✓		✓
2													3			6	3	4	3	3	3		3									
3													1			2	1	2	1	1	1		1									
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP3R	250mL Unpres. FF SO4/OH buffer
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

August 01, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 P4R3
Pace Project No.: 50373786

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 22, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373786

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373786

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50373786001	**MW-25I**	Water	05/21/24 09:45	05/22/24 09:30
50373786002	**MW-25I MS**	Water	05/21/24 09:45	05/22/24 09:30
50373786003	**MW-25I MSD**	Water	05/21/24 09:45	05/22/24 09:30

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373786

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50373786001	**MW-25I**	EPA 9056	KBB	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	ELK	5	PASI-I
		EPA 6020	CAW	8	PASI-I
		EPA 6020	CAW	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	DMC	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	ATS	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50373786002	**MW-25I MS**	EPA 903.1	DMC	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
50373786003	**MW-25I MSD**	EPA 903.1	DMC	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373786

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50373786001	**MW-25I**					
EPA 9056	Chloride	54.8	mg/L	2.5	06/01/24 02:03	
EPA 9056	Sulfate	1330	mg/L	25.0	06/01/24 02:20	
EPA 6010	Boron	14500	ug/L	100	06/01/24 00:56	
EPA 6010	Calcium	517000	ug/L	5000	06/01/24 01:32	
EPA 6010	Iron	11200	ug/L	100	06/01/24 00:56	
EPA 6010	Magnesium	91100	ug/L	1000	06/01/24 00:56	
EPA 6010	Molybdenum	35.4	ug/L	10.0	06/01/24 00:56	
EPA 6010	Potassium	2740	ug/L	1000	06/01/24 00:56	
EPA 6010	Sodium	19100	ug/L	1000	06/01/24 00:56	
EPA 6010	Boron, Dissolved	14700	ug/L	100	06/03/24 14:50	
EPA 6010	Magnesium, Dissolved	93600	ug/L	1000	06/03/24 14:50	
EPA 6010	Molybdenum, Dissolved	34.5	ug/L	10.0	06/03/24 14:50	
EPA 6010	Potassium, Dissolved	2680	ug/L	1000	06/03/24 14:50	
EPA 6020	Barium	20.5	ug/L	1.0	05/29/24 18:35	
EPA 6020	Manganese	1550	ug/L	10.0	05/29/24 18:09	
EPA 903.1	Radium-226	0.124 ± 0.619 (1.17) C:NA T:81%	pCi/L		06/13/24 15:37	
EPA 904.0	Radium-228	0.570 ± 0.395 (0.774) C:83% T:89%	pCi/L		06/11/24 11:52	
Total Radium Calculation	Total Radium	0.694 ± 1.01 (1.94)	pCi/L		06/13/24 16:54	
SM 2320B	Alkalinity, Total as CaCO3	149	mg/L	10.0	05/29/24 21:34	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	149	mg/L	10.0	05/29/24 21:34	
SM 2540C	Total Dissolved Solids	2280	mg/L	20.0	05/24/24 12:34	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	06/05/24 13:09	H3
EPA 365.1	Phosphate as P04	1.3	mg/L	0.15	06/06/24 15:34	
SM 5310C	Dissolved Organic Carbon	1.5	mg/L	1.0	06/06/24 18:48	
50373786002	**MW-25I MS**					
EPA 903.1	Radium-226	91.07 %REC ± NA (NA) C:NA T:NA	pCi/L		06/13/24 15:37	
EPA 904.0	Radium-228	114.76 %REC ± NA (NA) C:NA T:NA	pCi/L		06/11/24 11:52	
50373786003	**MW-25I MSD**					
EPA 903.1	Radium-226	103.75 %REC 13.01RPD ± NA (NA) C:NA T:NA	pCi/L		06/13/24 15:49	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373786

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50373786003	**MW-25I MSD**					
EPA 904.0	Radium-228	103.63 %REC 10.19RPD ± NA (NA) C:NA T:NA	pCi/L		06/11/24 11:52	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373786

Sample: MW-25I **Lab ID: 50373786001** Collected: 05/21/24 09:45 Received: 05/22/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**54.8**	mg/L	2.5	0.67	10		06/01/24 02:03	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		06/01/24 01:46	16984-48-8	
Sulfate	**1330**	mg/L	25.0	19.0	100		06/01/24 02:20	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**14500**	ug/L	100	6.2	1	05/27/24 20:38	06/01/24 00:56	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/27/24 20:38	06/01/24 00:56	7440-43-9	
Calcium	**517000**	ug/L	5000	338	5	05/27/24 20:38	06/01/24 01:32	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/27/24 20:38	06/01/24 00:56	7440-47-3	
Iron	**11200**	ug/L	100	30.0	1	05/27/24 20:38	06/01/24 00:56	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/27/24 20:38	06/01/24 00:56	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/27/24 20:38	06/01/24 00:56	7439-93-2	
Magnesium	**91100**	ug/L	1000	33.6	1	05/27/24 20:38	06/01/24 00:56	7439-95-4	
Molybdenum	**35.4**	ug/L	10.0	0.78	1	05/27/24 20:38	06/01/24 00:56	7439-98-7	
Potassium	**2740**	ug/L	1000	97.8	1	05/27/24 20:38	06/01/24 00:56	7440-09-7	
Sodium	**19100**	ug/L	1000	54.8	1	05/27/24 20:38	06/01/24 00:56	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**14700**	ug/L	100	6.2	1	06/02/24 20:40	06/03/24 14:50	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	06/02/24 20:40	06/03/24 14:50	7439-93-2	
Magnesium, Dissolved	**93600**	ug/L	1000	33.6	1	06/02/24 20:40	06/03/24 14:50	7439-95-4	
Molybdenum, Dissolved	**34.5**	ug/L	10.0	0.78	1	06/02/24 20:40	06/03/24 14:50	7439-98-7	
Potassium, Dissolved	**2680**	ug/L	1000	97.8	1	06/02/24 20:40	06/03/24 14:50	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.49	1	05/27/24 15:09	05/29/24 18:35	7440-36-0	
Arsenic	ND	ug/L	1.0	0.075	1	05/27/24 15:09	05/29/24 18:35	7440-38-2	
Barium	**20.5**	ug/L	1.0	0.077	1	05/27/24 15:09	05/29/24 18:35	7440-39-3	
Beryllium	ND	ug/L	0.20	0.035	1	05/27/24 15:09	05/29/24 18:35	7440-41-7	
Cobalt	ND	ug/L	1.0	0.046	1	05/27/24 15:09	05/29/24 18:35	7440-48-4	
Manganese	**1550**	ug/L	10.0	1.7	10	05/27/24 15:09	05/29/24 18:09	7439-96-5	
Selenium	ND	ug/L	1.0	0.20	1	05/27/24 15:09	05/29/24 18:35	7782-49-2	
Thallium	ND	ug/L	1.0	0.040	1	05/27/24 15:09	05/29/24 18:35	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.3	1	05/27/24 15:09	05/30/24 00:22	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/31/24 09:59	06/02/24 20:00	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373786

Sample: MW-25I **Lab ID: 50373786001** Collected: 05/21/24 09:45 Received: 05/22/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**149**	mg/L	10.0	10.0	1		05/29/24 21:34		
Alkalinity,Bicarbonate (CaCO3)	**149**	mg/L	10.0	10.0	1		05/29/24 21:34		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		05/29/24 21:34		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2280**	mg/L	20.0	20.0	1		05/24/24 12:34		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		06/05/24 13:09		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/26/24 10:21	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/22/24 22:23	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**1.3**	mg/L	0.15	0.13	1	05/31/24 13:00	06/06/24 15:34		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.5**	mg/L	1.0	0.25	1		06/06/24 18:48		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373786

QC Batch: 792573
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50373786001

METHOD BLANK: 3626949 Matrix: Water
Associated Lab Samples: 50373786001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	06/01/24 16:33	
Fluoride	mg/L	ND	0.10	0.017	06/01/24 16:33	
Sulfate	mg/L	ND	0.25	0.19	06/01/24 16:33	

LABORATORY CONTROL SAMPLE: 3626950

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.5	99	80-120	
Fluoride	mg/L	1	1.0	103	80-120	
Sulfate	mg/L	5	4.9	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3626951 3626952

Parameter	Units	50373786001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	54.8	25	25	79.8	79.7	100	100	80-120	0	15	
Fluoride	mg/L	ND	1	1	1.1	1.1	102	101	80-120	1	15	
Sulfate	mg/L	1330	500	500	1990	1960	132	127	80-120	1	15	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373786

QC Batch: 792955
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373786001

METHOD BLANK: 3628508 Matrix: Water
Associated Lab Samples: 50373786001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	06/02/24 19:01	

LABORATORY CONTROL SAMPLE: 3628509

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.8	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3628510 3628511

Parameter	Units	50373771002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.8	4.7	96	94	75-125	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3628512 3628513

Parameter	Units	50373786001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.7	4.6	94	92	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373786

QC Batch: 791532
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50373786001

METHOD BLANK: 3622044 Matrix: Water
Associated Lab Samples: 50373786001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	06/01/24 00:29	
Cadmium	ug/L	ND	2.0	0.60	06/01/24 00:29	
Calcium	ug/L	ND	1000	67.7	06/01/24 00:29	
Chromium	ug/L	ND	10.0	0.42	06/01/24 00:29	
Iron	ug/L	ND	100	30.0	06/01/24 00:29	
Lead	ug/L	ND	10.0	2.5	06/01/24 00:29	
Lithium	ug/L	ND	20.0	6.8	06/01/24 00:29	
Magnesium	ug/L	ND	1000	33.6	06/01/24 00:29	
Molybdenum	ug/L	ND	10.0	0.78	06/01/24 00:29	
Potassium	ug/L	ND	1000	97.8	06/01/24 00:29	
Sodium	ug/L	ND	1000	54.8	06/01/24 00:29	

LABORATORY CONTROL SAMPLE: 3622045

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	939	94	80-120	
Cadmium	ug/L	1000	944	94	80-120	
Calcium	ug/L	10000	9660	97	80-120	
Chromium	ug/L	1000	938	94	80-120	
Iron	ug/L	10000	9400	94	80-120	
Lead	ug/L	1000	942	94	80-120	
Lithium	ug/L	1000	955	96	80-120	
Magnesium	ug/L	10000	9510	95	80-120	
Molybdenum	ug/L	1000	1010	101	80-120	
Potassium	ug/L	10000	9540	95	80-120	
Sodium	ug/L	10000	9460	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3622046 3622047

Parameter	Units	50373785002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	ND	1000	1000	1040	1030	95	94	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	945	931	95	93	75-125	2	20	
Calcium	ug/L	133000	10000	10000	143000	139000	103	64	75-125	3	20	P6
Chromium	ug/L	ND	1000	1000	925	910	92	91	75-125	2	20	
Iron	ug/L	351	10000	10000	9550	9370	92	90	75-125	2	20	
Lead	ug/L	ND	1000	1000	916	903	92	90	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373786

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3622046 3622047

Parameter	Units	50373785002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	ND	1000	1000	976	951	97	95	75-125	3	20	
Magnesium	ug/L	44300	10000	10000	54000	52500	97	83	75-125	3	20	
Molybdenum	ug/L	ND	1000	1000	1010	991	101	99	75-125	2	20	
Potassium	ug/L	ND	10000	10000	9990	9700	96	94	75-125	3	20	
Sodium	ug/L	4520	10000	10000	14100	13700	96	92	75-125	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3622048 3622049

Parameter	Units	50373786001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	14500	1000	1000	15200	15500	71	103	75-125	2	20	P6
Cadmium	ug/L	ND	1000	1000	970	984	97	98	75-125	1	20	
Calcium	ug/L	517000	10000	10000	518000	521000	7	36	75-125	1	20	P6
Chromium	ug/L	ND	1000	1000	929	945	93	95	75-125	2	20	
Iron	ug/L	11200	10000	10000	20400	20600	91	94	75-125	1	20	
Lead	ug/L	ND	1000	1000	904	920	90	92	75-125	2	20	
Lithium	ug/L	ND	1000	1000	988	993	98	99	75-125	0	20	
Magnesium	ug/L	91100	10000	10000	99300	101000	82	96	75-125	1	20	
Molybdenum	ug/L	35.4	1000	1000	1060	1070	102	104	75-125	1	20	
Potassium	ug/L	2740	10000	10000	12500	12500	98	98	75-125	0	20	
Sodium	ug/L	19100	10000	10000	28400	28600	93	95	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373786

QC Batch: 793070
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373786001

METHOD BLANK: 3628855 Matrix: Water
Associated Lab Samples: 50373786001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	06/03/24 14:34	
Lithium, Dissolved	ug/L	ND	20.0	6.8	06/03/24 14:34	
Magnesium, Dissolved	ug/L	ND	1000	33.6	06/03/24 14:34	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	06/03/24 14:34	
Potassium, Dissolved	ug/L	ND	1000	97.8	06/03/24 14:34	

LABORATORY CONTROL SAMPLE: 3628856

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	891	89	80-120	
Lithium, Dissolved	ug/L	1000	935	94	80-120	
Magnesium, Dissolved	ug/L	10000	9090	91	80-120	
Molybdenum, Dissolved	ug/L	1000	931	93	80-120	
Potassium, Dissolved	ug/L	10000	9040	90	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3628857 3628858

Parameter	Units	50373785002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	ND	1000	1000	1020	990	93	90	75-125	3	20	
Lithium, Dissolved	ug/L	ND	1000	1000	981	936	98	93	75-125	5	20	
Magnesium, Dissolved	ug/L	45900	10000	10000	55500	53900	96	80	75-125	3	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	966	929	97	93	75-125	4	20	
Potassium, Dissolved	ug/L	ND	10000	10000	9720	9310	95	91	75-125	4	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3628859 3628860

Parameter	Units	50373786001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	14700	1000	1000	15100	15700	37	100	75-125	4	20	P6
Lithium, Dissolved	ug/L	ND	1000	1000	930	951	92	94	75-125	2	20	
Magnesium, Dissolved	ug/L	93600	10000	10000	97900	102000	44	83	75-125	4	20	P6
Molybdenum, Dissolved	ug/L	34.5	1000	1000	928	959	89	92	75-125	3	20	
Potassium, Dissolved	ug/L	2680	10000	10000	11800	12000	91	93	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373786

QC Batch: 792082
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50373786001

METHOD BLANK: 3624976 Matrix: Water
Associated Lab Samples: 50373786001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.49	05/28/24 22:02	
Arsenic	ug/L	ND	1.0	0.075	05/28/24 22:02	
Barium	ug/L	ND	1.0	0.077	05/28/24 22:02	
Beryllium	ug/L	ND	0.20	0.035	05/28/24 22:02	
Cobalt	ug/L	ND	1.0	0.046	05/28/24 22:02	
Manganese	ug/L	ND	1.0	0.17	05/28/24 22:02	
Selenium	ug/L	ND	1.0	0.20	05/28/24 22:02	
Thallium	ug/L	ND	1.0	0.040	05/28/24 22:02	

LABORATORY CONTROL SAMPLE: 3624977

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	40.5	101	80-120	
Arsenic	ug/L	40	38.8	97	80-120	
Barium	ug/L	40	38.9	97	80-120	
Beryllium	ug/L	40	39.3	98	80-120	
Cobalt	ug/L	40	40.6	102	80-120	
Manganese	ug/L	40	40.7	102	80-120	
Selenium	ug/L	40	39.8	99	80-120	
Thallium	ug/L	40	40.4	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3624978 3624979

Parameter	Units	50373786001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	41.5	41.4	104	103	75-125	0	20	
Arsenic	ug/L	ND	40	40	38.4	38.4	95	95	75-125	0	20	
Barium	ug/L	20.5	40	40	60.3	58.7	99	96	75-125	3	20	
Beryllium	ug/L	ND	40	40	36.5	36.2	91	91	75-125	1	20	
Cobalt	ug/L	ND	40	40	38.5	38.8	95	96	75-125	1	20	
Manganese	ug/L	1550	40	40	1660	1600	270	127	75-125	3	20	P6
Selenium	ug/L	ND	40	40	42.3	41.5	105	104	75-125	2	20	
Thallium	ug/L	ND	40	40	42.2	42.0	105	105	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373786

QC Batch: 792083
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373786001

METHOD BLANK: 3624983 Matrix: Water
Associated Lab Samples: 50373786001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.3	05/29/24 23:01	

LABORATORY CONTROL SAMPLE: 3624984

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	398	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3624985 3624986

Parameter	Units	50373785002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	407	401	101	99	75-125	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3624987 3624988

Parameter	Units	50373786001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	382	390	95	97	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373786

QC Batch: 792667
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373786001

METHOD BLANK: 3627395 Matrix: Water
Associated Lab Samples: 50373786001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	05/29/24 21:34	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	05/29/24 21:34	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	05/29/24 21:34	

LABORATORY CONTROL SAMPLE: 3627396

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	54.2	108	90-110	

SAMPLE DUPLICATE: 3627397

Parameter	Units	50373786001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	149	151	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	149	151	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3627398

Parameter	Units	50373869007 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	436	445	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	436	445	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373786

QC Batch: 791851
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373786001

METHOD BLANK: 3623569 Matrix: Water
Associated Lab Samples: 50373786001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/24/24 12:33	

LABORATORY CONTROL SAMPLE: 3623570

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	291	97	80-120	

SAMPLE DUPLICATE: 3623571

Parameter	Units	50373774013 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	790	798	1	10	

SAMPLE DUPLICATE: 3623572

Parameter	Units	50373785002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	589	569	3	10	

SAMPLE DUPLICATE: 3623573

Parameter	Units	50373786001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2280	2340	2	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373786

QC Batch: 793901
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50373786001

SAMPLE DUPLICATE: 3632345

Parameter	Units	50373774013 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.2	7.3	1	2	H3

SAMPLE DUPLICATE: 3632346

Parameter	Units	50373785002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.4	7.4	0	2	H3

SAMPLE DUPLICATE: 3632347

Parameter	Units	50373786001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.1	0	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373786

QC Batch: 792141
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373786001

METHOD BLANK: 3625642 Matrix: Water
Associated Lab Samples: 50373786001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/26/24 10:21	

LABORATORY CONTROL SAMPLE: 3625643

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.50	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3625644 3625645

Parameter	Units	50373786001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.13	0.13	25	24	90-110	3	20	M3

MATRIX SPIKE SAMPLE: 3625646

Parameter	Units	50373910004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.36	70	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373786

QC Batch: 791519
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373786001

METHOD BLANK: 3621881 Matrix: Water
Associated Lab Samples: 50373786001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/22/24 21:48	

LABORATORY CONTROL SAMPLE: 3621882

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3621883 3621884

Parameter	Units	50373773001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	0.87	0.87	86	86	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3621885 3621886

Parameter	Units	50373786001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	0.89	0.89	89	88	90-110	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373786

QC Batch: 793005
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373786001

METHOD BLANK: 3628638 Matrix: Water
Associated Lab Samples: 50373786001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	06/06/24 15:28	

LABORATORY CONTROL SAMPLE: 3628639

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3628640 3628641

Parameter	Units	50373785002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	ND			1.5	1.5				1		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3628642 3628643

Parameter	Units	50373786001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	1.3			1.7	1.7				3		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373786

QC Batch: 794194
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373786001

METHOD BLANK: 3633531 Matrix: Water
Associated Lab Samples: 50373786001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	06/06/24 15:05	

LABORATORY CONTROL SAMPLE: 3633532

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.6	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3633533 3633534

Parameter	Units	50373785002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.4	10	10	10.9	10.5	94	90	80-120	4	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3633535 3633536

Parameter	Units	50373786001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.5	10	10	10.8	10.6	92	90	80-120	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373786

Sample: MW-25I **Lab ID: 50373786001** Collected: 05/21/24 09:45 Received: 05/22/24 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.124 ± 0.619 (1.17) C:NA T:81%**	pCi/L	06/13/24 15:37	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.570 ± 0.395 (0.774) C:83% T:89%**	pCi/L	06/11/24 11:52	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.694 ± 1.01 (1.94)**	pCi/L	06/13/24 16:54	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373786

Sample: MW-25I MS **Lab ID: 50373786002** Collected: 05/21/24 09:45 Received: 05/22/24 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**91.07 %REC ± NA (NA) C:NA T:NA**	pCi/L	06/13/24 15:37	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**114.76 %REC ± NA (NA) C:NA T:NA**	pCi/L	06/11/24 11:52	15262-20-1	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373786

Sample: MW-25I MSD **Lab ID: 50373786003** Collected: 05/21/24 09:45 Received: 05/22/24 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**103.75 %REC 13.01RPD ± NA (NA) C:NA T:NA**	pCi/L	06/13/24 15:49	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**103.63 %REC 10.19RPD ± NA (NA) C:NA T:NA**	pCi/L	06/11/24 11:52	15262-20-1	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373786

QC Batch: 671157
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50373786001, 50373786002, 50373786003

METHOD BLANK: 3268402 Matrix: Water
Associated Lab Samples: 50373786001, 50373786002, 50373786003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.0386 ± 0.333 (0.787) C:77% T:81%	pCi/L	06/11/24 11:49	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373786

QC Batch: 671155
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50373786001, 50373786002, 50373786003

METHOD BLANK: 3268393 Matrix: Water
Associated Lab Samples: 50373786001, 50373786002, 50373786003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.220 (0.493) C:NA T:89%	pCi/L	06/13/24 15:22	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373786

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R3
Pace Project No.: 50373786

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50373786001	**MW-25I**	EPA 9056	792573		
50373786001	**MW-25I**	EPA 3010	791532	EPA 6010	793197
50373786001	**MW-25I**	EPA 3010	793070	EPA 6010	793396
50373786001	**MW-25I**	EPA 200.2	792082	EPA 6020	792311
50373786001	**MW-25I**	EPA 200.2	792083	EPA 6020	792313
50373786001	**MW-25I**	EPA 7470	792955	EPA 7470	793265
50373786001	**MW-25I**	EPA 903.1	671155		
50373786002	**MW-25I MS**	EPA 903.1	671155		
50373786003	**MW-25I MSD**	EPA 903.1	671155		
50373786001	**MW-25I**	EPA 904.0	671157		
50373786002	**MW-25I MS**	EPA 904.0	671157		
50373786003	**MW-25I MSD**	EPA 904.0	671157		
50373786001	**MW-25I**	Total Radium Calculation	675747		
50373786001	**MW-25I**	SM 2320B	792667		
50373786001	**MW-25I**	SM 2540C	791851		
50373786001	**MW-25I**	SM 4500-H+B	793901		
50373786001	**MW-25I**	SM 4500-S2-D	792141		
50373786001	**MW-25I**	EPA 353.2	791519		
50373786001	**MW-25I**	EPA 365.1	793005	EPA 365.1	794260
50373786001	**MW-25I**	SM 5310C	794194		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / A

The Chain-of-Custody is a LEGAL DO

WO# : 50373786

50373786

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:			Page: Of
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam		
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis		
	Indianapolis, IN 46256			Address:		Regulatory Agency	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:			
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P4 May 2024	Pace Project Manager:	Will Statz	State / Location	
Requested Due Date:		Project #:	P4 R3	Pace Profile #:	10498/60	IN	

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO3 Wet	(Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity pH	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum		Residual Chlorine (Y/N)	
	MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																	Requested Analysis Filtered (Y/N)				Y			Y					
1	MW-25I	WT	G	5/21	9:45				10	3	2	4		1					✓	✓	✓	✓	✓	✓	✓	✓	✓			001
2	MS-4	↓	↓	↓	↓				↓	↓	↓	↓		↓					✓	✓	✓	✓	✓	✓	✓	✓	✓			002
3	MSD-4	↓	↓	↓	↓				↓	↓	↓	↓		↓					✓	✓	✓	✓	✓	✓	✓	✓	✓			003
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Metals: 6010 (B, Cd, Cr, Fe, Pb, Mo, Ca, Mg, Na, K, Li) (11)	Jacob Rager	5/21/24	2:26	Fedex	5/21/24					
020 (Be, Mn, Co, As, Se, Sb, Ba, Tl) (8), 7470 (Hg)	Fedex	5/22/24	930	MCLee	5/22/24	930	0.3	Y	Y	Y
Dissolved FF 6010 (B, Mo, Mg, K, Li) (5) FF 6020 (Al) (1)							1.2			
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Jacob Rager					
SIGNATURE of SAMPLER:		DATE Signed: 5-21-24				

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: RC 5-22-24 11:04

1. **Courier:** ☑ FED EX | UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT | OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H
4. **Cooler Temperature(s):** 0.3/0.3 | 1.2/1.2 | | |
   (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **Was the PM notified of out of temp cooler?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C
8. **EZ Bottle Order?** ☐ Yes ☑ No
   If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** Circle: ~~HNO3 (<2)~~ ~~H2SO4 (<2)~~ NaOH (>10) ~~NaOH/ZnAc (>9)~~ Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis: NO3	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 1200		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A ✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 **of** 2

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1													3			6	3	6	3	3	3		3					WT	✓	✓		✓
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP3R	250mL Unpres. FF SO4/OH buffer
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

COC PAGE 2 of 2

Sample Container Count

** Place a RED dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC									OTHER					Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
			MeOH (only)																											Red	Yellow	Green	Black
			SBS																													
			DI																													
COC Line Item	WGFU	WGKU BG1U	R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
1													1			2	1	2	1	1	1		1					WT	✓	✓		✓
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

July 24, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 23, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50373951001	**MW-46A**	Water	05/22/24 12:40	05/23/24 09:30
50373951002	**MW-46I**	Water	05/22/24 10:05	05/23/24 09:30
50373951003	**MW-47A**	Water	05/22/24 15:23	05/23/24 09:30
50373951004	**MW-47I**	Water	05/22/24 12:15	05/23/24 09:30
50373951005	**MW-47I MS**	Water	05/22/24 12:15	05/23/24 09:30
50373951006	**MW-47I MSD**	Water	05/22/24 12:15	05/23/24 09:30
50373951007	**MW-47B**	Water	05/22/24 15:05	05/23/24 09:30
50373951008	**DUP-9**	Water	05/22/24 08:00	05/23/24 09:30

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50373951001	**MW-46A**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	ELK	5	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	MTM	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50373951002	**MW-46I**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	ELK	5	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	MTM	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50373951003	**MW-47A**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	ELK	5	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	MTM	1	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50373951004	**MW-47I**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	ELK	5	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	MTM	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50373951005	**MW-47I MS**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
50373951006	**MW-47I MSD**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
50373951007	**MW-47B**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	ELK	5	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	MTM	1	PASI-I
		EPA 7470	EAE	1	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50373951008	**DUP-9**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	ELK	5	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	MTM	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	ZM	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50373951001	**MW-46A**					
EPA 9056	Chloride	8.5	mg/L	0.25	06/07/24 05:03	
EPA 9056	Sulfate	462	mg/L	2.5	06/07/24 05:20	
EPA 6010	Boron	1270	ug/L	100	05/31/24 23:17	
EPA 6010	Calcium	196000	ug/L	1000	05/31/24 23:17	
EPA 6010	Iron	10200	ug/L	100	05/31/24 23:17	
EPA 6010	Magnesium	59400	ug/L	1000	05/31/24 23:17	
EPA 6010	Sodium	9350	ug/L	1000	05/31/24 23:17	
EPA 6010	Boron, Dissolved	1260	ug/L	100	06/05/24 13:28	
EPA 6010	Magnesium, Dissolved	60100	ug/L	1000	06/05/24 13:28	
EPA 6020	Arsenic	3.1	ug/L	1.0	05/31/24 07:24	
EPA 6020	Barium	26.4	ug/L	1.0	05/31/24 07:24	
EPA 6020	Manganese	2380	ug/L	20.0	05/31/24 05:49	
EPA 903.1	Radium-226	-0.348 ± 0.809 (1.64) C:NA T:86%	pCi/L		06/18/24 15:14	
EPA 904.0	Radium-228	0.0749 ± 0.320 (0.729) C:85% T:83%	pCi/L		06/13/24 11:34	
Total Radium Calculation	Total Radium	0.0749 ± 1.13 (2.37)	pCi/L		06/18/24 16:41	
SM 2320B	Alkalinity, Total as CaCO3	349	mg/L	10.0	06/03/24 22:00	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	349	mg/L	10.0	06/03/24 22:00	
SM 2540C	Total Dissolved Solids	912	mg/L	20.0	05/29/24 13:37	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	06/07/24 12:35	H3
EPA 365.1	Phosphate as P04	0.79	mg/L	0.15	06/06/24 18:37	
SM 5310C	Dissolved Organic Carbon	3.0	mg/L	1.0	06/07/24 01:10	
50373951002	**MW-46I**					
EPA 9056	Chloride	7.6	mg/L	0.25	06/07/24 05:37	
EPA 9056	Fluoride	0.12	mg/L	0.10	06/07/24 05:37	
EPA 9056	Sulfate	333	mg/L	2.5	06/07/24 05:54	
EPA 6010	Boron	720	ug/L	100	05/31/24 23:19	
EPA 6010	Calcium	158000	ug/L	1000	05/31/24 23:19	
EPA 6010	Iron	4980	ug/L	100	05/31/24 23:19	
EPA 6010	Magnesium	53000	ug/L	1000	05/31/24 23:19	
EPA 6010	Sodium	7700	ug/L	1000	05/31/24 23:19	
EPA 6010	Boron, Dissolved	718	ug/L	100	06/05/24 13:30	
EPA 6010	Magnesium, Dissolved	53500	ug/L	1000	06/05/24 13:30	
EPA 6020	Barium	71.2	ug/L	1.0	05/31/24 07:28	
EPA 6020	Manganese	1230	ug/L	10.0	05/31/24 05:53	
EPA 903.1	Radium-226	-0.187 ± 0.562 (1.18) C:NA T:84%	pCi/L		06/18/24 15:14	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50373951002	**MW-46I**					
EPA 904.0	Radium-228	0.878 ± 0.396 (0.650) C:86% T:85%	pCi/L		06/13/24 11:32	
Total Radium Calculation	Total Radium	0.878 ± 0.958 (1.83)	pCi/L		06/18/24 16:41	
SM 2320B	Alkalinity, Total as CaCO3	322	mg/L	10.0	06/03/24 22:00	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	322	mg/L	10.0	06/03/24 22:00	
SM 2540C	Total Dissolved Solids	736	mg/L	10.0	05/29/24 13:37	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	06/07/24 12:36	H3
EPA 365.1	Phosphate as P04	0.48	mg/L	0.15	06/06/24 18:38	
50373951003	**MW-47A**					
EPA 9056	Chloride	6.8	mg/L	0.25	06/07/24 06:11	
EPA 9056	Sulfate	382	mg/L	2.5	06/07/24 06:27	
EPA 6010	Boron	1120	ug/L	100	05/31/24 23:20	
EPA 6010	Calcium	162000	ug/L	1000	05/31/24 23:20	
EPA 6010	Iron	7220	ug/L	100	05/31/24 23:20	
EPA 6010	Magnesium	46600	ug/L	1000	05/31/24 23:20	
EPA 6010	Potassium	1940	ug/L	1000	05/31/24 23:20	
EPA 6010	Sodium	8360	ug/L	1000	05/31/24 23:20	
EPA 6010	Boron, Dissolved	1100	ug/L	100	06/05/24 13:32	
EPA 6010	Magnesium, Dissolved	45800	ug/L	1000	06/05/24 13:32	
EPA 6010	Potassium, Dissolved	1910	ug/L	1000	06/05/24 13:32	
EPA 6020	Arsenic	1.3	ug/L	1.0	05/31/24 07:32	
EPA 6020	Barium	47.1	ug/L	1.0	05/31/24 07:32	
EPA 6020	Manganese	388	ug/L	5.0	05/31/24 05:57	
EPA 903.1	Radium-226	0.0570 ± 0.580 (1.11) C:NA T:92%	pCi/L		06/18/24 15:26	
EPA 904.0	Radium-228	0.109 ± 0.317 (0.712) C:88% T:82%	pCi/L		06/13/24 11:34	
Total Radium Calculation	Total Radium	0.166 ± 0.897 (1.82)	pCi/L		06/18/24 16:41	
SM 2320B	Alkalinity, Total as CaCO3	249	mg/L	10.0	06/03/24 22:00	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	249	mg/L	10.0	06/03/24 22:00	
SM 2540C	Total Dissolved Solids	722	mg/L	10.0	05/29/24 10:23	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	06/07/24 12:36	H3
EPA 365.1	Phosphate as P04	0.69	mg/L	0.15	06/06/24 18:38	
50373951004	**MW-47I**					
EPA 9056	Chloride	6.6	mg/L	0.25	06/07/24 06:44	
EPA 9056	Fluoride	0.11	mg/L	0.10	06/07/24 06:44	
EPA 9056	Sulfate	338	mg/L	2.5	06/07/24 07:01	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50373951004	**MW-47I**					
EPA 6010	Boron	901	ug/L	100	05/31/24 23:22	
EPA 6010	Calcium	150000	ug/L	1000	05/31/24 23:22	
EPA 6010	Iron	2530	ug/L	100	05/31/24 23:22	
EPA 6010	Magnesium	42900	ug/L	1000	05/31/24 23:22	
EPA 6010	Sodium	7820	ug/L	1000	05/31/24 23:22	
EPA 6010	Boron, Dissolved	934	ug/L	100	06/05/24 13:34	
EPA 6010	Magnesium, Dissolved	44400	ug/L	1000	06/05/24 13:34	
EPA 6020	Barium	60.8	ug/L	1.0	05/31/24 07:44	
EPA 6020	Manganese	1490	ug/L	10.0	05/31/24 06:09	
EPA 903.1	Radium-226	-0.223 ± 0.382 (0.840) C:NA T:93%	pCi/L		06/18/24 15:14	
EPA 904.0	Radium-228	0.194 ± 0.278 (0.597) C:89% T:84%	pCi/L		06/13/24 11:32	
Total Radium Calculation	Total Radium	0.194 ± 0.660 (1.44)	pCi/L		06/18/24 16:41	
SM 2320B	Alkalinity, Total as CaCO3	258	mg/L	10.0	06/03/24 22:00	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	258	mg/L	10.0	06/03/24 22:00	
SM 2540C	Total Dissolved Solids	663	mg/L	10.0	05/29/24 10:25	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	06/07/24 12:37	H3
EPA 365.1	Phosphate as P04	0.32	mg/L	0.15	06/06/24 18:39	
50373951005	**MW-47I MS**					
EPA 903.1	Radium-226	115.37 %REC ± NA (NA) C:NA T:NA	pCi/L		06/18/24 15:14	
EPA 904.0	Radium-228	86.64 %REC ± NA (NA) C:NA T:NA	pCi/L		06/13/24 11:44	
50373951006	**MW-47I MSD**					
EPA 903.1	Radium-226	119.27 %REC 3.32RPD ± NA (NA) C:NA T:NA	pCi/L		06/18/24 15:14	
EPA 904.0	Radium-228	94.04 %REC 8.19RPD ± NA (NA) C:NA T:NA	pCi/L		06/13/24 11:33	
50373951007	**MW-47B**					
EPA 9056	Chloride	14.0	mg/L	0.25	06/07/24 07:52	
EPA 9056	Sulfate	50.5	mg/L	2.5	06/07/24 08:09	
EPA 6010	Calcium	186000	ug/L	1000	05/31/24 23:34	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50373951007	**MW-47B**					
EPA 6010	Iron	2480	ug/L	100	05/31/24 23:34	
EPA 6010	Magnesium	45100	ug/L	1000	05/31/24 23:34	
EPA 6010	Sodium	8510	ug/L	1000	05/31/24 23:34	
EPA 6010	Magnesium, Dissolved	43000	ug/L	1000	06/05/24 13:46	
EPA 6020	Arsenic	1.3	ug/L	1.0	05/31/24 08:12	
EPA 6020	Barium	111	ug/L	1.0	05/31/24 08:12	
EPA 6020	Cobalt	1.6	ug/L	1.0	05/31/24 08:12	
EPA 6020	Manganese	705	ug/L	5.0	05/31/24 06:36	
EPA 903.1	Radium-226	-0.321 ± 0.493 (1.08) C:NA T:101%	pCi/L		06/18/24 15:14	
EPA 904.0	Radium-228	-0.00749 ± 0.293 (0.685) C:89% T:87%	pCi/L		06/13/24 11:34	
Total Radium Calculation	Total Radium	0.000 ± 0.786 (1.77)	pCi/L		06/18/24 16:41	
SM 2320B	Alkalinity, Total as CaCO3	621	mg/L	10.0	06/03/24 22:00	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	621	mg/L	10.0	06/03/24 22:00	
SM 2540C	Total Dissolved Solids	643	mg/L	10.0	05/29/24 10:26	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	06/07/24 12:38	H3
EPA 365.1	Phosphate as P04	0.31	mg/L	0.15	06/06/24 18:41	
50373951008	**DUP-9**					
EPA 9056	Chloride	14.5	mg/L	0.25	06/07/24 09:33	
EPA 9056	Sulfate	47.9	mg/L	2.5	06/07/24 09:49	
EPA 6010	Calcium	186000	ug/L	1000	05/31/24 23:36	
EPA 6010	Iron	2490	ug/L	100	05/31/24 23:36	
EPA 6010	Magnesium	45000	ug/L	1000	05/31/24 23:36	
EPA 6010	Sodium	8740	ug/L	1000	05/31/24 23:36	
EPA 6010	Magnesium, Dissolved	43400	ug/L	1000	06/05/24 13:48	
EPA 6020	Arsenic	1.3	ug/L	1.0	05/31/24 08:16	
EPA 6020	Barium	109	ug/L	1.0	05/31/24 08:16	
EPA 6020	Cobalt	1.6	ug/L	1.0	05/31/24 08:16	
EPA 6020	Manganese	704	ug/L	5.0	05/31/24 06:44	
EPA 903.1	Radium-226	0.242 ± 0.650 (1.18) C:NA T:89%	pCi/L		06/18/24 15:14	
EPA 904.0	Radium-228	0.428 ± 0.331 (0.651) C:87% T:86%	pCi/L		06/13/24 11:32	
Total Radium Calculation	Total Radium	0.670 ± 0.981 (1.83)	pCi/L		06/18/24 16:41	
SM 2320B	Alkalinity, Total as CaCO3	624	mg/L	10.0	06/03/24 22:00	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50373951008	**DUP-9**					
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	624	mg/L	10.0	06/03/24 22:00	
SM 2540C	Total Dissolved Solids	648	mg/L	10.0	05/29/24 10:27	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	06/07/24 12:38	H3
EPA 365.1	Phosphate as P04	0.31	mg/L	0.15	06/06/24 18:41	
SM 5310C	Dissolved Organic Carbon	1.1	mg/L	1.0	06/07/24 13:32	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Sample: MW-46A **Lab ID: 50373951001** Collected: 05/22/24 12:40 Received: 05/23/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**8.5**	mg/L	0.25	0.067	1		06/07/24 05:03	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		06/07/24 05:03	16984-48-8	
Sulfate	**462**	mg/L	2.5	1.9	10		06/07/24 05:20	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**1270**	ug/L	100	6.2	1	05/31/24 08:07	05/31/24 23:17	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/31/24 08:07	05/31/24 23:17	7440-43-9	
Calcium	**196000**	ug/L	1000	67.7	1	05/31/24 08:07	05/31/24 23:17	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/31/24 08:07	05/31/24 23:17	7440-47-3	
Iron	**10200**	ug/L	100	30.0	1	05/31/24 08:07	05/31/24 23:17	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/31/24 08:07	05/31/24 23:17	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/31/24 08:07	05/31/24 23:17	7439-93-2	
Magnesium	**59400**	ug/L	1000	33.6	1	05/31/24 08:07	05/31/24 23:17	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	05/31/24 08:07	05/31/24 23:17	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	05/31/24 08:07	05/31/24 23:17	7440-09-7	
Sodium	**9350**	ug/L	1000	54.8	1	05/31/24 08:07	05/31/24 23:17	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1260**	ug/L	100	6.2	1	06/04/24 16:04	06/05/24 13:28	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	06/04/24 16:04	06/05/24 13:28	7439-93-2	
Magnesium, Dissolved	**60100**	ug/L	1000	33.6	1	06/04/24 16:04	06/05/24 13:28	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	06/04/24 16:04	06/05/24 13:28	7439-98-7	CU
Potassium, Dissolved	ND	ug/L	1000	97.8	1	06/04/24 16:04	06/05/24 13:28	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	05/30/24 15:48	05/31/24 07:24	7440-36-0	
Arsenic	**3.1**	ug/L	1.0	0.10	1	05/30/24 15:48	05/31/24 07:24	7440-38-2	
Barium	**26.4**	ug/L	1.0	0.062	1	05/30/24 15:48	05/31/24 07:24	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	05/30/24 15:48	05/31/24 07:24	7440-41-7	
Cobalt	ND	ug/L	1.0	0.060	1	05/30/24 15:48	05/31/24 07:24	7440-48-4	
Manganese	**2380**	ug/L	20.0	3.0	20	05/30/24 15:48	05/31/24 05:49	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	05/30/24 15:48	05/31/24 07:24	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	05/30/24 15:48	05/31/24 07:24	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	05/30/24 15:18	05/31/24 04:21	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/06/24 10:06	06/06/24 17:15	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Sample: MW-46A **Lab ID: 50373951001** Collected: 05/22/24 12:40 Received: 05/23/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**349**	mg/L	10.0	10.0	1		06/03/24 22:00		
Alkalinity,Bicarbonate (CaCO3)	**349**	mg/L	10.0	10.0	1		06/03/24 22:00		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/03/24 22:00		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**912**	mg/L	20.0	20.0	1		05/29/24 13:37		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.7**	Std. Units	0.10	0.10	1		06/07/24 12:35		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/28/24 08:29	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/23/24 23:54	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.79**	mg/L	0.15	0.13	1	06/05/24 13:00	06/06/24 18:37		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.0**	mg/L	1.0	0.25	1		06/07/24 01:10		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Sample: MW-46I **Lab ID: 50373951002** Collected: 05/22/24 10:05 Received: 05/23/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**7.6**	mg/L	0.25	0.067	1		06/07/24 05:37	16887-00-6	
Fluoride	**0.12**	mg/L	0.10	0.017	1		06/07/24 05:37	16984-48-8	
Sulfate	**333**	mg/L	2.5	1.9	10		06/07/24 05:54	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**720**	ug/L	100	6.2	1	05/31/24 08:07	05/31/24 23:19	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/31/24 08:07	05/31/24 23:19	7440-43-9	
Calcium	**158000**	ug/L	1000	67.7	1	05/31/24 08:07	05/31/24 23:19	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/31/24 08:07	05/31/24 23:19	7440-47-3	
Iron	**4980**	ug/L	100	30.0	1	05/31/24 08:07	05/31/24 23:19	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/31/24 08:07	05/31/24 23:19	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/31/24 08:07	05/31/24 23:19	7439-93-2	
Magnesium	**53000**	ug/L	1000	33.6	1	05/31/24 08:07	05/31/24 23:19	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	05/31/24 08:07	05/31/24 23:19	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	05/31/24 08:07	05/31/24 23:19	7440-09-7	
Sodium	**7700**	ug/L	1000	54.8	1	05/31/24 08:07	05/31/24 23:19	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**718**	ug/L	100	6.2	1	06/04/24 16:04	06/05/24 13:30	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	06/04/24 16:04	06/05/24 13:30	7439-93-2	
Magnesium, Dissolved	**53500**	ug/L	1000	33.6	1	06/04/24 16:04	06/05/24 13:30	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	06/04/24 16:04	06/05/24 13:30	7439-98-7	CU
Potassium, Dissolved	ND	ug/L	1000	97.8	1	06/04/24 16:04	06/05/24 13:30	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	05/30/24 15:48	05/31/24 07:28	7440-36-0	
Arsenic	ND	ug/L	1.0	0.10	1	05/30/24 15:48	05/31/24 07:28	7440-38-2	
Barium	**71.2**	ug/L	1.0	0.062	1	05/30/24 15:48	05/31/24 07:28	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	05/30/24 15:48	05/31/24 07:28	7440-41-7	
Cobalt	ND	ug/L	1.0	0.060	1	05/30/24 15:48	05/31/24 07:28	7440-48-4	
Manganese	**1230**	ug/L	10.0	1.5	10	05/30/24 15:48	05/31/24 05:53	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	05/30/24 15:48	05/31/24 07:28	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	05/30/24 15:48	05/31/24 07:28	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	05/30/24 15:18	05/31/24 04:25	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/06/24 10:06	06/06/24 17:18	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Sample: MW-46I **Lab ID: 50373951002** Collected: 05/22/24 10:05 Received: 05/23/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**322**	mg/L	10.0	10.0	1		06/03/24 22:00		
Alkalinity,Bicarbonate (CaCO3)	**322**	mg/L	10.0	10.0	1		06/03/24 22:00		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/03/24 22:00		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**736**	mg/L	10.0	10.0	1		05/29/24 13:37		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.5**	Std. Units	0.10	0.10	1		06/07/24 12:36		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/28/24 08:29	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/23/24 23:10	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.48**	mg/L	0.15	0.13	1	06/05/24 13:00	06/06/24 18:38		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.25	1		06/07/24 11:11		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Sample: MW-47A **Lab ID: 50373951003** Collected: 05/22/24 15:23 Received: 05/23/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**6.8**	mg/L	0.25	0.067	1		06/07/24 06:11	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		06/07/24 06:11	16984-48-8	
Sulfate	**382**	mg/L	2.5	1.9	10		06/07/24 06:27	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**1120**	ug/L	100	6.2	1	05/31/24 08:07	05/31/24 23:20	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/31/24 08:07	05/31/24 23:20	7440-43-9	
Calcium	**162000**	ug/L	1000	67.7	1	05/31/24 08:07	05/31/24 23:20	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/31/24 08:07	05/31/24 23:20	7440-47-3	
Iron	**7220**	ug/L	100	30.0	1	05/31/24 08:07	05/31/24 23:20	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/31/24 08:07	05/31/24 23:20	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/31/24 08:07	05/31/24 23:20	7439-93-2	
Magnesium	**46600**	ug/L	1000	33.6	1	05/31/24 08:07	05/31/24 23:20	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	05/31/24 08:07	05/31/24 23:20	7439-98-7	
Potassium	**1940**	ug/L	1000	97.8	1	05/31/24 08:07	05/31/24 23:20	7440-09-7	
Sodium	**8360**	ug/L	1000	54.8	1	05/31/24 08:07	05/31/24 23:20	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1100**	ug/L	100	6.2	1	06/04/24 16:04	06/05/24 13:32	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	06/04/24 16:04	06/05/24 13:32	7439-93-2	
Magnesium, Dissolved	**45800**	ug/L	1000	33.6	1	06/04/24 16:04	06/05/24 13:32	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	06/04/24 16:04	06/05/24 13:32	7439-98-7	CU
Potassium, Dissolved	**1910**	ug/L	1000	97.8	1	06/04/24 16:04	06/05/24 13:32	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	05/30/24 15:48	05/31/24 07:32	7440-36-0	
Arsenic	**1.3**	ug/L	1.0	0.10	1	05/30/24 15:48	05/31/24 07:32	7440-38-2	
Barium	**47.1**	ug/L	1.0	0.062	1	05/30/24 15:48	05/31/24 07:32	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	05/30/24 15:48	05/31/24 07:32	7440-41-7	
Cobalt	ND	ug/L	1.0	0.060	1	05/30/24 15:48	05/31/24 07:32	7440-48-4	
Manganese	**388**	ug/L	5.0	0.74	5	05/30/24 15:48	05/31/24 05:57	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	05/30/24 15:48	05/31/24 07:32	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	05/30/24 15:48	05/31/24 07:32	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	05/30/24 15:18	05/31/24 04:29	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/06/24 10:06	06/06/24 17:20	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Sample: MW-47A **Lab ID: 50373951003** Collected: 05/22/24 15:23 Received: 05/23/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**249**	mg/L	10.0	10.0	1		06/03/24 22:00		
Alkalinity,Bicarbonate (CaCO3)	**249**	mg/L	10.0	10.0	1		06/03/24 22:00		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/03/24 22:00		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**722**	mg/L	10.0	10.0	1		05/29/24 10:23		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		06/07/24 12:36		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.50	0.12	5		05/28/24 08:29	18496-25-8	D3
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/24/24 01:03	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.69**	mg/L	0.15	0.13	1	06/05/24 13:00	06/06/24 18:38		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.25	1		06/07/24 11:36		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Sample: MW-47I **Lab ID: 50373951004** Collected: 05/22/24 12:15 Received: 05/23/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**6.6**	mg/L	0.25	0.067	1		06/07/24 06:44	16887-00-6	
Fluoride	**0.11**	mg/L	0.10	0.017	1		06/07/24 06:44	16984-48-8	
Sulfate	**338**	mg/L	2.5	1.9	10		06/07/24 07:01	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**901**	ug/L	100	6.2	1	05/31/24 08:07	05/31/24 23:22	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/31/24 08:07	05/31/24 23:22	7440-43-9	
Calcium	**150000**	ug/L	1000	67.7	1	05/31/24 08:07	05/31/24 23:22	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/31/24 08:07	05/31/24 23:22	7440-47-3	
Iron	**2530**	ug/L	100	30.0	1	05/31/24 08:07	05/31/24 23:22	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/31/24 08:07	05/31/24 23:22	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/31/24 08:07	05/31/24 23:22	7439-93-2	
Magnesium	**42900**	ug/L	1000	33.6	1	05/31/24 08:07	05/31/24 23:22	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	05/31/24 08:07	05/31/24 23:22	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	05/31/24 08:07	05/31/24 23:22	7440-09-7	
Sodium	**7820**	ug/L	1000	54.8	1	05/31/24 08:07	05/31/24 23:22	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**934**	ug/L	100	6.2	1	06/04/24 16:04	06/05/24 13:34	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	06/04/24 16:04	06/05/24 13:34	7439-93-2	
Magnesium, Dissolved	**44400**	ug/L	1000	33.6	1	06/04/24 16:04	06/05/24 13:34	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	06/04/24 16:04	06/05/24 13:34	7439-98-7	CU
Potassium, Dissolved	ND	ug/L	1000	97.8	1	06/04/24 16:04	06/05/24 13:34	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	05/30/24 15:48	05/31/24 07:44	7440-36-0	
Arsenic	ND	ug/L	1.0	0.10	1	05/30/24 15:48	05/31/24 07:44	7440-38-2	
Barium	**60.8**	ug/L	1.0	0.062	1	05/30/24 15:48	05/31/24 07:44	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	05/30/24 15:48	05/31/24 07:44	7440-41-7	
Cobalt	ND	ug/L	1.0	0.060	1	05/30/24 15:48	05/31/24 07:44	7440-48-4	
Manganese	**1490**	ug/L	10.0	1.5	10	05/30/24 15:48	05/31/24 06:09	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	05/30/24 15:48	05/31/24 07:44	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	05/30/24 15:48	05/31/24 07:44	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	05/30/24 15:18	05/31/24 04:49	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/06/24 10:06	06/06/24 17:23	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Sample: MW-47I **Lab ID: 50373951004** Collected: 05/22/24 12:15 Received: 05/23/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**258**	mg/L	10.0	10.0	1		06/03/24 22:00		
Alkalinity,Bicarbonate (CaCO3)	**258**	mg/L	10.0	10.0	1		06/03/24 22:00		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/03/24 22:00		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**663**	mg/L	10.0	10.0	1		05/29/24 10:25		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		06/07/24 12:37		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.50	0.12	5		05/28/24 11:41	18496-25-8	D3
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/23/24 23:40	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.32**	mg/L	0.15	0.13	1	06/05/24 13:00	06/06/24 18:39		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.25	1		06/07/24 12:02		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Sample: MW-47B **Lab ID: 50373951007** Collected: 05/22/24 15:05 Received: 05/23/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**14.0**	mg/L	0.25	0.067	1		06/07/24 07:52	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		06/07/24 07:52	16984-48-8	
Sulfate	**50.5**	mg/L	2.5	1.9	10		06/07/24 08:09	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	ND	ug/L	100	6.2	1	05/31/24 08:07	05/31/24 23:34	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/31/24 08:07	05/31/24 23:34	7440-43-9	
Calcium	**186000**	ug/L	1000	67.7	1	05/31/24 08:07	05/31/24 23:34	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/31/24 08:07	05/31/24 23:34	7440-47-3	
Iron	**2480**	ug/L	100	30.0	1	05/31/24 08:07	05/31/24 23:34	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/31/24 08:07	05/31/24 23:34	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/31/24 08:07	05/31/24 23:34	7439-93-2	
Magnesium	**45100**	ug/L	1000	33.6	1	05/31/24 08:07	05/31/24 23:34	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	05/31/24 08:07	05/31/24 23:34	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	05/31/24 08:07	05/31/24 23:34	7440-09-7	
Sodium	**8510**	ug/L	1000	54.8	1	05/31/24 08:07	05/31/24 23:34	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	ND	ug/L	100	6.2	1	06/04/24 16:04	06/05/24 13:46	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	06/04/24 16:04	06/05/24 13:46	7439-93-2	
Magnesium, Dissolved	**43000**	ug/L	1000	33.6	1	06/04/24 16:04	06/05/24 13:46	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	06/04/24 16:04	06/05/24 13:46	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	97.8	1	06/04/24 16:04	06/05/24 13:46	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	05/30/24 15:48	05/31/24 08:12	7440-36-0	
Arsenic	**1.3**	ug/L	1.0	0.10	1	05/30/24 15:48	05/31/24 08:12	7440-38-2	
Barium	**111**	ug/L	1.0	0.062	1	05/30/24 15:48	05/31/24 08:12	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	05/30/24 15:48	05/31/24 08:12	7440-41-7	
Cobalt	**1.6**	ug/L	1.0	0.060	1	05/30/24 15:48	05/31/24 08:12	7440-48-4	
Manganese	**705**	ug/L	5.0	0.74	5	05/30/24 15:48	05/31/24 06:36	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	05/30/24 15:48	05/31/24 08:12	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	05/30/24 15:48	05/31/24 08:12	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	05/30/24 15:18	05/31/24 04:33	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/06/24 10:06	06/06/24 17:37	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Sample: MW-47B **Lab ID: 50373951007** Collected: 05/22/24 15:05 Received: 05/23/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**621**	mg/L	10.0	10.0	1		06/03/24 22:00		
Alkalinity,Bicarbonate (CaCO3)	**621**	mg/L	10.0	10.0	1		06/03/24 22:00		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/03/24 22:00		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**643**	mg/L	10.0	10.0	1		05/29/24 10:26		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		06/07/24 12:38		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/28/24 08:29	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/24/24 00:54	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.31**	mg/L	0.15	0.13	1	06/05/24 13:00	06/06/24 18:41		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.25	1		06/07/24 13:06		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Sample: DUP-9 **Lab ID: 50373951008** Collected: 05/22/24 08:00 Received: 05/23/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**14.5**	mg/L	0.25	0.067	1		06/07/24 09:33	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		06/07/24 09:33	16984-48-8	
Sulfate	**47.9**	mg/L	2.5	1.9	10		06/07/24 09:49	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	ND	ug/L	100	6.2	1	05/31/24 08:07	05/31/24 23:36	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	05/31/24 08:07	05/31/24 23:36	7440-43-9	
Calcium	**186000**	ug/L	1000	67.7	1	05/31/24 08:07	05/31/24 23:36	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	05/31/24 08:07	05/31/24 23:36	7440-47-3	
Iron	**2490**	ug/L	100	30.0	1	05/31/24 08:07	05/31/24 23:36	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	05/31/24 08:07	05/31/24 23:36	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	05/31/24 08:07	05/31/24 23:36	7439-93-2	
Magnesium	**45000**	ug/L	1000	33.6	1	05/31/24 08:07	05/31/24 23:36	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	05/31/24 08:07	05/31/24 23:36	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	05/31/24 08:07	05/31/24 23:36	7440-09-7	
Sodium	**8740**	ug/L	1000	54.8	1	05/31/24 08:07	05/31/24 23:36	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	ND	ug/L	100	6.2	1	06/04/24 16:04	06/05/24 13:48	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	06/04/24 16:04	06/05/24 13:48	7439-93-2	
Magnesium, Dissolved	**43400**	ug/L	1000	33.6	1	06/04/24 16:04	06/05/24 13:48	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	06/04/24 16:04	06/05/24 13:48	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	97.8	1	06/04/24 16:04	06/05/24 13:48	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	05/30/24 15:48	05/31/24 08:16	7440-36-0	
Arsenic	**1.3**	ug/L	1.0	0.10	1	05/30/24 15:48	05/31/24 08:16	7440-38-2	
Barium	**109**	ug/L	1.0	0.062	1	05/30/24 15:48	05/31/24 08:16	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	05/30/24 15:48	05/31/24 08:16	7440-41-7	
Cobalt	**1.6**	ug/L	1.0	0.060	1	05/30/24 15:48	05/31/24 08:16	7440-48-4	
Manganese	**704**	ug/L	5.0	0.74	5	05/30/24 15:48	05/31/24 06:44	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	05/30/24 15:48	05/31/24 08:16	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	05/30/24 15:48	05/31/24 08:16	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	05/30/24 15:18	05/31/24 04:37	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/06/24 10:06	06/06/24 17:40	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Sample: DUP-9 **Lab ID: 50373951008** Collected: 05/22/24 08:00 Received: 05/23/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**624**	mg/L	10.0	10.0	1		06/03/24 22:00		
Alkalinity,Bicarbonate (CaCO3)	**624**	mg/L	10.0	10.0	1		06/03/24 22:00		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/03/24 22:00		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**648**	mg/L	10.0	10.0	1		05/29/24 10:27		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		06/07/24 12:38		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/28/24 11:41	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/23/24 17:44	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.31**	mg/L	0.15	0.13	1	06/05/24 13:00	06/06/24 18:41		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.1**	mg/L	1.0	0.25	1		06/07/24 13:32		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

QC Batch: 793926
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373951001, 50373951002, 50373951003, 50373951004, 50373951007, 50373951008

METHOD BLANK: 3632448 Matrix: Water
Associated Lab Samples: 50373951001, 50373951002, 50373951003, 50373951004, 50373951007, 50373951008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	06/07/24 10:06	
Fluoride	mg/L	ND	0.10	0.017	06/07/24 10:06	
Sulfate	mg/L	ND	0.25	0.19	06/07/24 10:06	

LABORATORY CONTROL SAMPLE: 3632449

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	92	80-120	
Fluoride	mg/L	1	0.95	95	80-120	
Sulfate	mg/L	5	4.8	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3632450 3632451

Parameter	Units	50373951004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	6.6	2.5	2.5	9.1	9.2	98	101	80-120	1	15	
Fluoride	mg/L	0.11	1	1	1.1	1.1	101	101	80-120	0	15	
Sulfate	mg/L	338	50	50	387	387	97	97	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

QC Batch: 793462 | Analysis Method: EPA 7470
QC Batch Method: EPA 7470 | Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373951001, 50373951002, 50373951003, 50373951004, 50373951007, 50373951008

METHOD BLANK: 3630642 Matrix: Water
Associated Lab Samples: 50373951001, 50373951002, 50373951003, 50373951004, 50373951007, 50373951008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	06/06/24 16:34	

LABORATORY CONTROL SAMPLE: 3630643

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3630644 3630645

Parameter	Units	50373951004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.0	5.0	100	100	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

QC Batch: 792976
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373951001, 50373951002, 50373951003, 50373951004, 50373951007, 50373951008

METHOD BLANK: 3628560 Matrix: Water
Associated Lab Samples: 50373951001, 50373951002, 50373951003, 50373951004, 50373951007, 50373951008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	05/31/24 23:15	
Cadmium	ug/L	ND	2.0	0.60	05/31/24 23:15	
Calcium	ug/L	ND	1000	67.7	05/31/24 23:15	
Chromium	ug/L	ND	10.0	0.42	05/31/24 23:15	
Iron	ug/L	ND	100	30.0	05/31/24 23:15	
Lead	ug/L	ND	10.0	2.5	05/31/24 23:15	
Lithium	ug/L	ND	20.0	6.8	05/31/24 23:15	
Magnesium	ug/L	ND	1000	33.6	05/31/24 23:15	
Molybdenum	ug/L	ND	10.0	0.78	05/31/24 23:15	
Potassium	ug/L	ND	1000	97.8	05/31/24 23:15	
Sodium	ug/L	ND	1000	54.8	05/31/24 23:15	

LABORATORY CONTROL SAMPLE: 3628561

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	960	96	80-120	
Cadmium	ug/L	1000	966	97	80-120	
Calcium	ug/L	10000	9730	97	80-120	
Chromium	ug/L	1000	958	96	80-120	
Iron	ug/L	10000	9520	95	80-120	
Lead	ug/L	1000	957	96	80-120	
Lithium	ug/L	1000	974	97	80-120	
Magnesium	ug/L	10000	9610	96	80-120	
Molybdenum	ug/L	1000	1030	103	80-120	
Potassium	ug/L	10000	9700	97	80-120	
Sodium	ug/L	10000	9670	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3628562 3628563

Parameter	Units	50373951004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	901	1000	1000	1960	1900	106	100	75-125	3	20	
Cadmium	ug/L	ND	1000	1000	1020	997	102	100	75-125	2	20	
Calcium	ug/L	150000	10000	10000	163000	158000	131	77	75-125	3	20	P6
Chromium	ug/L	ND	1000	1000	997	972	100	97	75-125	3	20	
Iron	ug/L	2530	10000	10000	12500	12100	99	96	75-125	3	20	
Lead	ug/L	ND	1000	1000	988	967	99	97	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3628562 3628563

Parameter	Units	50373951004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	ND	1000	1000	1030	1020	103	102	75-125	1	20	
Magnesium	ug/L	42900	10000	10000	53900	52100	110	92	75-125	3	20	
Molybdenum	ug/L	ND	1000	1000	1090	1070	109	107	75-125	2	20	
Potassium	ug/L	ND	10000	10000	11100	11000	101	100	75-125	1	20	
Sodium	ug/L	7820	10000	10000	17900	17600	101	98	75-125	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3628564 3628565

Parameter	Units	50374366004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	ND	5000	5000	5110	5200	99	100	75-125	2	20	
Cadmium	ug/L	ND	5000	5000	4910	4930	98	98	75-125	0	20	
Calcium	ug/L	637000	50000	50000	689000	690000	104	106	75-125	0	20	
Chromium	ug/L	157	5000	5000	4950	4980	96	96	75-125	1	20	
Iron	ug/L	148000	50000	50000	196000	194000	96	92	75-125	1	20	
Lead	ug/L	161	5000	5000	4880	4940	94	96	75-125	1	20	
Lithium	ug/L	116	5000	5000	5160	5140	101	100	75-125	1	20	
Magnesium	ug/L	228000	50000	50000	280000	279000	103	102	75-125	0	20	
Molybdenum	ug/L	ND	5000	5000	5210	5230	103	104	75-125	0	20	
Potassium	ug/L	21100	50000	50000	74900	73500	108	105	75-125	2	20	
Sodium	ug/L	13800	50000	50000	63400	63400	99	99	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

QC Batch: 793580
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373951001, 50373951002, 50373951003, 50373951004, 50373951007, 50373951008

METHOD BLANK: 3630956 Matrix: Water
Associated Lab Samples: 50373951001, 50373951002, 50373951003, 50373951004, 50373951007, 50373951008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	06/05/24 12:57	
Lithium, Dissolved	ug/L	ND	20.0	6.8	06/05/24 12:57	
Magnesium, Dissolved	ug/L	ND	1000	33.6	06/05/24 12:57	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	06/05/24 15:02	
Potassium, Dissolved	ug/L	ND	1000	97.8	06/05/24 12:57	

LABORATORY CONTROL SAMPLE: 3630957

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	944	94	80-120	
Lithium, Dissolved	ug/L	1000	935	93	80-120	
Magnesium, Dissolved	ug/L	10000	9580	96	80-120	
Molybdenum, Dissolved	ug/L	1000	976	98	80-120	
Potassium, Dissolved	ug/L	10000	9210	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3630958 3630959

Parameter	Units	50373951004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	934	1000	1000	1890	1830	95	89	75-125	3	20	
Lithium, Dissolved	ug/L	ND	1000	1000	972	932	97	93	75-125	4	20	
Magnesium, Dissolved	ug/L	44400	10000	10000	52700	50700	83	62	75-125	4	20	P6
Molybdenum, Dissolved	ug/L	ND	1000	1000	1050	1020	105	102	75-125	3	20	
Potassium, Dissolved	ug/L	ND	10000	10000	10700	10100	98	92	75-125	6	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

QC Batch: 792874
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373951001, 50373951002, 50373951003, 50373951004, 50373951007, 50373951008

METHOD BLANK: 3628161 Matrix: Water
Associated Lab Samples: 50373951001, 50373951002, 50373951003, 50373951004, 50373951007, 50373951008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.26	05/31/24 05:41	
Arsenic	ug/L	ND	1.0	0.10	05/31/24 05:41	
Barium	ug/L	ND	1.0	0.062	05/31/24 05:41	
Beryllium	ug/L	ND	0.20	0.020	05/31/24 05:41	
Cobalt	ug/L	ND	1.0	0.060	05/31/24 05:41	
Manganese	ug/L	ND	1.0	0.15	05/31/24 05:41	
Selenium	ug/L	ND	1.0	0.36	05/31/24 05:41	
Thallium	ug/L	ND	1.0	0.079	05/31/24 05:41	

LABORATORY CONTROL SAMPLE: 3628162

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.7	107	80-120	
Arsenic	ug/L	40	42.1	105	80-120	
Barium	ug/L	40	40.1	100	80-120	
Beryllium	ug/L	40	38.3	96	80-120	
Cobalt	ug/L	40	40.8	102	80-120	
Manganese	ug/L	40	42.7	107	80-120	
Selenium	ug/L	40	38.3	96	80-120	
Thallium	ug/L	40	39.4	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3628163 3628164

Parameter	Units	50373951004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	44.2	43.8	110	109	75-125	1	20	
Arsenic	ug/L	ND	40	40	42.0	42.2	104	105	75-125	1	20	
Barium	ug/L	60.8	40	40	104	104	108	107	75-125	0	20	
Beryllium	ug/L	ND	40	40	38.0	37.4	95	93	75-125	2	20	
Cobalt	ug/L	ND	40	40	38.6	38.2	96	95	75-125	1	20	
Manganese	ug/L	1490	40	40	1540	1540	121	103	75-125	0	20	
Selenium	ug/L	ND	40	40	37.9	38.6	95	96	75-125	2	20	
Thallium	ug/L	ND	40	40	39.9	39.9	100	100	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

QC Batch: 792788
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373951001, 50373951002, 50373951003, 50373951004, 50373951007, 50373951008

METHOD BLANK: 3627822 Matrix: Water
Associated Lab Samples: 50373951001, 50373951002, 50373951003, 50373951004, 50373951007, 50373951008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.6	05/31/24 03:14	

LABORATORY CONTROL SAMPLE: 3627823

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	398	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3627824 3627825

Parameter	Units	50373951004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	381	396	95	99	75-125	4	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

QC Batch: 793447 | Analysis Method: SM 2320B
QC Batch Method: SM 2320B | Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373951001, 50373951002, 50373951003, 50373951004, 50373951007, 50373951008

METHOD BLANK: 3630595 Matrix: Water
Associated Lab Samples: 50373951001, 50373951002, 50373951003, 50373951004, 50373951007, 50373951008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	06/03/24 22:00	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	06/03/24 22:00	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	06/03/24 22:00	

LABORATORY CONTROL SAMPLE: 3630596

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.6	103	90-110	

SAMPLE DUPLICATE: 3630597

Parameter	Units	50373951004 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	258	263	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	258	263	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3630598

Parameter	Units	50374033006 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	510	520	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	510	520	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

QC Batch: 792457
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373951001, 50373951002

METHOD BLANK: 3626527 Matrix: Water
Associated Lab Samples: 50373951001, 50373951002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/29/24 13:31	

LABORATORY CONTROL SAMPLE: 3626528

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	271	90	80-120	

SAMPLE DUPLICATE: 3626529

Parameter	Units	50373908006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1720	1750	1	10	

SAMPLE DUPLICATE: 3626530

Parameter	Units	50373951002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	736	765	4	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

QC Batch: 792458 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373951003, 50373951004, 50373951007, 50373951008

METHOD BLANK: 3626531 Matrix: Water
Associated Lab Samples: 50373951003, 50373951004, 50373951007, 50373951008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/29/24 10:22	

LABORATORY CONTROL SAMPLE: 3626532

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	273	91	80-120	

SAMPLE DUPLICATE: 3626533

Parameter	Units	50373951003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	722	725	0	10	

SAMPLE DUPLICATE: 3626534

Parameter	Units	50374070004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	4230	4040	4	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

QC Batch: 794006
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373951001, 50373951002, 50373951003, 50373951004, 50373951007, 50373951008

SAMPLE DUPLICATE: 3632713

Parameter	Units	50373911001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.0	1	2	H3

SAMPLE DUPLICATE: 3632714

Parameter	Units	50373951004 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.3	0	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

QC Batch: 792229
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373951001, 50373951002, 50373951003, 50373951007

METHOD BLANK: 3625890 Matrix: Water
Associated Lab Samples: 50373951001, 50373951002, 50373951003, 50373951007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/28/24 08:29	

LABORATORY CONTROL SAMPLE: 3625891

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.51	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3625892 3625893

Parameter	Units	50373908001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	2.5	2.5	1.8	1.9	73	76	90-110	4	20	M3

MATRIX SPIKE SAMPLE: 3625894

Parameter	Units	50373908008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.18	33	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

QC Batch: 792265
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373951004, 50373951008

METHOD BLANK: 3625973 Matrix: Water
Associated Lab Samples: 50373951004, 50373951008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/28/24 11:41	

LABORATORY CONTROL SAMPLE: 3625974

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.50	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3625975 3625976

Parameter	Units	50373951004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	2.5	2.5	2.4	2.4	92	93	90-110	0	20	

MATRIX SPIKE SAMPLE: 3625977

Parameter	Units	50374090001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.26	51	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

QC Batch: 791757
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373951008

METHOD BLANK: 3623041 Matrix: Water
Associated Lab Samples: 50373951008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/23/24 18:31	

LABORATORY CONTROL SAMPLE: 3623042

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3623043 3623044

Parameter	Units	50373902006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	0.91	0.91	89	89	90-110	0	20	

MATRIX SPIKE SAMPLE: 3623045

Parameter	Units	50373905004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	0.80	78	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

QC Batch: 791823
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373951001, 50373951002, 50373951004

METHOD BLANK: 3623478 Matrix: Water
Associated Lab Samples: 50373951001, 50373951002, 50373951004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/23/24 23:02	

LABORATORY CONTROL SAMPLE: 3623479

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3623480 3623481

Parameter	Units	50373908001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	0.87	0.87	87	87	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3623482 3623483

Parameter	Units	50373951004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.0	1.0	100	101	90-110	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

QC Batch: 791824
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373951007

METHOD BLANK: 3623484 Matrix: Water
Associated Lab Samples: 50373951007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/23/24 23:58	

LABORATORY CONTROL SAMPLE: 3623485

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3623486 3623487

Parameter	Units	50374030002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	4.8	5	5	10.1	10.1	107	107	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3623488 3623489

Parameter	Units	50373902014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.0	1.0	101	99	90-110	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

QC Batch: 791825
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373951003

METHOD BLANK: 3623490 Matrix: Water
Associated Lab Samples: 50373951003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/24/24 01:26	

LABORATORY CONTROL SAMPLE: 3623491

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3623492 3623493

Parameter	Units	50373951003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.0	1.0	101	101	90-110	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

QC Batch: 793822 | Analysis Method: EPA 365.1
QC Batch Method: EPA 365.1 | Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373951001, 50373951002, 50373951003, 50373951004, 50373951007, 50373951008

METHOD BLANK: 3632110 Matrix: Water
Associated Lab Samples: 50373951001, 50373951002, 50373951003, 50373951004, 50373951007, 50373951008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	06/06/24 18:36	

LABORATORY CONTROL SAMPLE: 3632111

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3632112 3632113

Parameter	Units	50373951004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	0.32			1.8	1.7				5		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

QC Batch: 794196
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373951001

METHOD BLANK: 3633537 Matrix: Water
Associated Lab Samples: 50373951001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	06/06/24 21:02	

LABORATORY CONTROL SAMPLE: 3633538

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.6	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3633539 3633540

Parameter	Units	50373869008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.3	10	10	11.4	11.5	92	92	80-120	1	20	

MATRIX SPIKE SAMPLE: 3633541

Parameter	Units	50373871003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	1.4	10	10.8	94	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

QC Batch: 794197
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373951002, 50373951003, 50373951004, 50373951007, 50373951008

METHOD BLANK: 3633542 Matrix: Water
Associated Lab Samples: 50373951002, 50373951003, 50373951004, 50373951007, 50373951008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	06/07/24 10:26	

LABORATORY CONTROL SAMPLE: 3633543

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.5	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3633544 3633545

Parameter	Units	50373951004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	10	10	9.6	9.4	93	90	80-120	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3633546 3633547

Parameter	Units	50374033006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.6J	40	40	39.6	39.3	95	94	80-120	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Sample: MW-46A **Lab ID: 50373951001** Collected: 05/22/24 12:40 Received: 05/23/24 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.348 ± 0.809 (1.64) C:NA T:86%**	pCi/L	06/18/24 15:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.0749 ± 0.320 (0.729) C:85% T:83%**	pCi/L	06/13/24 11:34	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.0749 ± 1.13 (2.37)**	pCi/L	06/18/24 16:41	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Sample: MW-46I **Lab ID: 50373951002** Collected: 05/22/24 10:05 Received: 05/23/24 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.187 ± 0.562 (1.18) C:NA T:84%**	pCi/L	06/18/24 15:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.878 ± 0.396 (0.650) C:86% T:85%**	pCi/L	06/13/24 11:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.878 ± 0.958 (1.83)**	pCi/L	06/18/24 16:41	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Sample: MW-47A **Lab ID: 50373951003** Collected: 05/22/24 15:23 Received: 05/23/24 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0570 ± 0.580 (1.11) C:NA T:92%**	pCi/L	06/18/24 15:26	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.109 ± 0.317 (0.712) C:88% T:82%**	pCi/L	06/13/24 11:34	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.166 ± 0.897 (1.82)**	pCi/L	06/18/24 16:41	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Sample: MW-47I **Lab ID: 50373951004** Collected: 05/22/24 12:15 Received: 05/23/24 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.223 ± 0.382 (0.840) C:NA T:93%**	pCi/L	06/18/24 15:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.194 ± 0.278 (0.597) C:89% T:84%**	pCi/L	06/13/24 11:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.194 ± 0.660 (1.44)**	pCi/L	06/18/24 16:41	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Sample: MW-47I MS **Lab ID: 50373951005** Collected: 05/22/24 12:15 Received: 05/23/24 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**115.37 %REC ± NA (NA) C:NA T:NA**	pCi/L	06/18/24 15:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**86.64 %REC ± NA (NA) C:NA T:NA**	pCi/L	06/13/24 11:44	15262-20-1	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Sample: MW-47I MSD **Lab ID: 50373951006** Collected: 05/22/24 12:15 Received: 05/23/24 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**119.27 %REC 3.32RPD ± NA (NA) C:NA T:NA**	pCi/L	06/18/24 15:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**94.04 %REC 8.19RPD ± NA (NA) C:NA T:NA**	pCi/L	06/13/24 11:33	15262-20-1	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Sample: MW-47B **Lab ID: 50373951007** Collected: 05/22/24 15:05 Received: 05/23/24 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.321 ± 0.493 (1.08) C:NA T:101%**	pCi/L	06/18/24 15:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**-0.00749 ± 0.293 (0.685) C:89% T:87%**	pCi/L	06/13/24 11:34	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.000 ± 0.786 (1.77)**	pCi/L	06/18/24 16:41	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Sample: DUP-9 **Lab ID: 50373951008** Collected: 05/22/24 08:00 Received: 05/23/24 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.242 ± 0.650 (1.18) C:NA T:89%**	pCi/L	06/18/24 15:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.428 ± 0.331 (0.651) C:87% T:86%**	pCi/L	06/13/24 11:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.670 ± 0.981 (1.83)**	pCi/L	06/18/24 16:41	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

QC Batch: 672713
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50373951001, 50373951002, 50373951003, 50373951004, 50373951005, 50373951006, 50373951007, 50373951008

METHOD BLANK: 3275057 Matrix: Water
Associated Lab Samples: 50373951001, 50373951002, 50373951003, 50373951004, 50373951005, 50373951006, 50373951007, 50373951008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.173 ± 0.241 (0.402) C:NA T:93%	pCi/L	06/18/24 15:14	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

QC Batch: 672715
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50373951001, 50373951002, 50373951003, 50373951004, 50373951005, 50373951006, 50373951007, 50373951008

METHOD BLANK: 3275075 Matrix: Water
Associated Lab Samples: 50373951001, 50373951002, 50373951003, 50373951004, 50373951005, 50373951006, 50373951007, 50373951008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.456 ± 0.323 (0.621) C:85% T:87%	pCi/L	06/13/24 11:32	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

CU	The continuing calibration for this analyte is above laboratory acceptance limits. Analyte was not detected above the reporting limit in any of the associated samples.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50373951001	**MW-46A**	EPA 9056	793926		
50373951002	**MW-46I**	EPA 9056	793926		
50373951003	**MW-47A**	EPA 9056	793926		
50373951004	**MW-47I**	EPA 9056	793926		
50373951007	**MW-47B**	EPA 9056	793926		
50373951008	**DUP-9**	EPA 9056	793926		
50373951001	**MW-46A**	EPA 3010	792976	EPA 6010	793195
50373951002	**MW-46I**	EPA 3010	792976	EPA 6010	793195
50373951003	**MW-47A**	EPA 3010	792976	EPA 6010	793195
50373951004	**MW-47I**	EPA 3010	792976	EPA 6010	793195
50373951007	**MW-47B**	EPA 3010	792976	EPA 6010	793195
50373951008	**DUP-9**	EPA 3010	792976	EPA 6010	793195
50373951001	**MW-46A**	EPA 3010	793580	EPA 6010	793915
50373951002	**MW-46I**	EPA 3010	793580	EPA 6010	793915
50373951003	**MW-47A**	EPA 3010	793580	EPA 6010	793915
50373951004	**MW-47I**	EPA 3010	793580	EPA 6010	793915
50373951007	**MW-47B**	EPA 3010	793580	EPA 6010	793915
50373951008	**DUP-9**	EPA 3010	793580	EPA 6010	793915
50373951001	**MW-46A**	EPA 200.2	792874	EPA 6020	792958
50373951002	**MW-46I**	EPA 200.2	792874	EPA 6020	792958
50373951003	**MW-47A**	EPA 200.2	792874	EPA 6020	792958
50373951004	**MW-47I**	EPA 200.2	792874	EPA 6020	792958
50373951007	**MW-47B**	EPA 200.2	792874	EPA 6020	792958
50373951008	**DUP-9**	EPA 200.2	792874	EPA 6020	792958
50373951001	**MW-46A**	EPA 200.2	792788	EPA 6020	792957
50373951002	**MW-46I**	EPA 200.2	792788	EPA 6020	792957
50373951003	**MW-47A**	EPA 200.2	792788	EPA 6020	792957
50373951004	**MW-47I**	EPA 200.2	792788	EPA 6020	792957
50373951007	**MW-47B**	EPA 200.2	792788	EPA 6020	792957
50373951008	**DUP-9**	EPA 200.2	792788	EPA 6020	792957
50373951001	**MW-46A**	EPA 7470	793462	EPA 7470	794252
50373951002	**MW-46I**	EPA 7470	793462	EPA 7470	794252
50373951003	**MW-47A**	EPA 7470	793462	EPA 7470	794252
50373951004	**MW-47I**	EPA 7470	793462	EPA 7470	794252
50373951007	**MW-47B**	EPA 7470	793462	EPA 7470	794252
50373951008	**DUP-9**	EPA 7470	793462	EPA 7470	794252
50373951001	**MW-46A**	EPA 903.1	672713		
50373951002	**MW-46I**	EPA 903.1	672713		
50373951003	**MW-47A**	EPA 903.1	672713		
50373951004	**MW-47I**	EPA 903.1	672713		
50373951005	**MW-47I MS**	EPA 903.1	672713		
50373951006	**MW-47I MSD**	EPA 903.1	672713		
50373951007	**MW-47B**	EPA 903.1	672713		
50373951008	**DUP-9**	EPA 903.1	672713		
50373951001	**MW-46A**	EPA 904.0	672715		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50373951002	**MW-46I**	EPA 904.0	672715		
50373951003	**MW-47A**	EPA 904.0	672715		
50373951004	**MW-47I**	EPA 904.0	672715		
50373951005	**MW-47I MS**	EPA 904.0	672715		
50373951006	**MW-47I MSD**	EPA 904.0	672715		
50373951007	**MW-47B**	EPA 904.0	672715		
50373951008	**DUP-9**	EPA 904.0	672715		
50373951001	**MW-46A**	Total Radium Calculation	676701		
50373951002	**MW-46I**	Total Radium Calculation	676701		
50373951003	**MW-47A**	Total Radium Calculation	676701		
50373951004	**MW-47I**	Total Radium Calculation	676701		
50373951007	**MW-47B**	Total Radium Calculation	676701		
50373951008	**DUP-9**	Total Radium Calculation	676701		
50373951001	**MW-46A**	SM 2320B	793447		
50373951002	**MW-46I**	SM 2320B	793447		
50373951003	**MW-47A**	SM 2320B	793447		
50373951004	**MW-47I**	SM 2320B	793447		
50373951007	**MW-47B**	SM 2320B	793447		
50373951008	**DUP-9**	SM 2320B	793447		
50373951001	**MW-46A**	SM 2540C	792457		
50373951002	**MW-46I**	SM 2540C	792457		
50373951003	**MW-47A**	SM 2540C	792458		
50373951004	**MW-47I**	SM 2540C	792458		
50373951007	**MW-47B**	SM 2540C	792458		
50373951008	**DUP-9**	SM 2540C	792458		
50373951001	**MW-46A**	SM 4500-H+B	794006		
50373951002	**MW-46I**	SM 4500-H+B	794006		
50373951003	**MW-47A**	SM 4500-H+B	794006		
50373951004	**MW-47I**	SM 4500-H+B	794006		
50373951007	**MW-47B**	SM 4500-H+B	794006		
50373951008	**DUP-9**	SM 4500-H+B	794006		
50373951001	**MW-46A**	SM 4500-S2-D	792229		
50373951002	**MW-46I**	SM 4500-S2-D	792229		
50373951003	**MW-47A**	SM 4500-S2-D	792229		
50373951004	**MW-47I**	SM 4500-S2-D	792265		
50373951007	**MW-47B**	SM 4500-S2-D	792229		
50373951008	**DUP-9**	SM 4500-S2-D	792265		
50373951001	**MW-46A**	EPA 353.2	791823		
50373951002	**MW-46I**	EPA 353.2	791823		
50373951003	**MW-47A**	EPA 353.2	791825		
50373951004	**MW-47I**	EPA 353.2	791823		
50373951007	**MW-47B**	EPA 353.2	791824		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R4
Pace Project No.: 50373951

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50373951008	**DUP-9**	EPA 353.2	791757		
50373951001	**MW-46A**	EPA 365.1	793822	EPA 365.1	794318
50373951002	**MW-46I**	EPA 365.1	793822	EPA 365.1	794318
50373951003	**MW-47A**	EPA 365.1	793822	EPA 365.1	794318
50373951004	**MW-47I**	EPA 365.1	793822	EPA 365.1	794318
50373951007	**MW-47B**	EPA 365.1	793822	EPA 365.1	794318
50373951008	**DUP-9**	EPA 365.1	793822	EPA 365.1	794318
50373951001	**MW-46A**	SM 5310C	794196		
50373951002	**MW-46I**	SM 5310C	794197		
50373951003	**MW-47A**	SM 5310C	794197		
50373951004	**MW-47I**	SM 5310C	794197		
50373951007	**MW-47B**	SM 5310C	794197		
50373951008	**DUP-9**	SM 5310C	794197		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

WO# : 50373951

50373951

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page : Of
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:		
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:		
	Indianapolis, IN 46256			Address:		Regulatory Agency
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:		
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P4 May 2024	Pace Project Manager:		State / Location
Requested Due Date:		Project #:	P4R4	Pace Profile #:	10498/60	IN

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO3 Wet	(Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity,pH	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum	Residual Chlorine (Y/N)	
	Requested Analysis Filtered (Y/N)																					Y			Y			
1	MW-46A			5/22/24	1240				10	3	2	4		1														OC1
2	MW-46I				1005																							OC2
3	MW-47A				1523																							OC3
4	MW-47I				1215																							OC4, OC5, OC6
5	MW-47B				1505																							OC7
6	DUP-9				—																							OC8
7	MS 7				1215																							
8	MSD7				1215																							
9																												
10																												
11																												
12																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
* Metals: 6010 (B, Cd, Cr, Fe, Pb, Mo, Ca, Mg, Na, K, Li) (11)	Mohammed Bazlamit	5/22/24	1630	FedEx			0.6
3020 (Be, Mn, Co, As, Se, Sb, Ba, Tl) (8), 7470 (Hg)	FedEx	5-23-24	9:30		5-23-24	9:30	0.7
** Dissolved FF 6010 (B, Mo, Mg, K, Li) (5) FF 6020 (Al) (1)							0.8
Rad 226/2228 to Pace PA							

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Mohammed Bazlamit					
SIGNATURE of SAMPLER:		DATE Signed: 5/22/24				

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: RC 5-23-24 11:37

1. Courier: ☑ FED EX | UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT | OTHER _____

2. Custody Seal on Cooler/Box Present: ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. Thermometer: 1 2 3 4 5 6 7 8 A B C D E F G H

4. Cooler Temperature(s): 0.6/0.6 | 0.7/0.7 | 0.8/0.8 | (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material: | Bubble Wrap ☑ Bubble Bags | None | Other _____

6. Ice Type: ☑ Wet ☐ Blue ☐ None

7. Was the PM notified of out of temp cooler?: | Yes ☐ No
Cooler temp should be above freezing to 6°C

8. EZ Bottle Order? | Yes ☑ No

If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.**			
Short Hold Time Analysis (48 hours or less)? **Analysis:** NO_3	✓		**Circle:** HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	✓		
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A ✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Custody Signatures Present?	✓		Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Containers Intact?:	✓		Headspace Wisconsin Sulfide?			✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
			Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/ZnAc >9
1													1			2	1	2	1	1			1				WT	✓	✓		✓
2													1			1	1	1	1	1			1									
3													1			1	1	1	1	1			1									
4													3			6	3	6	3	3			3									
5													1			2	1	2	1	1			1									
6													1			1	1	1	1	1			1									
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

August 01, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 24, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis
7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50374129001	**MW-36A**	Water	05/23/24 12:55	05/24/24 09:40
50374129002	**MW-36I**	Water	05/23/24 10:45	05/24/24 09:40
50374129003	**MW-36B**	Water	05/23/24 10:30	05/24/24 09:40

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50374129001	**MW-36A**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	NWB	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	DMT	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	ZM	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50374129002	**MW-36I**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	NWB	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	DMT	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	ZM	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50374129003	**MW-36B**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	NWB	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	DMT	1	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	ZM	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50374129001	**MW-36A**					
EPA 9056	Chloride	8.9	mg/L	0.25	06/07/24 15:42	
EPA 9056	Sulfate	333	mg/L	2.5	06/07/24 16:00	
EPA 6010	Boron	1030	ug/L	100	06/07/24 13:13	
EPA 6010	Calcium	147000	ug/L	1000	06/07/24 13:13	
EPA 6010	Iron	5190	ug/L	100	06/07/24 13:13	
EPA 6010	Magnesium	42200	ug/L	1000	06/07/24 13:13	
EPA 6010	Potassium	1370	ug/L	1000	06/07/24 13:13	
EPA 6010	Sodium	7770	ug/L	1000	06/07/24 13:13	
EPA 6010	Boron, Dissolved	1090	ug/L	100	06/07/24 10:32	
EPA 6010	Magnesium, Dissolved	42900	ug/L	1000	06/07/24 10:32	
EPA 6010	Potassium, Dissolved	1540	ug/L	1000	06/07/24 10:32	
EPA 6020	Arsenic	1.2	ug/L	1.0	06/04/24 04:51	
EPA 6020	Barium	44.6	ug/L	1.0	06/04/24 04:51	
EPA 6020	Manganese	367	ug/L	2.0	06/04/24 10:13	
EPA 903.1	Radium-226	0.354 ± 0.370 (0.579) C:NA T:93%	pCi/L		06/17/24 15:54	
EPA 904.0	Radium-228	1.16 ± 0.524 (0.840) C:86% T:76%	pCi/L		06/04/24 15:04	
Total Radium Calculation	Total Radium	1.51 ± 0.894 (1.42)	pCi/L		06/17/24 17:19	
SM 2320B	Alkalinity, Total as CaCO3	236	mg/L	10.0	06/04/24 21:09	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	236	mg/L	10.0	06/04/24 21:09	
SM 2540C	Total Dissolved Solids	665	mg/L	10.0	05/30/24 10:18	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	06/10/24 12:38	H3
EPA 365.1	Phosphate as P04	0.47	mg/L	0.15	06/11/24 12:42	
50374129002	**MW-36I**					
EPA 9056	Chloride	7.6	mg/L	0.25	06/07/24 16:17	
EPA 9056	Sulfate	296	mg/L	2.5	06/07/24 16:35	
EPA 6010	Boron	896	ug/L	100	06/07/24 13:15	
EPA 6010	Calcium	143000	ug/L	1000	06/07/24 13:15	
EPA 6010	Iron	4460	ug/L	100	06/07/24 13:15	
EPA 6010	Magnesium	39600	ug/L	1000	06/07/24 13:15	
EPA 6010	Potassium	1530	ug/L	1000	06/07/24 13:15	
EPA 6010	Sodium	7550	ug/L	1000	06/07/24 13:15	
EPA 6010	Boron, Dissolved	965	ug/L	100	06/07/24 10:34	
EPA 6010	Magnesium, Dissolved	41200	ug/L	1000	06/07/24 10:34	
EPA 6010	Potassium, Dissolved	1580	ug/L	1000	06/07/24 10:34	
EPA 6020	Barium	63.6	ug/L	1.0	06/04/24 04:55	
EPA 6020	Manganese	748	ug/L	5.0	06/04/24 10:16	
EPA 903.1	Radium-226	0.215 ± 0.335 (0.580) C:NA T:88%	pCi/L		06/17/24 15:54	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50374129002	**MW-36I**					
EPA 904.0	Radium-228	0.433 ± 0.328 (0.628) C:85% T:82%	pCi/L		06/04/24 15:04	
Total Radium Calculation	Total Radium	0.648 ± 0.663 (1.21)	pCi/L		06/17/24 17:19	
SM 2320B	Alkalinity, Total as CaCO3	263	mg/L	10.0	06/04/24 21:09	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	263	mg/L	10.0	06/04/24 21:09	
SM 2540C	Total Dissolved Solids	644	mg/L	10.0	05/30/24 10:18	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	06/10/24 12:39	H3
EPA 365.1	Phosphate as P04	0.35	mg/L	0.15	06/11/24 12:42	
50374129003	**MW-36B**					
EPA 9056	Chloride	5.8	mg/L	0.25	06/07/24 16:52	
EPA 9056	Fluoride	0.11	mg/L	0.10	06/07/24 16:52	
EPA 9056	Sulfate	32.6	mg/L	0.25	06/07/24 16:52	
EPA 6010	Calcium	105000	ug/L	1000	06/07/24 13:17	
EPA 6010	Iron	133	ug/L	100	06/07/24 13:17	
EPA 6010	Magnesium	33400	ug/L	1000	06/07/24 13:17	
EPA 6010	Sodium	3390	ug/L	1000	06/07/24 13:17	
EPA 6010	Magnesium, Dissolved	34600	ug/L	1000	06/07/24 10:36	
EPA 6020	Barium	90.3	ug/L	1.0	06/04/24 04:58	
EPA 6020	Manganese	10.2	ug/L	1.0	06/04/24 04:58	
EPA 6020	Selenium	1.3	ug/L	1.0	06/04/24 04:58	
EPA 903.1	Radium-226	0.138 ± 0.325 (0.601) C:NA T:92%	pCi/L		06/17/24 15:54	
EPA 904.0	Radium-228	0.571 ± 0.367 (0.685) C:86% T:86%	pCi/L		06/04/24 15:04	
Total Radium Calculation	Total Radium	0.709 ± 0.692 (1.29)	pCi/L		06/17/24 17:19	
SM 2320B	Alkalinity, Total as CaCO3	373	mg/L	10.0	06/04/24 21:09	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	373	mg/L	10.0	06/04/24 21:09	
SM 2540C	Total Dissolved Solids	392	mg/L	10.0	05/30/24 10:19	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	06/10/24 12:39	H3
EPA 353.2	Nitrogen, Nitrate	4.2	mg/L	0.20	05/24/24 17:07	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

Sample: MW-36A **Lab ID: 50374129001** Collected: 05/23/24 12:55 Received: 05/24/24 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**8.9**	mg/L	0.25	0.067	1		06/07/24 15:42	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		06/07/24 15:42	16984-48-8	
Sulfate	**333**	mg/L	2.5	1.9	10		06/07/24 16:00	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**1030**	ug/L	100	6.2	1	06/05/24 08:20	06/07/24 13:13	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	06/05/24 08:20	06/07/24 13:13	7440-43-9	
Calcium	**147000**	ug/L	1000	67.7	1	06/05/24 08:20	06/07/24 13:13	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	06/05/24 08:20	06/07/24 13:13	7440-47-3	
Iron	**5190**	ug/L	100	30.0	1	06/05/24 08:20	06/07/24 13:13	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	06/05/24 08:20	06/07/24 13:13	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	06/05/24 08:20	06/07/24 13:13	7439-93-2	
Magnesium	**42200**	ug/L	1000	33.6	1	06/05/24 08:20	06/07/24 13:13	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	06/05/24 08:20	06/07/24 13:13	7439-98-7	
Potassium	**1370**	ug/L	1000	97.8	1	06/05/24 08:20	06/07/24 13:13	7440-09-7	
Sodium	**7770**	ug/L	1000	54.8	1	06/05/24 08:20	06/07/24 13:13	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1090**	ug/L	100	11.4	1	06/06/24 16:12	06/07/24 10:32	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	06/06/24 16:12	06/07/24 10:32	7439-93-2	
Magnesium, Dissolved	**42900**	ug/L	1000	32.8	1	06/06/24 16:12	06/07/24 10:32	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	06/06/24 16:12	06/07/24 10:32	7439-98-7	
Potassium, Dissolved	**1540**	ug/L	1000	120	1	06/06/24 16:12	06/07/24 10:32	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.044	1	06/03/24 15:29	06/04/24 04:51	7440-36-0	
Arsenic	**1.2**	ug/L	1.0	0.064	1	06/03/24 15:29	06/04/24 04:51	7440-38-2	
Barium	**44.6**	ug/L	1.0	0.067	1	06/03/24 15:29	06/04/24 04:51	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	06/03/24 15:29	06/04/24 11:32	7440-41-7	
Cobalt	ND	ug/L	1.0	0.024	1	06/03/24 15:29	06/04/24 04:51	7440-48-4	
Manganese	**367**	ug/L	2.0	0.086	2	06/03/24 15:29	06/04/24 10:13	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	06/03/24 15:29	06/04/24 04:51	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	06/03/24 15:29	06/04/24 04:51	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	06/04/24 14:57	06/05/24 10:20	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/07/24 13:58	06/09/24 19:19	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

Sample: MW-36A **Lab ID: 50374129001** Collected: 05/23/24 12:55 Received: 05/24/24 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**236**	mg/L	10.0	10.0	1		06/04/24 21:09		
Alkalinity,Bicarbonate (CaCO3)	**236**	mg/L	10.0	10.0	1		06/04/24 21:09		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/04/24 21:09		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**665**	mg/L	10.0	10.0	1		05/30/24 10:18		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		06/10/24 12:38		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/28/24 16:18	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/24/24 17:54	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.47**	mg/L	0.15	0.13	1	06/06/24 10:00	06/11/24 12:42		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.25	1		06/07/24 01:14		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

Sample: MW-36I **Lab ID: 50374129002** Collected: 05/23/24 10:45 Received: 05/24/24 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**7.6**	mg/L	0.25	0.067	1		06/07/24 16:17	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		06/07/24 16:17	16984-48-8	
Sulfate	**296**	mg/L	2.5	1.9	10		06/07/24 16:35	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**896**	ug/L	100	6.2	1	06/05/24 08:20	06/07/24 13:15	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	06/05/24 08:20	06/07/24 13:15	7440-43-9	
Calcium	**143000**	ug/L	1000	67.7	1	06/05/24 08:20	06/07/24 13:15	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	06/05/24 08:20	06/07/24 13:15	7440-47-3	
Iron	**4460**	ug/L	100	30.0	1	06/05/24 08:20	06/07/24 13:15	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	06/05/24 08:20	06/07/24 13:15	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	06/05/24 08:20	06/07/24 13:15	7439-93-2	
Magnesium	**39600**	ug/L	1000	33.6	1	06/05/24 08:20	06/07/24 13:15	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	06/05/24 08:20	06/07/24 13:15	7439-98-7	
Potassium	**1530**	ug/L	1000	97.8	1	06/05/24 08:20	06/07/24 13:15	7440-09-7	
Sodium	**7550**	ug/L	1000	54.8	1	06/05/24 08:20	06/07/24 13:15	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**965**	ug/L	100	11.4	1	06/06/24 16:12	06/07/24 10:34	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	06/06/24 16:12	06/07/24 10:34	7439-93-2	
Magnesium, Dissolved	**41200**	ug/L	1000	32.8	1	06/06/24 16:12	06/07/24 10:34	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	06/06/24 16:12	06/07/24 10:34	7439-98-7	
Potassium, Dissolved	**1580**	ug/L	1000	120	1	06/06/24 16:12	06/07/24 10:34	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.044	1	06/03/24 15:29	06/04/24 04:55	7440-36-0	
Arsenic	ND	ug/L	1.0	0.064	1	06/03/24 15:29	06/04/24 04:55	7440-38-2	
Barium	**63.6**	ug/L	1.0	0.067	1	06/03/24 15:29	06/04/24 04:55	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	06/03/24 15:29	06/04/24 11:39	7440-41-7	
Cobalt	ND	ug/L	1.0	0.024	1	06/03/24 15:29	06/04/24 04:55	7440-48-4	
Manganese	**748**	ug/L	5.0	0.22	5	06/03/24 15:29	06/04/24 10:16	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	06/03/24 15:29	06/04/24 04:55	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	06/03/24 15:29	06/04/24 04:55	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	06/04/24 14:57	06/05/24 10:24	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/07/24 13:58	06/09/24 19:29	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

Sample: MW-36I **Lab ID: 50374129002** Collected: 05/23/24 10:45 Received: 05/24/24 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**263**	mg/L	10.0	10.0	1		06/04/24 21:09		
Alkalinity,Bicarbonate (CaCO3)	**263**	mg/L	10.0	10.0	1		06/04/24 21:09		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/04/24 21:09		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**644**	mg/L	10.0	10.0	1		05/30/24 10:18		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		06/10/24 12:39		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/28/24 16:18	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		05/24/24 17:11	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.35**	mg/L	0.15	0.13	1	06/06/24 10:00	06/11/24 12:42		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.25	1		06/07/24 01:39		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

Sample: MW-36B **Lab ID: 50374129003** Collected: 05/23/24 10:30 Received: 05/24/24 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**5.8**	mg/L	0.25	0.067	1		06/07/24 16:52	16887-00-6	
Fluoride	**0.11**	mg/L	0.10	0.017	1		06/07/24 16:52	16984-48-8	
Sulfate	**32.6**	mg/L	0.25	0.19	1		06/07/24 16:52	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	ND	ug/L	100	6.2	1	06/05/24 08:20	06/07/24 13:17	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	06/05/24 08:20	06/07/24 13:17	7440-43-9	
Calcium	**105000**	ug/L	1000	67.7	1	06/05/24 08:20	06/07/24 13:17	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	06/05/24 08:20	06/07/24 13:17	7440-47-3	
Iron	**133**	ug/L	100	30.0	1	06/05/24 08:20	06/07/24 13:17	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	06/05/24 08:20	06/07/24 13:17	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	06/05/24 08:20	06/07/24 13:17	7439-93-2	
Magnesium	**33400**	ug/L	1000	33.6	1	06/05/24 08:20	06/07/24 13:17	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	06/05/24 08:20	06/07/24 13:17	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	06/05/24 08:20	06/07/24 13:17	7440-09-7	
Sodium	**3390**	ug/L	1000	54.8	1	06/05/24 08:20	06/07/24 13:17	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	ND	ug/L	100	11.4	1	06/06/24 16:12	06/07/24 10:36	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	06/06/24 16:12	06/07/24 10:36	7439-93-2	
Magnesium, Dissolved	**34600**	ug/L	1000	32.8	1	06/06/24 16:12	06/07/24 10:36	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	06/06/24 16:12	06/07/24 10:36	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	120	1	06/06/24 16:12	06/07/24 10:36	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.044	1	06/03/24 15:29	06/04/24 04:58	7440-36-0	
Arsenic	ND	ug/L	1.0	0.064	1	06/03/24 15:29	06/04/24 04:58	7440-38-2	
Barium	**90.3**	ug/L	1.0	0.067	1	06/03/24 15:29	06/04/24 04:58	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	06/03/24 15:29	06/04/24 11:47	7440-41-7	
Cobalt	ND	ug/L	1.0	0.024	1	06/03/24 15:29	06/04/24 04:58	7440-48-4	
Manganese	**10.2**	ug/L	1.0	0.043	1	06/03/24 15:29	06/04/24 04:58	7439-96-5	
Selenium	**1.3**	ug/L	1.0	0.23	1	06/03/24 15:29	06/04/24 04:58	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	06/03/24 15:29	06/04/24 04:58	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	06/04/24 14:57	06/05/24 10:35	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/07/24 13:58	06/09/24 19:31	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

Sample: MW-36B **Lab ID: 50374129003** Collected: 05/23/24 10:30 Received: 05/24/24 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**373**	mg/L	10.0	10.0	1		06/04/24 21:09		
Alkalinity,Bicarbonate (CaCO3)	**373**	mg/L	10.0	10.0	1		06/04/24 21:09		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/04/24 21:09		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**392**	mg/L	10.0	10.0	1		05/30/24 10:19		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		06/10/24 12:39		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/28/24 16:18	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**4.2**	mg/L	0.20	0.026	2		05/24/24 17:07	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	06/06/24 10:00	06/11/24 12:44		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.25	1		06/07/24 02:04		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

QC Batch: 794417
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374129001, 50374129002, 50374129003

METHOD BLANK: 3634602 Matrix: Water
Associated Lab Samples: 50374129001, 50374129002, 50374129003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	06/07/24 15:08	
Fluoride	mg/L	ND	0.10	0.017	06/07/24 15:08	
Sulfate	mg/L	ND	0.25	0.19	06/07/24 15:08	

LABORATORY CONTROL SAMPLE: 3634603

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	95	80-120	
Fluoride	mg/L	1	0.97	97	80-120	
Sulfate	mg/L	5	4.7	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3634604 3634605

Parameter	Units	50374210001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	252	250	250	482	480	92	91	80-120	1	15	
Fluoride	mg/L	0.36	1	1	1.3	1.3	98	98	80-120	0	15	
Sulfate	mg/L	72.8	50	50	118	118	91	90	80-120	1	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

QC Batch: 793918
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374129001, 50374129002, 50374129003

METHOD BLANK: 3632398 Matrix: Water
Associated Lab Samples: 50374129001, 50374129002, 50374129003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	06/09/24 18:32	

LABORATORY CONTROL SAMPLE: 3632399

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.1	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3632400 3632401

Parameter	Units	50374082002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.7	5.0	93	101	75-125	8	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

QC Batch: 793487
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374129001, 50374129002, 50374129003

METHOD BLANK: 3630695 Matrix: Water
Associated Lab Samples: 50374129001, 50374129002, 50374129003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	06/07/24 12:25	
Cadmium	ug/L	ND	2.0	0.60	06/07/24 12:25	
Calcium	ug/L	ND	1000	67.7	06/07/24 12:25	
Chromium	ug/L	ND	10.0	0.42	06/07/24 12:25	
Iron	ug/L	ND	100	30.0	06/07/24 12:25	
Lead	ug/L	ND	10.0	2.5	06/07/24 12:25	
Lithium	ug/L	ND	20.0	6.8	06/07/24 12:25	
Magnesium	ug/L	ND	1000	33.6	06/07/24 12:25	
Molybdenum	ug/L	ND	10.0	0.78	06/07/24 12:25	
Potassium	ug/L	ND	1000	97.8	06/07/24 12:25	
Sodium	ug/L	ND	1000	54.8	06/07/24 12:25	

LABORATORY CONTROL SAMPLE: 3630696

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	928	93	80-120	
Cadmium	ug/L	1000	934	93	80-120	
Calcium	ug/L	10000	9710	97	80-120	
Chromium	ug/L	1000	941	94	80-120	
Iron	ug/L	10000	9010	90	80-120	
Lead	ug/L	1000	939	94	80-120	
Lithium	ug/L	1000	948	95	80-120	
Magnesium	ug/L	10000	9450	94	80-120	
Molybdenum	ug/L	1000	960	96	80-120	
Potassium	ug/L	10000	9380	94	80-120	
Sodium	ug/L	10000	9280	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3630697 3630698

Parameter	Units	50374077001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	ND	1000	1000	957	940	95	93	75-125	2	20	
Cadmium	ug/L	ND	1000	1000	963	954	96	95	75-125	1	20	
Calcium	ug/L	ND	10000	10000	10000	9880	100	99	75-125	1	20	
Chromium	ug/L	ND	1000	1000	976	964	98	96	75-125	1	20	
Iron	ug/L	ND	10000	10000	9340	9240	93	92	75-125	1	20	
Lead	ug/L	ND	1000	1000	972	954	97	95	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3630697 3630698

Parameter	Units	50374077001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	ND	1000	1000	985	992	99	99	75-125	1	20	
Magnesium	ug/L	ND	10000	10000	9810	9640	98	96	75-125	2	20	
Molybdenum	ug/L	ND	1000	1000	988	984	99	98	75-125	0	20	
Potassium	ug/L	ND	10000	10000	9730	9730	97	97	75-125	0	20	
Sodium	ug/L	ND	10000	10000	9790	9740	96	96	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

QC Batch: 793779
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374129001, 50374129002, 50374129003

METHOD BLANK: 3632002 Matrix: Water
Associated Lab Samples: 50374129001, 50374129002, 50374129003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	11.4	06/07/24 09:50	
Lithium, Dissolved	ug/L	ND	20.0	5.1	06/07/24 09:50	
Magnesium, Dissolved	ug/L	ND	1000	32.8	06/07/24 09:50	
Molybdenum, Dissolved	ug/L	ND	10.0	1.1	06/07/24 09:50	
Potassium, Dissolved	ug/L	ND	1000	120	06/07/24 09:50	

LABORATORY CONTROL SAMPLE: 3632003

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	969	97	80-120	
Lithium, Dissolved	ug/L	1000	1010	101	80-120	
Magnesium, Dissolved	ug/L	10000	9930	99	80-120	
Molybdenum, Dissolved	ug/L	1000	1030	103	80-120	
Potassium, Dissolved	ug/L	10000	9970	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3632004 3632005

Parameter	Units	50374076001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	ND	1000	1000	929	987	91	97	75-125	6	20	
Lithium, Dissolved	ug/L	ND	1000	1000	934	992	93	99	75-125	6	20	
Magnesium, Dissolved	ug/L	25.2 mg/L	10000	10000	33200	34700	79	94	75-125	4	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	955	1010	95	101	75-125	6	20	
Potassium, Dissolved	ug/L	ND	10000	10000	9990	10600	93	99	75-125	6	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

QC Batch: 793167
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374129001, 50374129002, 50374129003

METHOD BLANK: 3629307 Matrix: Water
Associated Lab Samples: 50374129001, 50374129002, 50374129003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.044	06/04/24 03:14	
Arsenic	ug/L	ND	1.0	0.064	06/04/24 03:14	
Barium	ug/L	ND	1.0	0.067	06/04/24 03:14	
Beryllium	ug/L	ND	0.20	0.026	06/04/24 03:14	
Cobalt	ug/L	ND	1.0	0.024	06/04/24 03:14	
Manganese	ug/L	ND	1.0	0.043	06/04/24 03:14	
Selenium	ug/L	ND	1.0	0.23	06/04/24 03:14	
Thallium	ug/L	ND	1.0	0.042	06/04/24 03:14	

LABORATORY CONTROL SAMPLE: 3629308

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.2	105	80-120	
Arsenic	ug/L	40	37.2	93	80-120	
Barium	ug/L	40	39.0	97	80-120	
Beryllium	ug/L	40	39.1	98	80-120	
Cobalt	ug/L	40	39.5	99	80-120	
Manganese	ug/L	40	40.7	102	80-120	
Selenium	ug/L	40	38.6	97	80-120	
Thallium	ug/L	40	41.3	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3629309 3629310

Parameter	Units	50374019025 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	42.8	43.4	107	108	75-125	1	20	
Arsenic	ug/L	ND	40	40	37.7	37.4	93	93	75-125	1	20	
Barium	ug/L	105	40	40	143	143	94	95	75-125	0	20	
Beryllium	ug/L	ND	40	40	40.2	40.3	100	101	75-125	0	20	
Cobalt	ug/L	1.3	40	40	38.1	37.6	92	91	75-125	2	20	
Manganese	ug/L	189	40	40	227	224	94	87	75-125	1	20	
Selenium	ug/L	4.0	40	40	42.2	41.5	96	94	75-125	2	20	
Thallium	ug/L	ND	40	40	43.0	42.8	107	107	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

QC Batch: 793563
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374129001, 50374129002, 50374129003

METHOD BLANK: 3630905 Matrix: Water
Associated Lab Samples: 50374129001, 50374129002, 50374129003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	4.4	06/05/24 10:13	

LABORATORY CONTROL SAMPLE: 3630906

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	390	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3630907 3630908

Parameter	Units	50374354001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	<0.010 mg/L	400	400	396	391	98	97	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

QC Batch: 793746
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374129001, 50374129002, 50374129003

METHOD BLANK: 3631765 Matrix: Water
Associated Lab Samples: 50374129001, 50374129002, 50374129003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	06/04/24 21:09	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	06/04/24 21:09	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	06/04/24 21:09	

LABORATORY CONTROL SAMPLE: 3631766

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.4	105	90-110	

SAMPLE DUPLICATE: 3631767

Parameter	Units	50374074001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	288	293	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	288	293	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3631768

Parameter	Units	50374167001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	178	182	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	178	182	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	<10.0	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

QC Batch: 792725
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374129001, 50374129002, 50374129003

METHOD BLANK: 3627564 Matrix: Water
Associated Lab Samples: 50374129001, 50374129002, 50374129003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/30/24 10:16	

LABORATORY CONTROL SAMPLE: 3627565

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	266	89	80-120	

SAMPLE DUPLICATE: 3627566

Parameter	Units	50374124003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	333	340	2	10	

SAMPLE DUPLICATE: 3627567

Parameter	Units	50374173006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	3080	2950	4	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

QC Batch: 794739
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374129001, 50374129002, 50374129003

SAMPLE DUPLICATE: 3636410

Parameter	Units	50374090006 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.5	7.6	0	2	H3

SAMPLE DUPLICATE: 3636411

Parameter	Units	50374210001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.5	7.6	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

QC Batch: 792359
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374129001, 50374129002, 50374129003

METHOD BLANK: 3626234 Matrix: Water
Associated Lab Samples: 50374129001, 50374129002, 50374129003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/28/24 16:18	

LABORATORY CONTROL SAMPLE: 3626235

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3626236 3626237

Parameter	Units	50374033006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.40	0.39	79	77	90-110	3	20	M3

MATRIX SPIKE SAMPLE: 3626238

Parameter	Units	50374092008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.40	80	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

QC Batch: 791950
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374129002, 50374129003

METHOD BLANK: 3624225 Matrix: Water
Associated Lab Samples: 50374129002, 50374129003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/24/24 16:28	

LABORATORY CONTROL SAMPLE: 3624226

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.1	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3624227 3624228

Parameter	Units	50374070014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.1	1.1	107	108	90-110	0	20	

MATRIX SPIKE SAMPLE: 3624229

Parameter	Units	50374075001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.1	106	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

QC Batch: 791954
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374129001

METHOD BLANK: 3624245 Matrix: Water
Associated Lab Samples: 50374129001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/24/24 17:26	

LABORATORY CONTROL SAMPLE: 3624246

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.1	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3624247 3624248

Parameter	Units	50374070010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.1	1.1	106	106	90-110	1	20	

MATRIX SPIKE SAMPLE: 3624249

Parameter	Units	50374070018 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.1	108	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

QC Batch: 794098
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374129001, 50374129002, 50374129003

METHOD BLANK: 3633168 Matrix: Water
Associated Lab Samples: 50374129001, 50374129002, 50374129003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	06/11/24 12:37	

LABORATORY CONTROL SAMPLE: 3633169

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3633170 3633171

Parameter	Units	50374095001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	2.0			3.5	3.6				2		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

QC Batch: 794197
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374129001, 50374129002, 50374129003

METHOD BLANK: 3633542 Matrix: Water
Associated Lab Samples: 50374129001, 50374129002, 50374129003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	06/07/24 10:26	

LABORATORY CONTROL SAMPLE: 3633543

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.5	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3633544 3633545

Parameter	Units	50373951004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	10	10	9.6	9.4	93	90	80-120	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3633546 3633547

Parameter	Units	50374033006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.6J	40	40	39.6	39.3	95	94	80-120	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

Sample: MW-36A **Lab ID: 50374129001** Collected: 05/23/24 12:55 Received: 05/24/24 09:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.354 ± 0.370 (0.579) C:NA T:93%**	pCi/L	06/17/24 15:54	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.16 ± 0.524 (0.840) C:86% T:76%**	pCi/L	06/04/24 15:04	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.51 ± 0.894 (1.42)**	pCi/L	06/17/24 17:19	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

Sample: MW-36I **Lab ID: 50374129002** Collected: 05/23/24 10:45 Received: 05/24/24 09:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.215 ± 0.335 (0.580) C:NA T:88%**	pCi/L	06/17/24 15:54	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.433 ± 0.328 (0.628) C:85% T:82%**	pCi/L	06/04/24 15:04	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.648 ± 0.663 (1.21)**	pCi/L	06/17/24 17:19	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

Sample: MW-36B **Lab ID: 50374129003** Collected: 05/23/24 10:30 Received: 05/24/24 09:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.138 ± 0.325 (0.601) C:NA T:92%**	pCi/L	06/17/24 15:54	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.571 ± 0.367 (0.685) C:86% T:86%**	pCi/L	06/04/24 15:04	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.709 ± 0.692 (1.29)**	pCi/L	06/17/24 17:19	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

QC Batch: 671620
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50374129001, 50374129002, 50374129003

METHOD BLANK: 3270325 Matrix: Water
Associated Lab Samples: 50374129001, 50374129002, 50374129003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.116 ± 0.178 (0.466) C:NA T:88%	pCi/L	06/17/24 15:54	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

QC Batch: 671622
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50374129001, 50374129002, 50374129003

METHOD BLANK: 3270326 Matrix: Water
Associated Lab Samples: 50374129001, 50374129002, 50374129003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.605 ± 0.388 (0.718) C:83% T:81%	pCi/L	06/04/24 15:04	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50374129001	**MW-36A**	EPA 9056	794417		
50374129002	**MW-36I**	EPA 9056	794417		
50374129003	**MW-36B**	EPA 9056	794417		
50374129001	**MW-36A**	EPA 3010	793487	EPA 6010	794483
50374129002	**MW-36I**	EPA 3010	793487	EPA 6010	794483
50374129003	**MW-36B**	EPA 3010	793487	EPA 6010	794483
50374129001	**MW-36A**	EPA 3010	793779	EPA 6010	794419
50374129002	**MW-36I**	EPA 3010	793779	EPA 6010	794419
50374129003	**MW-36B**	EPA 3010	793779	EPA 6010	794419
50374129001	**MW-36A**	EPA 200.2	793167	EPA 6020	793503
50374129002	**MW-36I**	EPA 200.2	793167	EPA 6020	793503
50374129003	**MW-36B**	EPA 200.2	793167	EPA 6020	793503
50374129001	**MW-36A**	EPA 200.2	793563	EPA 6020	793781
50374129002	**MW-36I**	EPA 200.2	793563	EPA 6020	793781
50374129003	**MW-36B**	EPA 200.2	793563	EPA 6020	793781
50374129001	**MW-36A**	EPA 7470	793918	EPA 7470	794644
50374129002	**MW-36I**	EPA 7470	793918	EPA 7470	794644
50374129003	**MW-36B**	EPA 7470	793918	EPA 7470	794644
50374129001	**MW-36A**	EPA 903.1	671620		
50374129002	**MW-36I**	EPA 903.1	671620		
50374129003	**MW-36B**	EPA 903.1	671620		
50374129001	**MW-36A**	EPA 904.0	671622		
50374129002	**MW-36I**	EPA 904.0	671622		
50374129003	**MW-36B**	EPA 904.0	671622		
50374129001	**MW-36A**	Total Radium Calculation	676379		
50374129002	**MW-36I**	Total Radium Calculation	676379		
50374129003	**MW-36B**	Total Radium Calculation	676379		
50374129001	**MW-36A**	SM 2320B	793746		
50374129002	**MW-36I**	SM 2320B	793746		
50374129003	**MW-36B**	SM 2320B	793746		
50374129001	**MW-36A**	SM 2540C	792725		
50374129002	**MW-36I**	SM 2540C	792725		
50374129003	**MW-36B**	SM 2540C	792725		
50374129001	**MW-36A**	SM 4500-H+B	794739		
50374129002	**MW-36I**	SM 4500-H+B	794739		
50374129003	**MW-36B**	SM 4500-H+B	794739		
50374129001	**MW-36A**	SM 4500-S2-D	792359		
50374129002	**MW-36I**	SM 4500-S2-D	792359		
50374129003	**MW-36B**	SM 4500-S2-D	792359		
50374129001	**MW-36A**	EPA 353.2	791954		
50374129002	**MW-36I**	EPA 353.2	791950		
50374129003	**MW-36B**	EPA 353.2	791950		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R4
Pace Project No.: 50374129

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50374129001	**MW-36A**	EPA 365.1	794098	EPA 365.1	795056
50374129002	**MW-36I**	EPA 365.1	794098	EPA 365.1	795056
50374129003	**MW-36B**	EPA 365.1	794098	EPA 365.1	795056
50374129001	**MW-36A**	SM 5310C	794197		
50374129002	**MW-36I**	SM 5310C	794197		
50374129003	**MW-36B**	SM 5310C	794197		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

50374129

Page : Of

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P4 May 2024	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:	P4 R4	Pace Profile #:	10498/60

Regulatory Agency

State / Location: IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO3 Wet	(Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered** (Y)	Alkalinity,pH	DOC by 5310C	Sulfide (Y)	Phosphate	Rad-226/228 + Sum			Residual Chlorine (Y/N)	
1	MW-36A	WT	G	5/23	12:55				10	3	2	4		1				✓	✓	✓	✓	✓	✓		✓	✓				001
2	MW-36I	WT	G	↓	10:45				↓	↓	↓	↓		↓				✓	✓	✓	✓	✓	✓		✓	✓				002
3	MW-36B	WT	G	↓	10:30				↓	↓	↓	↓		↓				✓	✓	✓	✓	✓	✓		✓	✓				003
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Metals: 6010 (B, Cd, Cr, Fe, Pb, Mo, Ca, Mg, Na, K, Li) (11)	Jacob Rager	5/23/24	1:40	Fed Ex	5/23	140	1.5	Y	Y	Y
6020 (Be, Mn, Co, As, Se, Sb, Ba, Tl) (8), 7470 (Hg)	Fed Ex	5/24	940	Chilled B	5/24	940				
* Dissolved FF 6010 (B, Mo, Mg, K, Li) (5) FF 6020 (Al) (1)										
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Jacob Rager					
SIGNATURE of SAMPLER:		DATE Signed: 5-23-24				

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: CB 5/24/24 11:07

1. Courier: ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. Custody Seal on Cooler/Box Present: ☑ Yes ☐ No
(If yes)Seals Intact: ☑ Yes ☐ No (leave blank if no seals were present)
3. Thermometer: 1 2 3 4 5 6 7 8 A B C (D) E F G H
4. Cooler Temperature(s): 1.5/1.5
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____
6. Ice Type: ☑ Wet ☐ Blue ☐ None
7. Was the PM notified of out of temp cooler?: ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C
8. EZ Bottle Order? ☐ Yes ☑ No
If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.	✓		
Short Hold Time Analysis (48 hours or less)? Analysis: NO3	✓		Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form			
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 1215			Present	Absent	N/A
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Custody Signatures Present?	✓		Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Containers Intact?:	✓		Headspace Wisconsin Sulfide?			✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details			No VOA Vials Sent ✓
Extra labels on Terracore Vials? (soils only)		✓	Trip Blank Present?		✓	
			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC									OTHER							
			MeOH (only)																												
			SBS																												
			DI			VOA VIAL HS >6mm																										
COC Line Item	WGFU	WGKU BG1U	R	DG9H VG9H		VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1													1			2	1	2	1	1	1		1				WT				
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

July 24, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 P4R3
Pace Project No.: 50374203

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on May 24, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50374203

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50374203

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50374203001	**MW-20B**	Water	05/24/24 10:30	05/24/24 12:00
50374203002	**MW-20I**	Water	05/24/24 10:15	05/24/24 12:00

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R3
Pace Project No.: 50374203

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50374203001	**MW-20B**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	NWB	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	DMT	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50374203002	**MW-20I**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	NWB	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	DMT	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R3
Pace Project No.: 50374203

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50374203001	**MW-20B**					
EPA 9056	Chloride	16.2	mg/L	0.25	06/07/24 17:09	
EPA 9056	Sulfate	56.9	mg/L	2.5	06/07/24 17:27	
EPA 6010	Boron	468	ug/L	100	06/05/24 02:38	
EPA 6010	Calcium	166000	ug/L	1000	06/05/24 02:38	
EPA 6010	Magnesium	27200	ug/L	1000	06/05/24 02:38	
EPA 6010	Sodium	11500	ug/L	1000	06/05/24 02:38	
EPA 6010	Boron, Dissolved	468	ug/L	100	06/07/24 10:38	
EPA 6010	Magnesium, Dissolved	26300	ug/L	1000	06/07/24 10:38	
EPA 6020	Barium	100	ug/L	1.0	06/04/24 05:02	
EPA 6020	Manganese	2.0	ug/L	1.0	06/04/24 05:02	
EPA 6020	Selenium	9.4	ug/L	1.0	06/04/24 05:02	
EPA 903.1	Radium-226	-0.116 ± 0.508 (1.05) C:NA T:96%	pCi/L		06/18/24 16:04	
EPA 904.0	Radium-228	0.477 ± 0.465 (0.945) C:81% T:84%	pCi/L		06/13/24 19:27	
Total Radium Calculation	Total Radium	0.477 ± 0.973 (2.00)	pCi/L		06/18/24 17:24	
SM 2320B	Alkalinity, Total as CaCO3	470	mg/L	10.0	06/04/24 21:27	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	470	mg/L	10.0	06/04/24 21:27	
SM 2540C	Total Dissolved Solids	552	mg/L	10.0	05/31/24 07:46	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	06/10/24 12:41	H3
EPA 353.2	Nitrogen, Nitrate	3.9	mg/L	0.10	05/24/24 23:27	
SM 5310C	Dissolved Organic Carbon	1.1	mg/L	1.0	06/07/24 02:30	
50374203002	**MW-20I**					
EPA 9056	Chloride	8.9	mg/L	0.25	06/07/24 18:19	
EPA 9056	Sulfate	39.2	mg/L	0.25	06/07/24 18:19	
EPA 6010	Boron	284	ug/L	100	06/05/24 02:40	
EPA 6010	Calcium	121000	ug/L	1000	06/05/24 02:40	
EPA 6010	Magnesium	26600	ug/L	1000	06/05/24 02:40	
EPA 6010	Sodium	4850	ug/L	1000	06/05/24 02:40	
EPA 6010	Boron, Dissolved	264	ug/L	100	06/07/24 10:43	
EPA 6010	Magnesium, Dissolved	24200	ug/L	1000	06/07/24 10:43	
EPA 6020	Barium	47.1	ug/L	1.0	06/04/24 05:06	
EPA 6020	Cobalt	1.2	ug/L	1.0	06/04/24 05:06	
EPA 6020	Manganese	1650	ug/L	10.0	06/04/24 10:20	
EPA 6020	Selenium	3.5	ug/L	1.0	06/04/24 05:06	
EPA 903.1	Radium-226	0.376 ± 0.675 (1.18) C:NA T:91%	pCi/L		06/18/24 16:04	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R3
Pace Project No.: 50374203

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50374203002	**MW-20I**					
EPA 904.0	Radium-228	0.813 ± 0.507 (0.932) C:85% T:85%	pCi/L		06/13/24 19:27	
Total Radium Calculation	Total Radium	1.19 ± 1.18 (2.11)	pCi/L		06/18/24 17:24	
SM 2320B	Alkalinity, Total as CaCO3	353	mg/L	10.0	06/04/24 21:27	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	353	mg/L	10.0	06/04/24 21:27	
SM 2540C	Total Dissolved Solids	382	mg/L	10.0	05/31/24 07:46	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	06/10/24 12:41	H3
EPA 353.2	Nitrogen, Nitrate	1.2	mg/L	0.10	05/24/24 23:25	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50374203

Sample: MW-20B **Lab ID: 50374203001** Collected: 05/24/24 10:30 Received: 05/24/24 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**16.2**	mg/L	0.25	0.067	1		06/07/24 17:09	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		06/07/24 17:09	16984-48-8	
Sulfate	**56.9**	mg/L	2.5	1.9	10		06/07/24 17:27	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**468**	ug/L	100	6.2	1	06/04/24 08:20	06/05/24 02:38	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	06/04/24 08:20	06/05/24 02:38	7440-43-9	
Calcium	**166000**	ug/L	1000	67.7	1	06/04/24 08:20	06/05/24 02:38	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	06/04/24 08:20	06/05/24 02:38	7440-47-3	
Iron	ND	ug/L	100	30.0	1	06/04/24 08:20	06/05/24 02:38	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	06/04/24 08:20	06/05/24 02:38	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	06/04/24 08:20	06/05/24 02:38	7439-93-2	
Magnesium	**27200**	ug/L	1000	33.6	1	06/04/24 08:20	06/05/24 02:38	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	06/04/24 08:20	06/05/24 02:38	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	06/04/24 08:20	06/05/24 02:38	7440-09-7	
Sodium	**11500**	ug/L	1000	54.8	1	06/04/24 08:20	06/05/24 02:38	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**468**	ug/L	100	11.4	1	06/06/24 16:12	06/07/24 10:38	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	06/06/24 16:12	06/07/24 10:38	7439-93-2	
Magnesium, Dissolved	**26300**	ug/L	1000	32.8	1	06/06/24 16:12	06/07/24 10:38	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	06/06/24 16:12	06/07/24 10:38	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	120	1	06/06/24 16:12	06/07/24 10:38	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.044	1	06/03/24 15:29	06/04/24 05:02	7440-36-0	
Arsenic	ND	ug/L	1.0	0.064	1	06/03/24 15:29	06/04/24 05:02	7440-38-2	
Barium	**100**	ug/L	1.0	0.067	1	06/03/24 15:29	06/04/24 05:02	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	06/03/24 15:29	06/04/24 11:57	7440-41-7	
Cobalt	ND	ug/L	1.0	0.024	1	06/03/24 15:29	06/04/24 05:02	7440-48-4	
Manganese	**2.0**	ug/L	1.0	0.043	1	06/03/24 15:29	06/04/24 05:02	7439-96-5	
Selenium	**9.4**	ug/L	1.0	0.23	1	06/03/24 15:29	06/04/24 05:02	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	06/03/24 15:29	06/04/24 05:02	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	06/04/24 14:57	06/05/24 10:38	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/07/24 13:58	06/09/24 19:33	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50374203

Sample: MW-20B **Lab ID: 50374203001** Collected: 05/24/24 10:30 Received: 05/24/24 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**470**	mg/L	10.0	10.0	1		06/04/24 21:27		
Alkalinity,Bicarbonate (CaCO3)	**470**	mg/L	10.0	10.0	1		06/04/24 21:27		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/04/24 21:27		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**552**	mg/L	10.0	10.0	1		05/31/24 07:46		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		06/10/24 12:41		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/30/24 14:20	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**3.9**	mg/L	0.10	0.013	1		05/24/24 23:27	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	06/06/24 11:30	06/11/24 12:53		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.1**	mg/L	1.0	0.25	1		06/07/24 02:30		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50374203

Sample: MW-20I **Lab ID: 50374203002** Collected: 05/24/24 10:15 Received: 05/24/24 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**8.9**	mg/L	0.25	0.067	1		06/07/24 18:19	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		06/07/24 18:19	16984-48-8	
Sulfate	**39.2**	mg/L	0.25	0.19	1		06/07/24 18:19	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**284**	ug/L	100	6.2	1	06/04/24 08:20	06/05/24 02:40	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	06/04/24 08:20	06/05/24 02:40	7440-43-9	
Calcium	**121000**	ug/L	1000	67.7	1	06/04/24 08:20	06/05/24 02:40	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	06/04/24 08:20	06/05/24 02:40	7440-47-3	
Iron	ND	ug/L	100	30.0	1	06/04/24 08:20	06/05/24 02:40	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	06/04/24 08:20	06/05/24 02:40	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	06/04/24 08:20	06/05/24 02:40	7439-93-2	
Magnesium	**26600**	ug/L	1000	33.6	1	06/04/24 08:20	06/05/24 02:40	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	06/04/24 08:20	06/05/24 02:40	7439-98-7	
Potassium	ND	ug/L	1000	97.8	1	06/04/24 08:20	06/05/24 02:40	7440-09-7	
Sodium	**4850**	ug/L	1000	54.8	1	06/04/24 08:20	06/05/24 02:40	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**264**	ug/L	100	11.4	1	06/06/24 16:12	06/07/24 10:43	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	06/06/24 16:12	06/07/24 10:43	7439-93-2	
Magnesium, Dissolved	**24200**	ug/L	1000	32.8	1	06/06/24 16:12	06/07/24 10:43	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	06/06/24 16:12	06/07/24 10:43	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	120	1	06/06/24 16:12	06/07/24 10:43	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.044	1	06/03/24 15:29	06/04/24 05:06	7440-36-0	
Arsenic	ND	ug/L	1.0	0.064	1	06/03/24 15:29	06/04/24 05:06	7440-38-2	
Barium	**47.1**	ug/L	1.0	0.067	1	06/03/24 15:29	06/04/24 05:06	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	06/03/24 15:29	06/04/24 12:05	7440-41-7	
Cobalt	**1.2**	ug/L	1.0	0.024	1	06/03/24 15:29	06/04/24 05:06	7440-48-4	
Manganese	**1650**	ug/L	10.0	0.43	10	06/03/24 15:29	06/04/24 10:20	7439-96-5	
Selenium	**3.5**	ug/L	1.0	0.23	1	06/03/24 15:29	06/04/24 05:06	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	06/03/24 15:29	06/04/24 05:06	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	06/04/24 14:57	06/05/24 10:42	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/07/24 13:58	06/09/24 19:36	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50374203

Sample: MW-20I **Lab ID: 50374203002** Collected: 05/24/24 10:15 Received: 05/24/24 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**353**	mg/L	10.0	10.0	1		06/04/24 21:27		
Alkalinity,Bicarbonate (CaCO3)	**353**	mg/L	10.0	10.0	1		06/04/24 21:27		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/04/24 21:27		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**382**	mg/L	10.0	10.0	1		05/31/24 07:46		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.5**	Std. Units	0.10	0.10	1		06/10/24 12:41		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		05/30/24 14:20	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**1.2**	mg/L	0.10	0.013	1		05/24/24 23:25	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	06/06/24 11:30	06/11/24 12:54		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.25	1		06/07/24 02:55		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50374203

QC Batch: 794417
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374203001, 50374203002

METHOD BLANK: 3634602 Matrix: Water
Associated Lab Samples: 50374203001, 50374203002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	06/07/24 15:08	
Fluoride	mg/L	ND	0.10	0.017	06/07/24 15:08	
Sulfate	mg/L	ND	0.25	0.19	06/07/24 15:08	

LABORATORY CONTROL SAMPLE: 3634603

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	95	80-120	
Fluoride	mg/L	1	0.97	97	80-120	
Sulfate	mg/L	5	4.7	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3634604 3634605

Parameter	Units	50374210001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	252	250	250	482	480	92	91	80-120	1	15	
Fluoride	mg/L	0.36	1	1	1.3	1.3	98	98	80-120	0	15	
Sulfate	mg/L	72.8	50	50	118	118	91	90	80-120	1	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50374203

QC Batch: 793918
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374203001, 50374203002

METHOD BLANK: 3632398 Matrix: Water
Associated Lab Samples: 50374203001, 50374203002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	06/09/24 18:32	

LABORATORY CONTROL SAMPLE: 3632399

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.1	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3632400 3632401

Parameter	Units	50374082002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.7	5.0	93	101	75-125	8	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50374203

QC Batch: 793488
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374203001, 50374203002

METHOD BLANK: 3630699 Matrix: Water
Associated Lab Samples: 50374203001, 50374203002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	06/05/24 01:40	
Cadmium	ug/L	ND	2.0	0.60	06/05/24 01:40	
Calcium	ug/L	ND	1000	67.7	06/05/24 01:40	
Chromium	ug/L	ND	10.0	0.42	06/05/24 01:40	
Iron	ug/L	ND	100	30.0	06/05/24 01:40	
Lead	ug/L	ND	10.0	2.5	06/05/24 01:40	
Lithium	ug/L	ND	20.0	6.8	06/05/24 01:40	
Magnesium	ug/L	ND	1000	33.6	06/05/24 01:40	
Molybdenum	ug/L	ND	10.0	0.78	06/05/24 01:40	
Potassium	ug/L	ND	1000	97.8	06/05/24 01:40	
Sodium	ug/L	ND	1000	54.8	06/05/24 01:40	

LABORATORY CONTROL SAMPLE: 3630700

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	996	100	80-120	
Cadmium	ug/L	1000	991	99	80-120	
Calcium	ug/L	10000	9990	100	80-120	
Chromium	ug/L	1000	986	99	80-120	
Iron	ug/L	10000	10300	103	80-120	
Lead	ug/L	1000	985	98	80-120	
Lithium	ug/L	1000	1030	103	80-120	
Magnesium	ug/L	10000	10300	103	80-120	
Molybdenum	ug/L	1000	1060	106	80-120	
Potassium	ug/L	10000	9760	98	80-120	
Sodium	ug/L	10000	9720	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3630701 3630702

Parameter	Units	50374196007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	65.4J	1000	1000	1100	1070	103	100	75-125	3	20	
Cadmium	ug/L	ND	1000	1000	1010	977	101	98	75-125	4	20	
Calcium	ug/L	94000	10000	10000	103000	101000	88	74	75-125	1	20	P6
Chromium	ug/L	1.9J	1000	1000	1000	962	100	96	75-125	4	20	
Iron	ug/L	28400	10000	10000	38500	37600	101	93	75-125	2	20	
Lead	ug/L	ND	1000	1000	988	944	99	94	75-125	5	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50374203

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3630701 3630702

Parameter	Units	50374196007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	35.9	1000	1000	1090	1040	106	100	75-125	5	20	
Magnesium	ug/L	27100	10000	10000	37100	36400	100	93	75-125	2	20	
Molybdenum	ug/L	17.0	1000	1000	1100	1060	108	104	75-125	4	20	CH
Potassium	ug/L	7160	10000	10000	17400	16500	103	94	75-125	5	20	
Sodium	ug/L	24200	10000	10000	34300	33000	101	88	75-125	4	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50374203

QC Batch: 793779
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374203001, 50374203002

METHOD BLANK: 3632002 Matrix: Water
Associated Lab Samples: 50374203001, 50374203002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	11.4	06/07/24 09:50	
Lithium, Dissolved	ug/L	ND	20.0	5.1	06/07/24 09:50	
Magnesium, Dissolved	ug/L	ND	1000	32.8	06/07/24 09:50	
Molybdenum, Dissolved	ug/L	ND	10.0	1.1	06/07/24 09:50	
Potassium, Dissolved	ug/L	ND	1000	120	06/07/24 09:50	

LABORATORY CONTROL SAMPLE: 3632003

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	969	97	80-120	
Lithium, Dissolved	ug/L	1000	1010	101	80-120	
Magnesium, Dissolved	ug/L	10000	9930	99	80-120	
Molybdenum, Dissolved	ug/L	1000	1030	103	80-120	
Potassium, Dissolved	ug/L	10000	9970	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3632004 3632005

Parameter	Units	50374076001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	ND	1000	1000	929	987	91	97	75-125	6	20	
Lithium, Dissolved	ug/L	ND	1000	1000	934	992	93	99	75-125	6	20	
Magnesium, Dissolved	ug/L	25.2 mg/L	10000	10000	33200	34700	79	94	75-125	4	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	955	1010	95	101	75-125	6	20	
Potassium, Dissolved	ug/L	ND	10000	10000	9990	10600	93	99	75-125	6	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50374203

QC Batch: 793167
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374203001, 50374203002

METHOD BLANK: 3629307 Matrix: Water
Associated Lab Samples: 50374203001, 50374203002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.044	06/04/24 03:14	
Arsenic	ug/L	ND	1.0	0.064	06/04/24 03:14	
Barium	ug/L	ND	1.0	0.067	06/04/24 03:14	
Beryllium	ug/L	ND	0.20	0.026	06/04/24 03:14	
Cobalt	ug/L	ND	1.0	0.024	06/04/24 03:14	
Manganese	ug/L	ND	1.0	0.043	06/04/24 03:14	
Selenium	ug/L	ND	1.0	0.23	06/04/24 03:14	
Thallium	ug/L	ND	1.0	0.042	06/04/24 03:14	

LABORATORY CONTROL SAMPLE: 3629308

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.2	105	80-120	
Arsenic	ug/L	40	37.2	93	80-120	
Barium	ug/L	40	39.0	97	80-120	
Beryllium	ug/L	40	39.1	98	80-120	
Cobalt	ug/L	40	39.5	99	80-120	
Manganese	ug/L	40	40.7	102	80-120	
Selenium	ug/L	40	38.6	97	80-120	
Thallium	ug/L	40	41.3	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3629309 3629310

Parameter	Units	50374019025 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	42.8	43.4	107	108	75-125	1	20	
Arsenic	ug/L	ND	40	40	37.7	37.4	93	93	75-125	1	20	
Barium	ug/L	105	40	40	143	143	94	95	75-125	0	20	
Beryllium	ug/L	ND	40	40	40.2	40.3	100	101	75-125	0	20	
Cobalt	ug/L	1.3	40	40	38.1	37.6	92	91	75-125	2	20	
Manganese	ug/L	189	40	40	227	224	94	87	75-125	1	20	
Selenium	ug/L	4.0	40	40	42.2	41.5	96	94	75-125	2	20	
Thallium	ug/L	ND	40	40	43.0	42.8	107	107	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50374203

QC Batch: 793563
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374203001, 50374203002

METHOD BLANK: 3630905 Matrix: Water
Associated Lab Samples: 50374203001, 50374203002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	4.4	06/05/24 10:13	

LABORATORY CONTROL SAMPLE: 3630906

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	390	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3630907 3630908

Parameter	Units	50374354001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	<0.010 mg/L	400	400	396	391	98	97	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50374203

QC Batch: 793748
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374203001, 50374203002

METHOD BLANK: 3631777 Matrix: Water
Associated Lab Samples: 50374203001, 50374203002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	06/04/24 21:27	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	06/04/24 21:27	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	06/04/24 21:27	

LABORATORY CONTROL SAMPLE: 3631778

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	54.5	109	90-110	

SAMPLE DUPLICATE: 3631779

Parameter	Units	50374086003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	177	180	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	177	180	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3631780

Parameter	Units	50374144003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	7230	7280	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	6860	6900	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	368	380	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50374203

QC Batch: 792989
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374203001, 50374203002

METHOD BLANK: 3628598 Matrix: Water
Associated Lab Samples: 50374203001, 50374203002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/31/24 07:45	

LABORATORY CONTROL SAMPLE: 3628599

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	259	86	80-120	

SAMPLE DUPLICATE: 3628600

Parameter	Units	50374203002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	382	383	0	10	

SAMPLE DUPLICATE: 3628601

Parameter	Units	50374238001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	429	453	5	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50374203

QC Batch: 794739
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374203001, 50374203002

SAMPLE DUPLICATE: 3636410

Parameter	Units	50374090006 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.5	7.6	0	2	H3

SAMPLE DUPLICATE: 3636411

Parameter	Units	50374210001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.5	7.6	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50374203

QC Batch: 792844
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374203001, 50374203002

METHOD BLANK: 3628006 Matrix: Water
Associated Lab Samples: 50374203001, 50374203002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	05/30/24 14:20	

LABORATORY CONTROL SAMPLE: 3628007

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.48	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3628008 3628009

Parameter	Units	50374453006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	.07J	.069J	13	13	90-110		20	M3

MATRIX SPIKE SAMPLE: 3628010

Parameter	Units	50374203001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.30	58	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50374203

QC Batch: 792056
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374203001, 50374203002

METHOD BLANK: 3624891 Matrix: Water
Associated Lab Samples: 50374203001, 50374203002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	05/24/24 22:52	

LABORATORY CONTROL SAMPLE: 3624892

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3624893 3624894

Parameter	Units	50374164007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	1.2	1	1	2.2	2.2	109	109	90-110	0	20	

MATRIX SPIKE SAMPLE: 3624895

Parameter	Units	50374164004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.0	101	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50374203

QC Batch: 794099
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374203001, 50374203002

METHOD BLANK: 3633172 Matrix: Water
Associated Lab Samples: 50374203001, 50374203002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	06/11/24 12:47	

LABORATORY CONTROL SAMPLE: 3633173

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3633174 3633175

Parameter	Units	50374144003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	32.4			69.6	68.6				1		

MATRIX SPIKE SAMPLE: 3633176

Parameter	Units	50374203001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	ND		1.6			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R3
Pace Project No.: 50374203

QC Batch: 794197
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374203001, 50374203002

METHOD BLANK: 3633542 Matrix: Water
Associated Lab Samples: 50374203001, 50374203002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	06/07/24 10:26	

LABORATORY CONTROL SAMPLE: 3633543

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.5	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3633544 3633545

Parameter	Units	50373951004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	10	10	9.6	9.4	93	90	80-120	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3633546 3633547

Parameter	Units	50374033006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.6J	40	40	39.6	39.3	95	94	80-120	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50374203

Sample: MW-20B **Lab ID: 50374203001** Collected: 05/24/24 10:30 Received: 05/24/24 12:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.116 ± 0.508 (1.05) C:NA T:96%**	pCi/L	06/18/24 16:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.477 ± 0.465 (0.945) C:81% T:84%**	pCi/L	06/13/24 19:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.477 ± 0.973 (2.00)**	pCi/L	06/18/24 17:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50374203

Sample: MW-20I **Lab ID: 50374203002** Collected: 05/24/24 10:15 Received: 05/24/24 12:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.376 ± 0.675 (1.18) C:NA T:91%**	pCi/L	06/18/24 16:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.813 ± 0.507 (0.932) C:85% T:85%**	pCi/L	06/13/24 19:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.19 ± 1.18 (2.11)**	pCi/L	06/18/24 17:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50374203

QC Batch: 672982
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50374203001, 50374203002

METHOD BLANK: 3276137 Matrix: Water
Associated Lab Samples: 50374203001, 50374203002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.207 ± 0.353 (0.623) C:NA T:89%	pCi/L	06/18/24 15:51	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R3
Pace Project No.: 50374203

QC Batch: 672983
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50374203001, 50374203002

METHOD BLANK: 3276144 Matrix: Water
Associated Lab Samples: 50374203001, 50374203002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.165 ± 0.321 (0.706) C:83% T:83%	pCi/L	06/13/24 16:10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 P4R3
Pace Project No.: 50374203

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

CH	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R3
Pace Project No.: 50374203

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50374203001	**MW-20B**	EPA 9056	794417		
50374203002	**MW-20I**	EPA 9056	794417		
50374203001	**MW-20B**	EPA 3010	793488	EPA 6010	793790
50374203002	**MW-20I**	EPA 3010	793488	EPA 6010	793790
50374203001	**MW-20B**	EPA 3010	793779	EPA 6010	794419
50374203002	**MW-20I**	EPA 3010	793779	EPA 6010	794419
50374203001	**MW-20B**	EPA 200.2	793167	EPA 6020	793503
50374203002	**MW-20I**	EPA 200.2	793167	EPA 6020	793503
50374203001	**MW-20B**	EPA 200.2	793563	EPA 6020	793781
50374203002	**MW-20I**	EPA 200.2	793563	EPA 6020	793781
50374203001	**MW-20B**	EPA 7470	793918	EPA 7470	794644
50374203002	**MW-20I**	EPA 7470	793918	EPA 7470	794644
50374203001	**MW-20B**	EPA 903.1	672982		
50374203002	**MW-20I**	EPA 903.1	672982		
50374203001	**MW-20B**	EPA 904.0	672983		
50374203002	**MW-20I**	EPA 904.0	672983		
50374203001	**MW-20B**	Total Radium Calculation	676708		
50374203002	**MW-20I**	Total Radium Calculation	676708		
50374203001	**MW-20B**	SM 2320B	793748		
50374203002	**MW-20I**	SM 2320B	793748		
50374203001	**MW-20B**	SM 2540C	792989		
50374203002	**MW-20I**	SM 2540C	792989		
50374203001	**MW-20B**	SM 4500-H+B	794739		
50374203002	**MW-20I**	SM 4500-H+B	794739		
50374203001	**MW-20B**	SM 4500-S2-D	792844		
50374203002	**MW-20I**	SM 4500-S2-D	792844		
50374203001	**MW-20B**	EPA 353.2	792056		
50374203002	**MW-20I**	EPA 353.2	792056		
50374203001	**MW-20B**	EPA 365.1	794099	EPA 365.1	795058
50374203002	**MW-20I**	EPA 365.1	794099	EPA 365.1	795058
50374203001	**MW-20B**	SM 5310C	794197		
50374203002	**MW-20I**	SM 5310C	794197		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Ana

The Chain-of-Custody is a LEGAL DOCU

WO# : 50374203

50374203

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:			Of
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sec...		
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis		
	Indianapolis, IN 46256			Address:		Regulatory Agency	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:			
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P4 May 2024	Pace Project Manager:	Will Statz	State / Location	
Requested Due Date:		Project #:	P4R3	Pace Profile #:	10498/60		IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO3 Wet	(Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity,pH	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum				Residual Chlorine (Y/N)
																		Requested Analysis Filtered (Y/N)				Y			Y							
1	MW-20B	WT	G	5/24/24	1030				10	3	2	4		1																	
2	MW-20I	WT	G	5/24/24	1015				10	3	2	4		1																	
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Metals: 6010 (B, Cd, Cr, Fe, Pb, Mo, Ca, Mg, Na, K, Li) (11)	Mohammed Bazlamit	5/24/24	1200	PACE	5/24/24	1200	1.9	Y	N	Y
6020 (Be, Mn, Co, As, Se, Sb, Ba, Tl) (8), 7470 (Hg)										
* Dissolved FF 6010 (B, Mo, Mg, K, Li) (5) FF 6020 (Al) (1)										
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	Mohammed Bazlamit		
SIGNATURE of SAMPLER:		DATE Signed:	5/24/24

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: TW 5/24/24 1535

1. **Courier:** ☐FED EX | UPS ☑CLIENT ☐PACE ☐NOW/JETT | OTHER _____
2. **Custody Seal on Cooler/Box Present:** | | Yes ☑ No
   (If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B (C) D E F G H
4. **Cooler Temperature(s):** 1.4/1.4 | | | |
   (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ✓ Bubble Wrap ✓ Bubble Bags | | None | | Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **Was the PM notified of out of temp cooler?:** | | Yes ☐ No
   Cooler temp should be above freezing to 6°C
8. **EZ Bottle Order?** | Yes ✓ No
   If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis: ~~RAD's~~ NO3	✓	✗				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 1915		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A ✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE \ of \

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1												1				2	1	2	1	1	1		1				WT	✓	✓		✓
2												1				2	1	2	1	1	1		1				WT	✓	✓		✓
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

July 24, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on June 06, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis
7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50375179001	**MW-44B**	Water	06/05/24 11:40	06/06/24 09:15
50375179002	**MW-44I**	Water	06/05/24 13:50	06/06/24 09:15
50375179003	**MW-44A**	Water	06/05/24 13:40	06/06/24 09:15

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50375179001	**MW-44B**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	MTM	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50375179002	**MW-44I**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	MTM	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50375179003	**MW-44A**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	MTM	1	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50375179001	**MW-44B**					
EPA 9056	Chloride	101	mg/L	2.5	06/14/24 09:34	
EPA 9056	Fluoride	0.21	mg/L	0.10	06/14/24 09:17	
EPA 9056	Sulfate	204	mg/L	2.5	06/14/24 09:34	
EPA 6010	Boron	4430	ug/L	100	06/17/24 22:45	
EPA 6010	Calcium	189000	ug/L	1000	06/17/24 22:45	
EPA 6010	Iron	6200	ug/L	100	06/17/24 22:45	
EPA 6010	Magnesium	48500	ug/L	1000	06/17/24 22:45	
EPA 6010	Potassium	3080	ug/L	1000	06/17/24 22:45	
EPA 6010	Sodium	34100	ug/L	1000	06/17/24 22:45	
EPA 6010	Boron, Dissolved	4300	ug/L	100	06/19/24 22:59	
EPA 6010	Magnesium, Dissolved	46900	ug/L	1000	06/19/24 22:59	
EPA 6010	Potassium, Dissolved	2860	ug/L	1000	06/19/24 22:59	
EPA 6020	Arsenic	4.2	ug/L	1.0	06/12/24 09:55	
EPA 6020	Barium	149	ug/L	1.0	06/12/24 09:55	
EPA 6020	Manganese	1400	ug/L	10.0	06/12/24 09:35	
EPA 903.1	Radium-226	1.11 ± 0.778 (1.10) C:NA T:93%	pCi/L		06/27/24 15:55	
EPA 904.0	Radium-228	0.839 ± 0.388 (0.650) C:87% T:85%	pCi/L		06/26/24 12:32	
Total Radium Calculation	Total Radium	1.95 ± 1.17 (1.75)	pCi/L		06/28/24 13:54	
SM 2320B	Alkalinity, Total as CaCO3	396	mg/L	10.0	06/12/24 20:20	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	396	mg/L	10.0	06/12/24 20:20	
SM 2540C	Total Dissolved Solids	758	mg/L	20.0	06/12/24 11:11	
SM 4500-H+B	pH at 25 Degrees C	8.0	Std. Units	0.10	06/14/24 14:51	H3
EPA 365.1	Phosphate as P04	0.98	mg/L	0.15	06/19/24 20:49	
SM 5310C	Dissolved Organic Carbon	1.7	mg/L	1.0	06/17/24 20:50	
50375179002	**MW-44I**					
EPA 9056	Chloride	126	mg/L	2.5	06/14/24 10:07	
EPA 9056	Sulfate	264	mg/L	2.5	06/14/24 10:07	
EPA 6010	Boron	3060	ug/L	100	06/17/24 22:47	
EPA 6010	Calcium	243000	ug/L	2000	06/17/24 23:43	
EPA 6010	Iron	9250	ug/L	100	06/17/24 22:47	
EPA 6010	Magnesium	58600	ug/L	1000	06/17/24 22:47	
EPA 6010	Molybdenum	28.0	ug/L	10.0	06/17/24 22:47	
EPA 6010	Potassium	1990	ug/L	1000	06/17/24 22:47	
EPA 6010	Sodium	41100	ug/L	1000	06/17/24 22:47	
EPA 6010	Boron, Dissolved	2940	ug/L	100	06/19/24 23:01	
EPA 6010	Magnesium, Dissolved	55600	ug/L	1000	06/19/24 23:01	
EPA 6010	Molybdenum, Dissolved	28.1	ug/L	10.0	06/19/24 23:01	
EPA 6010	Potassium, Dissolved	1860	ug/L	1000	06/19/24 23:01	
EPA 6020	Arsenic	2.4	ug/L	1.0	06/12/24 09:59	
EPA 6020	Barium	74.0	ug/L	1.0	06/12/24 09:59	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50375179002	**MW-44I**					
EPA 6020	Manganese	1040	ug/L	10.0	06/12/24 22:28	
EPA 903.1	Radium-226	0.000 ± 0.764 (1.49) C:NA T:93%	pCi/L		06/27/24 16:11	
EPA 904.0	Radium-228	0.459 ± 0.311 (0.587) C:88% T:85%	pCi/L		06/26/24 12:32	
Total Radium Calculation	Total Radium	0.459 ± 1.08 (2.08)	pCi/L		06/28/24 13:54	
SM 2320B	Alkalinity, Total as CaCO3	273	mg/L	10.0	06/12/24 20:20	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	273	mg/L	10.0	06/12/24 20:20	
SM 2540C	Total Dissolved Solids	918	mg/L	20.0	06/12/24 11:11	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	06/14/24 15:06	H3
EPA 353.2	Nitrogen, Nitrate	0.63	mg/L	0.10	06/06/24 23:59	
EPA 365.1	Phosphate as P04	1.3	mg/L	0.15	06/19/24 20:49	
SM 5310C	Dissolved Organic Carbon	2.0	mg/L	1.0	06/17/24 21:16	
50375179003	**MW-44A**					
EPA 9056	Chloride	70.5	mg/L	2.5	06/14/24 10:57	
EPA 9056	Sulfate	435	mg/L	2.5	06/14/24 10:57	
EPA 6010	Boron	1650	ug/L	100	06/17/24 22:49	
EPA 6010	Calcium	254000	ug/L	2000	06/17/24 23:46	
EPA 6010	Iron	8650	ug/L	100	06/17/24 22:49	
EPA 6010	Magnesium	55400	ug/L	1000	06/17/24 22:49	
EPA 6010	Molybdenum	64.4	ug/L	10.0	06/17/24 22:49	
EPA 6010	Potassium	2530	ug/L	1000	06/17/24 22:49	
EPA 6010	Sodium	32900	ug/L	1000	06/17/24 22:49	
EPA 6010	Boron, Dissolved	1590	ug/L	100	06/19/24 23:03	
EPA 6010	Magnesium, Dissolved	53100	ug/L	1000	06/19/24 23:03	
EPA 6010	Molybdenum, Dissolved	62.6	ug/L	10.0	06/19/24 23:03	
EPA 6010	Potassium, Dissolved	2340	ug/L	1000	06/19/24 23:03	
EPA 6020	Arsenic	3.6	ug/L	1.0	06/12/24 10:03	
EPA 6020	Barium	37.1	ug/L	1.0	06/12/24 10:03	
EPA 6020	Manganese	891	ug/L	10.0	06/12/24 09:43	
EPA 903.1	Radium-226	0.356 ± 0.937 (1.67) C:NA T:95%	pCi/L		06/27/24 15:55	
EPA 904.0	Radium-228	0.401 ± 0.309 (0.602) C:82% T:87%	pCi/L		06/26/24 12:32	
Total Radium Calculation	Total Radium	0.757 ± 1.25 (2.27)	pCi/L		06/28/24 13:54	
SM 2320B	Alkalinity, Total as CaCO3	411	mg/L	10.0	06/12/24 20:20	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	411	mg/L	10.0	06/12/24 20:20	
SM 2540C	Total Dissolved Solids	1030	mg/L	20.0	06/12/24 11:11	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50375179003	**MW-44A**					
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	06/14/24 15:06	H3
EPA 365.1	Phosphate as P04	1.2	mg/L	0.15	06/19/24 20:50	
SM 5310C	Dissolved Organic Carbon	1.6	mg/L	1.0	06/17/24 21:42	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

Sample: MW-44B **Lab ID: 50375179001** Collected: 06/05/24 11:40 Received: 06/06/24 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**101**	mg/L	2.5	0.67	10		06/14/24 09:34	16887-00-6	
Fluoride	**0.21**	mg/L	0.10	0.017	1		06/14/24 09:17	16984-48-8	
Sulfate	**204**	mg/L	2.5	1.9	10		06/14/24 09:34	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**4430**	ug/L	100	6.2	1	06/15/24 08:32	06/17/24 22:45	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	06/15/24 08:32	06/17/24 22:45	7440-43-9	
Calcium	**189000**	ug/L	1000	67.7	1	06/15/24 08:32	06/17/24 22:45	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	06/15/24 08:32	06/17/24 22:45	7440-47-3	
Iron	**6200**	ug/L	100	30.0	1	06/15/24 08:32	06/17/24 22:45	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	06/15/24 08:32	06/17/24 22:45	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	06/15/24 08:32	06/17/24 22:45	7439-93-2	
Magnesium	**48500**	ug/L	1000	33.6	1	06/15/24 08:32	06/17/24 22:45	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	06/15/24 08:32	06/17/24 22:45	7439-98-7	
Potassium	**3080**	ug/L	1000	97.8	1	06/15/24 08:32	06/17/24 22:45	7440-09-7	
Sodium	**34100**	ug/L	1000	54.8	1	06/15/24 08:32	06/17/24 22:45	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**4300**	ug/L	100	6.2	1	06/18/24 07:57	06/19/24 22:59	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	06/18/24 07:57	06/19/24 22:59	7439-93-2	
Magnesium, Dissolved	**46900**	ug/L	1000	33.6	1	06/18/24 07:57	06/19/24 22:59	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	06/18/24 07:57	06/19/24 22:59	7439-98-7	
Potassium, Dissolved	**2860**	ug/L	1000	97.8	1	06/18/24 07:57	06/19/24 22:59	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	06/11/24 07:40	06/12/24 09:55	7440-36-0	
Arsenic	**4.2**	ug/L	1.0	0.10	1	06/11/24 07:40	06/12/24 09:55	7440-38-2	
Barium	**149**	ug/L	1.0	0.062	1	06/11/24 07:40	06/12/24 09:55	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	06/11/24 07:40	06/12/24 09:55	7440-41-7	
Cobalt	ND	ug/L	1.0	0.060	1	06/11/24 07:40	06/12/24 09:55	7440-48-4	
Manganese	**1400**	ug/L	10.0	1.5	10	06/11/24 07:40	06/12/24 09:35	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	06/11/24 07:40	06/12/24 09:55	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	06/11/24 07:40	06/12/24 09:55	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	06/11/24 07:40	06/12/24 23:00	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/17/24 10:00	06/17/24 21:08	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

Sample: MW-44B **Lab ID: 50375179001** Collected: 06/05/24 11:40 Received: 06/06/24 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**396**	mg/L	10.0	10.0	1		06/12/24 20:20		
Alkalinity,Bicarbonate (CaCO3)	**396**	mg/L	10.0	10.0	1		06/12/24 20:20		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/12/24 20:20		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**758**	mg/L	20.0	20.0	1		06/12/24 11:11		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**8.0**	Std. Units	0.10	0.10	1		06/14/24 14:51		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		06/11/24 15:56	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		06/06/24 23:45	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.98**	mg/L	0.15	0.13	1	06/19/24 11:00	06/19/24 20:49		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.7**	mg/L	1.0	0.25	1		06/17/24 20:50		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

Sample: MW-44I **Lab ID: 50375179002** Collected: 06/05/24 13:50 Received: 06/06/24 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**126**	mg/L	2.5	0.67	10		06/14/24 10:07	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		06/14/24 09:50	16984-48-8	
Sulfate	**264**	mg/L	2.5	1.9	10		06/14/24 10:07	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**3060**	ug/L	100	6.2	1	06/15/24 08:32	06/17/24 22:47	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	06/15/24 08:32	06/17/24 22:47	7440-43-9	
Calcium	**243000**	ug/L	2000	135	2	06/15/24 08:32	06/17/24 23:43	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	06/15/24 08:32	06/17/24 22:47	7440-47-3	
Iron	**9250**	ug/L	100	30.0	1	06/15/24 08:32	06/17/24 22:47	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	06/15/24 08:32	06/17/24 22:47	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	06/15/24 08:32	06/17/24 22:47	7439-93-2	
Magnesium	**58600**	ug/L	1000	33.6	1	06/15/24 08:32	06/17/24 22:47	7439-95-4	
Molybdenum	**28.0**	ug/L	10.0	0.78	1	06/15/24 08:32	06/17/24 22:47	7439-98-7	
Potassium	**1990**	ug/L	1000	97.8	1	06/15/24 08:32	06/17/24 22:47	7440-09-7	
Sodium	**41100**	ug/L	1000	54.8	1	06/15/24 08:32	06/17/24 22:47	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**2940**	ug/L	100	6.2	1	06/18/24 07:57	06/19/24 23:01	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	06/18/24 07:57	06/19/24 23:01	7439-93-2	
Magnesium, Dissolved	**55600**	ug/L	1000	33.6	1	06/18/24 07:57	06/19/24 23:01	7439-95-4	
Molybdenum, Dissolved	**28.1**	ug/L	10.0	0.78	1	06/18/24 07:57	06/19/24 23:01	7439-98-7	
Potassium, Dissolved	**1860**	ug/L	1000	97.8	1	06/18/24 07:57	06/19/24 23:01	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	06/11/24 07:40	06/12/24 09:59	7440-36-0	
Arsenic	**2.4**	ug/L	1.0	0.10	1	06/11/24 07:40	06/12/24 09:59	7440-38-2	
Barium	**74.0**	ug/L	1.0	0.062	1	06/11/24 07:40	06/12/24 09:59	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	06/11/24 07:40	06/12/24 09:59	7440-41-7	
Cobalt	ND	ug/L	1.0	0.060	1	06/11/24 07:40	06/12/24 09:59	7440-48-4	
Manganese	**1040**	ug/L	10.0	1.5	10	06/11/24 07:40	06/12/24 22:28	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	06/11/24 07:40	06/12/24 09:59	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	06/11/24 07:40	06/12/24 09:59	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	06/11/24 07:40	06/12/24 23:04	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/17/24 10:00	06/17/24 21:10	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

Sample: MW-44I **Lab ID: 50375179002** Collected: 06/05/24 13:50 Received: 06/06/24 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**273**	mg/L	10.0	10.0	1		06/12/24 20:20		
Alkalinity,Bicarbonate (CaCO3)	**273**	mg/L	10.0	10.0	1		06/12/24 20:20		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/12/24 20:20		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**918**	mg/L	20.0	20.0	1		06/12/24 11:11		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		06/14/24 15:06		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		06/11/24 15:56	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**0.63**	mg/L	0.10	0.013	1		06/06/24 23:59	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**1.3**	mg/L	0.15	0.13	1	06/19/24 11:00	06/19/24 20:49		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.0**	mg/L	1.0	0.25	1		06/17/24 21:16		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

Sample: MW-44A **Lab ID: 50375179003** Collected: 06/05/24 13:40 Received: 06/06/24 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**70.5**	mg/L	2.5	0.67	10		06/14/24 10:57	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		06/14/24 10:40	16984-48-8	
Sulfate	**435**	mg/L	2.5	1.9	10		06/14/24 10:57	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**1650**	ug/L	100	6.2	1	06/15/24 08:32	06/17/24 22:49	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	06/15/24 08:32	06/17/24 22:49	7440-43-9	
Calcium	**254000**	ug/L	2000	135	2	06/15/24 08:32	06/17/24 23:46	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	06/15/24 08:32	06/17/24 22:49	7440-47-3	
Iron	**8650**	ug/L	100	30.0	1	06/15/24 08:32	06/17/24 22:49	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	06/15/24 08:32	06/17/24 22:49	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	06/15/24 08:32	06/17/24 22:49	7439-93-2	
Magnesium	**55400**	ug/L	1000	33.6	1	06/15/24 08:32	06/17/24 22:49	7439-95-4	
Molybdenum	**64.4**	ug/L	10.0	0.78	1	06/15/24 08:32	06/17/24 22:49	7439-98-7	
Potassium	**2530**	ug/L	1000	97.8	1	06/15/24 08:32	06/17/24 22:49	7440-09-7	
Sodium	**32900**	ug/L	1000	54.8	1	06/15/24 08:32	06/17/24 22:49	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1590**	ug/L	100	6.2	1	06/18/24 07:57	06/19/24 23:03	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	06/18/24 07:57	06/19/24 23:03	7439-93-2	
Magnesium, Dissolved	**53100**	ug/L	1000	33.6	1	06/18/24 07:57	06/19/24 23:03	7439-95-4	
Molybdenum, Dissolved	**62.6**	ug/L	10.0	0.78	1	06/18/24 07:57	06/19/24 23:03	7439-98-7	
Potassium, Dissolved	**2340**	ug/L	1000	97.8	1	06/18/24 07:57	06/19/24 23:03	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	06/11/24 07:40	06/12/24 10:03	7440-36-0	
Arsenic	**3.6**	ug/L	1.0	0.10	1	06/11/24 07:40	06/12/24 10:03	7440-38-2	
Barium	**37.1**	ug/L	1.0	0.062	1	06/11/24 07:40	06/12/24 10:03	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	06/11/24 07:40	06/12/24 10:03	7440-41-7	
Cobalt	ND	ug/L	1.0	0.060	1	06/11/24 07:40	06/12/24 10:03	7440-48-4	
Manganese	**891**	ug/L	10.0	1.5	10	06/11/24 07:40	06/12/24 09:43	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	06/11/24 07:40	06/12/24 10:03	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	06/11/24 07:40	06/12/24 10:03	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	06/11/24 07:40	06/12/24 23:16	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/17/24 10:00	06/17/24 21:13	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

Sample: MW-44A **Lab ID: 50375179003** Collected: 06/05/24 13:40 Received: 06/06/24 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**411**	mg/L	10.0	10.0	1		06/12/24 20:20		
Alkalinity,Bicarbonate (CaCO3)	**411**	mg/L	10.0	10.0	1		06/12/24 20:20		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/12/24 20:20		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1030**	mg/L	20.0	20.0	1		06/12/24 11:11		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		06/14/24 15:06		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		06/11/24 15:56	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		06/06/24 23:58	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**1.2**	mg/L	0.15	0.13	1	06/19/24 11:00	06/19/24 20:50		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.6**	mg/L	1.0	0.25	1		06/17/24 21:42		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

QC Batch: 795009
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375179001, 50375179002, 50375179003

METHOD BLANK: 3637483 Matrix: Water
Associated Lab Samples: 50375179001, 50375179002, 50375179003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	06/14/24 14:22	
Fluoride	mg/L	ND	0.10	0.017	06/14/24 14:22	
Sulfate	mg/L	ND	0.25	0.19	06/14/24 14:22	

LABORATORY CONTROL SAMPLE: 3637484

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	92	80-120	
Fluoride	mg/L	1	0.97	97	80-120	
Sulfate	mg/L	5	4.8	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3637490 3637491

Parameter	Units	50375099001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	12.3	2.5	2.5	14.9	14.9	103	105	80-120	0	15	
Fluoride	mg/L	ND	1	1	1.0	1.0	100	100	80-120	0	15	
Sulfate	mg/L	16.3	5	5	21.4	21.4	101	101	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

QC Batch: 795680
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375179001, 50375179002, 50375179003

METHOD BLANK: 3640854 Matrix: Water
Associated Lab Samples: 50375179001, 50375179002, 50375179003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	06/17/24 20:16	

LABORATORY CONTROL SAMPLE: 3640855

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.6	91	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3640856 3640857

Parameter	Units	50374957005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.1	5.1	102	101	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

QC Batch: 795436
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375179001, 50375179002, 50375179003

METHOD BLANK: 3639639 Matrix: Water
Associated Lab Samples: 50375179001, 50375179002, 50375179003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	06/17/24 21:39	
Cadmium	ug/L	ND	2.0	0.60	06/17/24 21:39	
Calcium	ug/L	ND	1000	67.7	06/17/24 21:39	
Chromium	ug/L	ND	10.0	0.42	06/17/24 21:39	
Iron	ug/L	ND	100	30.0	06/17/24 21:39	
Lead	ug/L	ND	10.0	2.5	06/17/24 21:39	
Lithium	ug/L	ND	20.0	6.8	06/17/24 21:39	
Magnesium	ug/L	ND	1000	33.6	06/17/24 21:39	
Molybdenum	ug/L	ND	10.0	0.78	06/17/24 21:39	
Potassium	ug/L	ND	1000	97.8	06/17/24 21:39	
Sodium	ug/L	ND	1000	54.8	06/17/24 21:39	

LABORATORY CONTROL SAMPLE: 3639640

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	1010	101	80-120	
Cadmium	ug/L	1000	994	99	80-120	
Calcium	ug/L	10000	10500	105	80-120	
Chromium	ug/L	1000	1030	103	80-120	
Iron	ug/L	10000	10300	103	80-120	
Lead	ug/L	1000	989	99	80-120	
Lithium	ug/L	1000	1000	100	80-120	
Magnesium	ug/L	10000	10300	103	80-120	
Molybdenum	ug/L	1000	1020	102	80-120	
Potassium	ug/L	10000	9960	100	80-120	
Sodium	ug/L	10000	10000	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3639641 3639642

Parameter	Units	50374987001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	152	1000	1000	1190	1170	103	102	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	1010	1000	101	100	75-125	1	20	
Calcium	ug/L	27000	10000	10000	37800	36900	108	99	75-125	2	20	
Chromium	ug/L	ND	1000	1000	1030	1010	102	101	75-125	1	20	
Iron	ug/L	ND	10000	10000	10300	10100	102	101	75-125	1	20	
Lead	ug/L	ND	1000	1000	975	966	97	96	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3639641 3639642

Parameter	Units	50374987001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	ND	1000	1000	1010	1010	99	100	75-125	1	20	
Magnesium	ug/L	14000	10000	10000	24300	23800	103	98	75-125	2	20	
Molybdenum	ug/L	ND	1000	1000	1020	1020	102	101	75-125	1	20	
Potassium	ug/L	2320	10000	10000	12300	12500	100	102	75-125	2	20	
Sodium	ug/L	86500	10000	10000	97000	96000	105	94	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

QC Batch: 796015
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375179001, 50375179002, 50375179003

METHOD BLANK: 3642677 Matrix: Water
Associated Lab Samples: 50375179001, 50375179002, 50375179003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	06/19/24 22:31	
Lithium, Dissolved	ug/L	ND	20.0	6.8	06/19/24 22:31	
Magnesium, Dissolved	ug/L	ND	1000	33.6	06/19/24 22:31	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	06/19/24 22:31	
Potassium, Dissolved	ug/L	ND	1000	97.8	06/19/24 22:31	

LABORATORY CONTROL SAMPLE: 3642678

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	908	91	80-120	
Lithium, Dissolved	ug/L	1000	969	97	80-120	
Magnesium, Dissolved	ug/L	10000	9420	94	80-120	
Molybdenum, Dissolved	ug/L	1000	949	95	80-120	
Potassium, Dissolved	ug/L	10000	9530	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3642679 3642680

Parameter	Units	50375172003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	0.048 mg/L	1000	1000	1040	1040	99	100	75-125	1	20	
Lithium, Dissolved	ug/L	ND	1000	1000	1020	1000	101	99	75-125	2	20	
Magnesium, Dissolved	ug/L	34.9 mg/L	10000	10000	43800	43800	89	89	75-125	0	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1010	1010	101	101	75-125	0	20	
Potassium, Dissolved	ug/L	1.1 mg/L	10000	10000	11200	10900	101	98	75-125	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3642681 3642682

Parameter	Units	50375559001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	ND	1000	1000	1010	1010	99	99	75-125	0	20	
Lithium, Dissolved	ug/L	ND	1000	1000	1030	1000	103	100	75-125	3	20	
Magnesium, Dissolved	ug/L	10100	10000	10000	19700	19800	96	97	75-125	1	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1020	1020	102	101	75-125	1	20	
Potassium, Dissolved	ug/L	7710	10000	10000	18100	17600	104	99	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

QC Batch: 794823
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375179001, 50375179002, 50375179003

METHOD BLANK: 3636642 Matrix: Water
Associated Lab Samples: 50375179001, 50375179002, 50375179003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.26	06/12/24 07:04	
Arsenic	ug/L	ND	1.0	0.10	06/12/24 07:04	
Barium	ug/L	ND	1.0	0.062	06/12/24 07:04	
Beryllium	ug/L	ND	0.20	0.020	06/12/24 07:04	
Cobalt	ug/L	ND	1.0	0.060	06/12/24 07:04	
Manganese	ug/L	ND	1.0	0.15	06/12/24 07:04	
Selenium	ug/L	ND	1.0	0.36	06/12/24 07:04	
Thallium	ug/L	ND	1.0	0.079	06/12/24 07:04	

LABORATORY CONTROL SAMPLE: 3636643

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	41.5	104	80-120	
Arsenic	ug/L	40	39.4	99	80-120	
Barium	ug/L	40	38.3	96	80-120	
Beryllium	ug/L	40	39.6	99	80-120	
Cobalt	ug/L	40	40.8	102	80-120	
Manganese	ug/L	40	41.1	103	80-120	
Selenium	ug/L	40	40.4	101	80-120	
Thallium	ug/L	40	38.5	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3636644 3636645

Parameter	Units	50375098001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	38.6	39.7	96	99	75-125	3	20	
Arsenic	ug/L	0.00045J mg/L	40	40	39.4	39.9	97	99	75-125	1	20	
Barium	ug/L	0.11 mg/L	40	40	143	146	91	98	75-125	2	20	
Beryllium	ug/L	ND	40	40	39.4	40.7	98	102	75-125	3	20	
Cobalt	ug/L	0.00017J mg/L	40	40	38.7	39.3	96	98	75-125	2	20	
Manganese	ug/L	0.0088 mg/L	40	40	49.6	49.3	102	101	75-125	1	20	
Selenium	ug/L	ND	40	40	39.9	36.3	100	90	75-125	10	20	
Thallium	ug/L	ND	40	40	38.4	39.3	96	98	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

QC Batch: 794827
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375179001, 50375179002, 50375179003

METHOD BLANK: 3636657 Matrix: Water
Associated Lab Samples: 50375179001, 50375179002, 50375179003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.6	06/12/24 22:52	

LABORATORY CONTROL SAMPLE: 3636658

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	401	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3636659 3636660

Parameter	Units	50375256002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	389	398	97	99	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

QC Batch: 795389
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375179001, 50375179002, 50375179003

METHOD BLANK: 3639433 Matrix: Water
Associated Lab Samples: 50375179001, 50375179002, 50375179003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	06/12/24 20:20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	06/12/24 20:20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	06/12/24 20:20	

LABORATORY CONTROL SAMPLE: 3639434

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	53.3	107	90-110	

SAMPLE DUPLICATE: 3639435

Parameter	Units	50375172003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	408	415	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	408	415	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3639436

Parameter	Units	50375253002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	326	334	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	326	334	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

QC Batch: 795203
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375179001, 50375179002, 50375179003

METHOD BLANK: 3638312 Matrix: Water
Associated Lab Samples: 50375179001, 50375179002, 50375179003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	06/12/24 11:09	

LABORATORY CONTROL SAMPLE: 3638313

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	277	92	80-120	

SAMPLE DUPLICATE: 3638314

Parameter	Units	50375172009 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		10	PL

SAMPLE DUPLICATE: 3638315

Parameter	Units	50375198004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2420	2420	0	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

QC Batch: 795795
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375179001, 50375179002, 50375179003

SAMPLE DUPLICATE: 3641290

Parameter	Units	50375037003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.4	1	2	H3

SAMPLE DUPLICATE: 3641291

Parameter	Units	50375252002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.7	7.7	0	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

QC Batch: 795075
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375179001, 50375179002, 50375179003

METHOD BLANK: 3637848 Matrix: Water
Associated Lab Samples: 50375179001, 50375179002, 50375179003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	06/11/24 15:56	

LABORATORY CONTROL SAMPLE: 3637849

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.54	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3637850 3637851

Parameter	Units	50375179001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.34	0.31	64	59	90-110	7	20	M3

MATRIX SPIKE SAMPLE: 3637852

Parameter	Units	50375256002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.21	40	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

QC Batch: 794332
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375179001, 50375179002, 50375179003

METHOD BLANK: 3634356 Matrix: Water
Associated Lab Samples: 50375179001, 50375179002, 50375179003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	06/06/24 23:28	

LABORATORY CONTROL SAMPLE: 3634357

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3634358 3634359

Parameter	Units	50375172003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	3.8	5	5	8.8	8.9	100	101	90-110	1	20	

MATRIX SPIKE SAMPLE: 3634360

Parameter	Units	50375172005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	0.36	1	1.4	103	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

QC Batch: 796492
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375179001, 50375179002, 50375179003

METHOD BLANK: 3644427 Matrix: Water
Associated Lab Samples: 50375179001, 50375179002, 50375179003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	06/19/24 20:48	

LABORATORY CONTROL SAMPLE: 3644428

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3644429 3644430

Parameter	Units	50375787010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	1.1			2.6	2.6				2		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

QC Batch: 796033
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375179001, 50375179002, 50375179003

METHOD BLANK: 3642718 Matrix: Water
Associated Lab Samples: 50375179001, 50375179002, 50375179003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	06/17/24 14:20	

LABORATORY CONTROL SAMPLE: 3642719

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.5	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3642720 3642721

Parameter	Units	50375000007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.2	10	10	11.3	11.2	101	100	80-120	1	20	

MATRIX SPIKE SAMPLE: 3642722

Parameter	Units	50375284001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	1.3	10	10.9	96	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

Sample: MW-44B **Lab ID: 50375179001** Collected: 06/05/24 11:40 Received: 06/06/24 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.11 ± 0.778 (1.10) C:NA T:93%**	pCi/L	06/27/24 15:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.839 ± 0.388 (0.650) C:87% T:85%**	pCi/L	06/26/24 12:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.95 ± 1.17 (1.75)**	pCi/L	06/28/24 13:54	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

Sample: MW-44I **Lab ID: 50375179002** Collected: 06/05/24 13:50 Received: 06/06/24 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.000 ± 0.764 (1.49) C:NA T:93%**	pCi/L	06/27/24 16:11	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.459 ± 0.311 (0.587) C:88% T:85%**	pCi/L	06/26/24 12:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.459 ± 1.08 (2.08)**	pCi/L	06/28/24 13:54	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

Sample: MW-44A **Lab ID: 50375179003** Collected: 06/05/24 13:40 Received: 06/06/24 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.356 ± 0.937 (1.67) C:NA T:95%**	pCi/L	06/27/24 15:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.401 ± 0.309 (0.602) C:82% T:87%**	pCi/L	06/26/24 12:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.757 ± 1.25 (2.27)**	pCi/L	06/28/24 13:54	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

QC Batch: 675254
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50375179001, 50375179002, 50375179003

METHOD BLANK: 3287812
Matrix: Water
Associated Lab Samples: 50375179001, 50375179002, 50375179003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0576 ± 0.263 (0.156) C:NA T:89%	pCi/L	06/27/24 16:41	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

QC Batch: 675256
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50375179001, 50375179002, 50375179003

METHOD BLANK: 3287815
Matrix: Water
Associated Lab Samples: 50375179001, 50375179002, 50375179003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.531 ± 0.306 (0.546) C:85% T:93%	pCi/L	06/26/24 12:30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
PL	The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50375179001	**MW-44B**	EPA 9056	795009		
50375179002	**MW-44I**	EPA 9056	795009		
50375179003	**MW-44A**	EPA 9056	795009		
50375179001	**MW-44B**	EPA 3010	795436	EPA 6010	796174
50375179002	**MW-44I**	EPA 3010	795436	EPA 6010	796174
50375179003	**MW-44A**	EPA 3010	795436	EPA 6010	796174
50375179001	**MW-44B**	EPA 3010	796015	EPA 6010	796717
50375179002	**MW-44I**	EPA 3010	796015	EPA 6010	796717
50375179003	**MW-44A**	EPA 3010	796015	EPA 6010	796717
50375179001	**MW-44B**	EPA 200.2	794823	EPA 6020	795129
50375179002	**MW-44I**	EPA 200.2	794823	EPA 6020	795129
50375179003	**MW-44A**	EPA 200.2	794823	EPA 6020	795129
50375179001	**MW-44B**	EPA 200.2	794827	EPA 6020	795132
50375179002	**MW-44I**	EPA 200.2	794827	EPA 6020	795132
50375179003	**MW-44A**	EPA 200.2	794827	EPA 6020	795132
50375179001	**MW-44B**	EPA 7470	795680	EPA 7470	796159
50375179002	**MW-44I**	EPA 7470	795680	EPA 7470	796159
50375179003	**MW-44A**	EPA 7470	795680	EPA 7470	796159
50375179001	**MW-44B**	EPA 903.1	675254		
50375179002	**MW-44I**	EPA 903.1	675254		
50375179003	**MW-44A**	EPA 903.1	675254		
50375179001	**MW-44B**	EPA 904.0	675256		
50375179002	**MW-44I**	EPA 904.0	675256		
50375179003	**MW-44A**	EPA 904.0	675256		
50375179001	**MW-44B**	Total Radium Calculation	679219		
50375179002	**MW-44I**	Total Radium Calculation	679219		
50375179003	**MW-44A**	Total Radium Calculation	679219		
50375179001	**MW-44B**	SM 2320B	795389		
50375179002	**MW-44I**	SM 2320B	795389		
50375179003	**MW-44A**	SM 2320B	795389		
50375179001	**MW-44B**	SM 2540C	795203		
50375179002	**MW-44I**	SM 2540C	795203		
50375179003	**MW-44A**	SM 2540C	795203		
50375179001	**MW-44B**	SM 4500-H+B	795795		
50375179002	**MW-44I**	SM 4500-H+B	795795		
50375179003	**MW-44A**	SM 4500-H+B	795795		
50375179001	**MW-44B**	SM 4500-S2-D	795075		
50375179002	**MW-44I**	SM 4500-S2-D	795075		
50375179003	**MW-44A**	SM 4500-S2-D	795075		
50375179001	**MW-44B**	EPA 353.2	794332		
50375179002	**MW-44I**	EPA 353.2	794332		
50375179003	**MW-44A**	EPA 353.2	794332		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 Profile 4
Pace Project No.: 50375179

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50375179001	**MW-44B**	EPA 365.1	796492	EPA 365.1	796710
50375179002	**MW-44I**	EPA 365.1	796492	EPA 365.1	796710
50375179003	**MW-44A**	EPA 365.1	796492	EPA 365.1	796710
50375179001	**MW-44B**	SM 5310C	796033		
50375179002	**MW-44I**	SM 5310C	796033		
50375179003	**MW-44A**	SM 5310C	796033		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request D

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields m

WO# : 50375179

50375179

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P4 May 2024	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:		Pace Profile #:	10498/60

Regulatory Agency	
State / Location	IN

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Y/N	Analyses Test: TDS/ NO3 Wet	(Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity,pH	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum			Residual Chlorine (Y/N)	
	MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS																						Y			Y					
1	MW-44B	WT	G			6-5	1140		10	X	X	X		X	X				X	X	X	X	X	X	X	X	X			001	
2	MW-44I	WT	G			6-5	1350		10																					002	
3	MW-44A	WT	G			6-5	1340		10																					003	
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Metals: 6010 (B, Cd, Cr, Fe, Pb, Mo, Ca, Mg, Na, K, Li) (11)	Hayley Tolles	6-5-24	1600	Fedex	6-5-24	1600				
6020 (Be, Mn, Co, As, Se, Sb, Ba, Tl) (8), 7470 (Hg)	Fedex	6/6/24	915	PACE	6/6/24	915	2-1	Y	Y	Y
* Dissolved FF 6010 (B, Mo, Mg, K, Li) (5) FF 6020 (Al) (1)										
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	Hayley Tolles	TEMP in C	
SIGNATURE of SAMPLER:		Received on Ice (Y/N)	
DATE Signed:	6-5-24	Custody Sealed Cooler (Y/N)	
		Samples Intact (Y/N)	

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: TW 6/6/24 1245

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H
4. **Cooler Temperature(s):** 2.3/2.1 | | | |
   (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)
5. **Packing Material:** ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **Was the PM notified of out of temp cooler?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C
8. **EZ Bottle Order?** ☐ Yes ☑ No
   If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis: NO3	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 19:25		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A ✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 **of** 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1													1			2	1	2	1	1	1		1					WT	✓	✓		✓
2													↓			↓	↓	↓	↓	↓	↓		↓					↓	↓	↓		↓
3													↓			↓	↓	↓	↓	↓	↓		↓					↓	↓	↓		↓
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

F-IN-Q-270-rev.18, 26Jun2023

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

July 24, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 P4
Pace Project No.: 50375256

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on June 07, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50375256001	**MW-43A**	Water	06/06/24 14:27	06/07/24 09:30
50375256002	**MW-43I**	Water	06/06/24 13:50	06/07/24 09:30
50375256003	**MW-43B**	Water	06/06/24 12:34	06/07/24 09:30

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50375256001	**MW-43A**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	MTM	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	DMC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50375256002	**MW-43I**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	MTM	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	DMC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50375256003	**MW-43B**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	MTM	1	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	DMC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50375256001	**MW-43A**					
EPA 9056	Chloride	93.2	mg/L	2.5	06/14/24 16:03	
EPA 9056	Fluoride	0.11	mg/L	0.10	06/14/24 15:46	
EPA 9056	Sulfate	983	mg/L	25.0	06/14/24 16:20	
EPA 6010	Boron	9050	ug/L	100	06/18/24 23:56	
EPA 6010	Calcium	425000	ug/L	5000	06/19/24 00:05	
EPA 6010	Iron	6750	ug/L	100	06/18/24 23:56	
EPA 6010	Magnesium	31400	ug/L	1000	06/18/24 23:56	
EPA 6010	Molybdenum	289	ug/L	10.0	06/18/24 23:56	
EPA 6010	Potassium	17100	ug/L	1000	06/18/24 23:56	
EPA 6010	Sodium	55300	ug/L	1000	06/18/24 23:56	
EPA 6010	Boron, Dissolved	9020	ug/L	100	06/19/24 23:05	
EPA 6010	Magnesium, Dissolved	31200	ug/L	1000	06/19/24 23:05	
EPA 6010	Molybdenum, Dissolved	288	ug/L	10.0	06/19/24 23:05	
EPA 6010	Potassium, Dissolved	17100	ug/L	1000	06/19/24 23:05	
EPA 6020	Arsenic	1.9	ug/L	1.0	06/12/24 07:56	
EPA 6020	Barium	28.4	ug/L	1.0	06/12/24 07:56	
EPA 6020	Manganese	1200	ug/L	10.0	06/12/24 22:32	
EPA 903.1	Radium-226	0.639 ± 0.565 (0.837) C:NA T:94%	pCi/L		06/27/24 15:22	
EPA 904.0	Radium-228	0.803 ± 0.405 (0.695) C:86% T:82%	pCi/L		06/26/24 14:43	
Total Radium Calculation	Total Radium	1.44 ± 0.970 (1.53)	pCi/L		07/02/24 17:16	
SM 2320B	Alkalinity, Total as CaCO3	209	mg/L	10.0	06/12/24 22:11	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	209	mg/L	10.0	06/12/24 22:11	
SM 2540C	Total Dissolved Solids	1730	mg/L	20.0	06/12/24 11:30	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	06/14/24 15:56	H3
EPA 365.1	Phosphate as P04	0.62	mg/L	0.15	06/21/24 08:53	
SM 5310C	Dissolved Organic Carbon	1.7	mg/L	1.0	06/17/24 22:01	
50375256002	**MW-43I**					
EPA 9056	Chloride	61.4	mg/L	2.5	06/14/24 17:01	
EPA 9056	Sulfate	409	mg/L	2.5	06/14/24 17:01	
EPA 6010	Boron	1710	ug/L	100	06/18/24 23:58	
EPA 6010	Calcium	237000	ug/L	2000	06/19/24 00:06	
EPA 6010	Iron	7200	ug/L	100	06/18/24 23:58	
EPA 6010	Magnesium	49200	ug/L	1000	06/18/24 23:58	
EPA 6010	Molybdenum	109	ug/L	10.0	06/18/24 23:58	
EPA 6010	Potassium	4470	ug/L	1000	06/18/24 23:58	
EPA 6010	Sodium	37600	ug/L	1000	06/18/24 23:58	
EPA 6010	Boron, Dissolved	1700	ug/L	100	06/19/24 23:06	
EPA 6010	Magnesium, Dissolved	48600	ug/L	1000	06/19/24 23:06	
EPA 6010	Molybdenum, Dissolved	107	ug/L	10.0	06/19/24 23:06	
EPA 6010	Potassium, Dissolved	4470	ug/L	1000	06/19/24 23:06	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50375256002	**MW-43I**					
EPA 6020	Manganese	1640	ug/L	10.0	06/12/24 22:36	
EPA 6020	Arsenic	4.3	ug/L	1.0	06/12/24 08:00	
EPA 6020	Barium	58.3	ug/L	1.0	06/12/24 08:00	
EPA 903.1	Radium-226	0.428 ± 0.807 (1.43) C:NA T:93%	pCi/L		07/02/24 13:19	
EPA 904.0	Radium-228	1.55 ± 0.553 (0.768) C:83% T:88%	pCi/L		06/26/24 14:42	
Total Radium Calculation	Total Radium	1.98 ± 1.36 (2.20)	pCi/L		07/02/24 17:16	
SM 2320B	Alkalinity, Total as CaCO3	422	mg/L	10.0	06/12/24 22:11	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	422	mg/L	10.0	06/12/24 22:11	
SM 2540C	Total Dissolved Solids	978	mg/L	20.0	06/12/24 11:30	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	06/14/24 15:57	H3
EPA 365.1	Phosphate as P04	0.55	mg/L	0.15	06/21/24 08:56	
SM 5310C	Dissolved Organic Carbon	1.7	mg/L	1.0	06/17/24 23:06	
50375256003	**MW-43B**					
EPA 9056	Chloride	23.2	mg/L	2.5	06/14/24 17:50	
EPA 9056	Sulfate	113	mg/L	2.5	06/14/24 17:50	
EPA 6010	Boron	931	ug/L	100	06/19/24 00:00	
EPA 6010	Calcium	161000	ug/L	1000	06/19/24 00:00	
EPA 6010	Iron	120	ug/L	100	06/19/24 00:00	
EPA 6010	Magnesium	33700	ug/L	1000	06/19/24 00:00	
EPA 6010	Potassium	1320	ug/L	1000	06/19/24 00:00	
EPA 6010	Sodium	12100	ug/L	1000	06/19/24 00:00	
EPA 6010	Boron, Dissolved	917	ug/L	100	06/19/24 23:08	
EPA 6010	Magnesium, Dissolved	33000	ug/L	1000	06/19/24 23:08	
EPA 6010	Potassium, Dissolved	1310	ug/L	1000	06/19/24 23:08	
EPA 6020	Barium	51.9	ug/L	1.0	06/12/24 08:04	
EPA 6020	Cobalt	1.6	ug/L	1.0	06/12/24 08:04	
EPA 6020	Manganese	996	ug/L	10.0	06/12/24 22:40	
EPA 6020	Selenium	22.0	ug/L	1.0	06/12/24 08:04	
EPA 903.1	Radium-226	-0.604 ± 0.652 (1.42) C:NA T:96%	pCi/L		06/27/24 15:22	
EPA 904.0	Radium-228	0.749 ± 0.371 (0.616) C:82% T:87%	pCi/L		06/26/24 14:42	
Total Radium Calculation	Total Radium	0.749 ± 1.02 (2.04)	pCi/L		07/02/24 17:16	
SM 2320B	Alkalinity, Total as CaCO3	416	mg/L	10.0	06/12/24 20:20	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	416	mg/L	10.0	06/12/24 20:20	
SM 2540C	Total Dissolved Solids	594	mg/L	10.0	06/12/24 11:31	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50375256003	**MW-43B**					
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	06/14/24 15:57	H3
EPA 353.2	Nitrogen, Nitrate	3.1	mg/L	0.10	06/07/24 23:41	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

Sample: MW-43A **Lab ID: 50375256001** Collected: 06/06/24 14:27 Received: 06/07/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**93.2**	mg/L	2.5	0.67	10		06/14/24 16:03	16887-00-6	
Fluoride	**0.11**	mg/L	0.10	0.017	1		06/14/24 15:46	16984-48-8	
Sulfate	**983**	mg/L	25.0	19.0	100		06/14/24 16:20	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**9050**	ug/L	100	6.2	1	06/17/24 08:52	06/18/24 23:56	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	06/17/24 08:52	06/18/24 23:56	7440-43-9	
Calcium	**425000**	ug/L	5000	338	5	06/17/24 08:52	06/19/24 00:05	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	06/17/24 08:52	06/18/24 23:56	7440-47-3	
Iron	**6750**	ug/L	100	30.0	1	06/17/24 08:52	06/18/24 23:56	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	06/17/24 08:52	06/18/24 23:56	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	06/17/24 08:52	06/18/24 23:56	7439-93-2	
Magnesium	**31400**	ug/L	1000	33.6	1	06/17/24 08:52	06/18/24 23:56	7439-95-4	
Molybdenum	**289**	ug/L	10.0	0.78	1	06/17/24 08:52	06/18/24 23:56	7439-98-7	
Potassium	**17100**	ug/L	1000	97.8	1	06/17/24 08:52	06/18/24 23:56	7440-09-7	
Sodium	**55300**	ug/L	1000	54.8	1	06/17/24 08:52	06/18/24 23:56	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**9020**	ug/L	100	6.2	1	06/18/24 07:57	06/19/24 23:05	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	06/18/24 07:57	06/19/24 23:05	7439-93-2	
Magnesium, Dissolved	**31200**	ug/L	1000	33.6	1	06/18/24 07:57	06/19/24 23:05	7439-95-4	
Molybdenum, Dissolved	**288**	ug/L	10.0	0.78	1	06/18/24 07:57	06/19/24 23:05	7439-98-7	
Potassium, Dissolved	**17100**	ug/L	1000	97.8	1	06/18/24 07:57	06/19/24 23:05	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	06/11/24 07:40	06/12/24 07:56	7440-36-0	
Arsenic	**1.9**	ug/L	1.0	0.10	1	06/11/24 07:40	06/12/24 07:56	7440-38-2	
Barium	**28.4**	ug/L	1.0	0.062	1	06/11/24 07:40	06/12/24 07:56	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	06/11/24 07:40	06/12/24 07:56	7440-41-7	
Cobalt	ND	ug/L	1.0	0.060	1	06/11/24 07:40	06/12/24 07:56	7440-48-4	
Manganese	**1200**	ug/L	10.0	1.5	10	06/11/24 07:40	06/12/24 22:32	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	06/11/24 07:40	06/12/24 07:56	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	06/11/24 07:40	06/12/24 07:56	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	06/11/24 07:40	06/13/24 00:12	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/17/24 10:31	06/17/24 23:13	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

Sample: MW-43A **Lab ID: 50375256001** Collected: 06/06/24 14:27 Received: 06/07/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**209**	mg/L	10.0	10.0	1		06/12/24 22:11		
Alkalinity,Bicarbonate (CaCO3)	**209**	mg/L	10.0	10.0	1		06/12/24 22:11		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/12/24 22:11		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1730**	mg/L	20.0	20.0	1		06/12/24 11:30		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.6**	Std. Units	0.10	0.10	1		06/14/24 15:56		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		06/11/24 15:56	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		06/08/24 00:02	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.62**	mg/L	0.15	0.13	1	06/20/24 10:00	06/21/24 08:53		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.7**	mg/L	1.0	0.25	1		06/17/24 22:01		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

Sample: MW-43I **Lab ID: 50375256002** Collected: 06/06/24 13:50 Received: 06/07/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**61.4**	mg/L	2.5	0.67	10		06/14/24 17:01	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		06/14/24 16:44	16984-48-8	
Sulfate	**409**	mg/L	2.5	1.9	10		06/14/24 17:01	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**1710**	ug/L	100	6.2	1	06/17/24 08:52	06/18/24 23:58	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	06/17/24 08:52	06/18/24 23:58	7440-43-9	
Calcium	**237000**	ug/L	2000	135	2	06/17/24 08:52	06/19/24 00:06	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	06/17/24 08:52	06/18/24 23:58	7440-47-3	
Iron	**7200**	ug/L	100	30.0	1	06/17/24 08:52	06/18/24 23:58	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	06/17/24 08:52	06/18/24 23:58	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	06/17/24 08:52	06/18/24 23:58	7439-93-2	
Magnesium	**49200**	ug/L	1000	33.6	1	06/17/24 08:52	06/18/24 23:58	7439-95-4	
Molybdenum	**109**	ug/L	10.0	0.78	1	06/17/24 08:52	06/18/24 23:58	7439-98-7	
Potassium	**4470**	ug/L	1000	97.8	1	06/17/24 08:52	06/18/24 23:58	7440-09-7	
Sodium	**37600**	ug/L	1000	54.8	1	06/17/24 08:52	06/18/24 23:58	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1700**	ug/L	100	6.2	1	06/18/24 07:57	06/19/24 23:06	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	06/18/24 07:57	06/19/24 23:06	7439-93-2	
Magnesium, Dissolved	**48600**	ug/L	1000	33.6	1	06/18/24 07:57	06/19/24 23:06	7439-95-4	
Molybdenum, Dissolved	**107**	ug/L	10.0	0.78	1	06/18/24 07:57	06/19/24 23:06	7439-98-7	
Potassium, Dissolved	**4470**	ug/L	1000	97.8	1	06/18/24 07:57	06/19/24 23:06	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Beryllium	ND	ug/L	0.20	0.020	1	06/11/24 07:40	06/12/24 08:00	7440-41-7	
Manganese	**1640**	ug/L	10.0	1.5	10	06/11/24 07:40	06/12/24 22:36	7439-96-5	
Cobalt	ND	ug/L	1.0	0.060	1	06/11/24 07:40	06/12/24 08:00	7440-48-4	
Arsenic	**4.3**	ug/L	1.0	0.10	1	06/11/24 07:40	06/12/24 08:00	7440-38-2	
Selenium	ND	ug/L	1.0	0.36	1	06/11/24 07:40	06/12/24 08:00	7782-49-2	
Antimony	ND	ug/L	1.0	0.26	1	06/11/24 07:40	06/12/24 08:00	7440-36-0	
Barium	**58.3**	ug/L	1.0	0.062	1	06/11/24 07:40	06/12/24 08:00	7440-39-3	
Thallium	ND	ug/L	1.0	0.079	1	06/11/24 07:40	06/12/24 08:00	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	06/11/24 07:40	06/12/24 23:41	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/17/24 10:31	06/17/24 23:15	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

Sample: MW-43I **Lab ID: 50375256002** Collected: 06/06/24 13:50 Received: 06/07/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**422**	mg/L	10.0	10.0	1		06/12/24 22:11		
Alkalinity,Bicarbonate (CaCO3)	**422**	mg/L	10.0	10.0	1		06/12/24 22:11		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/12/24 22:11		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**978**	mg/L	20.0	20.0	1		06/12/24 11:30		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.5**	Std. Units	0.10	0.10	1		06/14/24 15:57		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		06/11/24 15:56	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		06/07/24 23:58	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.55**	mg/L	0.15	0.13	1	06/20/24 10:00	06/21/24 08:56		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.7**	mg/L	1.0	0.25	1		06/17/24 23:06		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

Sample: MW-43B **Lab ID: 50375256003** Collected: 06/06/24 12:34 Received: 06/07/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**23.2**	mg/L	2.5	0.67	10		06/14/24 17:50	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		06/14/24 17:34	16984-48-8	
Sulfate	**113**	mg/L	2.5	1.9	10		06/14/24 17:50	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**931**	ug/L	100	6.2	1	06/17/24 08:52	06/19/24 00:00	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	06/17/24 08:52	06/19/24 00:00	7440-43-9	
Calcium	**161000**	ug/L	1000	67.7	1	06/17/24 08:52	06/19/24 00:00	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	06/17/24 08:52	06/19/24 00:00	7440-47-3	
Iron	**120**	ug/L	100	30.0	1	06/17/24 08:52	06/19/24 00:00	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	06/17/24 08:52	06/19/24 00:00	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	06/17/24 08:52	06/19/24 00:00	7439-93-2	
Magnesium	**33700**	ug/L	1000	33.6	1	06/17/24 08:52	06/19/24 00:00	7439-95-4	
Molybdenum	ND	ug/L	10.0	0.78	1	06/17/24 08:52	06/19/24 00:00	7439-98-7	
Potassium	**1320**	ug/L	1000	97.8	1	06/17/24 08:52	06/19/24 00:00	7440-09-7	
Sodium	**12100**	ug/L	1000	54.8	1	06/17/24 08:52	06/19/24 00:00	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**917**	ug/L	100	6.2	1	06/18/24 07:57	06/19/24 23:08	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	06/18/24 07:57	06/19/24 23:08	7439-93-2	
Magnesium, Dissolved	**33000**	ug/L	1000	33.6	1	06/18/24 07:57	06/19/24 23:08	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	06/18/24 07:57	06/19/24 23:08	7439-98-7	
Potassium, Dissolved	**1310**	ug/L	1000	97.8	1	06/18/24 07:57	06/19/24 23:08	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	06/11/24 07:40	06/12/24 08:04	7440-36-0	
Arsenic	ND	ug/L	1.0	0.10	1	06/11/24 07:40	06/12/24 08:04	7440-38-2	
Barium	**51.9**	ug/L	1.0	0.062	1	06/11/24 07:40	06/12/24 08:04	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	06/11/24 07:40	06/12/24 08:04	7440-41-7	
Cobalt	**1.6**	ug/L	1.0	0.060	1	06/11/24 07:40	06/12/24 08:04	7440-48-4	
Manganese	**996**	ug/L	10.0	1.5	10	06/11/24 07:40	06/12/24 22:40	7439-96-5	
Selenium	**22.0**	ug/L	1.0	0.36	1	06/11/24 07:40	06/12/24 08:04	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	06/11/24 07:40	06/12/24 08:04	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	06/11/24 07:40	06/13/24 00:16	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/17/24 10:31	06/17/24 23:27	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

Sample: MW-43B **Lab ID: 50375256003** Collected: 06/06/24 12:34 Received: 06/07/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**416**	mg/L	10.0	10.0	1		06/12/24 20:20		
Alkalinity,Bicarbonate (CaCO3)	**416**	mg/L	10.0	10.0	1		06/12/24 20:20		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/12/24 20:20		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**594**	mg/L	10.0	10.0	1		06/12/24 11:31		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.5**	Std. Units	0.10	0.10	1		06/14/24 15:57		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		06/11/24 15:56	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**3.1**	mg/L	0.10	0.013	1		06/07/24 23:41	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	06/20/24 10:00	06/21/24 08:57		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.25	1		06/17/24 23:31		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

QC Batch: 795009
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375256001, 50375256002, 50375256003

METHOD BLANK: 3637483 Matrix: Water
Associated Lab Samples: 50375256001, 50375256002, 50375256003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	06/14/24 14:22	
Fluoride	mg/L	ND	0.10	0.017	06/14/24 14:22	
Sulfate	mg/L	ND	0.25	0.19	06/14/24 14:22	

LABORATORY CONTROL SAMPLE: 3637484

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	92	80-120	
Fluoride	mg/L	1	0.97	97	80-120	
Sulfate	mg/L	5	4.8	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3637490 3637491

Parameter	Units	50375099001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	12.3	2.5	2.5	14.9	14.9	103	105	80-120	0	15	
Fluoride	mg/L	ND	1	1	1.0	1.0	100	100	80-120	0	15	
Sulfate	mg/L	16.3	5	5	21.4	21.4	101	101	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

QC Batch: 795770
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375256001, 50375256002, 50375256003

METHOD BLANK: 3641190 Matrix: Water
Associated Lab Samples: 50375256001, 50375256002, 50375256003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	06/17/24 21:17	

LABORATORY CONTROL SAMPLE: 3641191

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3641192 3641193

Parameter	Units	50375256002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.2	5.0	103	100	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

QC Batch: 795438
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375256001, 50375256002, 50375256003

METHOD BLANK: 3639649 Matrix: Water
Associated Lab Samples: 50375256001, 50375256002, 50375256003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	06/18/24 23:10	
Cadmium	ug/L	ND	2.0	0.60	06/18/24 23:10	
Calcium	ug/L	ND	1000	67.7	06/18/24 23:10	
Chromium	ug/L	ND	10.0	0.42	06/18/24 23:10	
Iron	ug/L	ND	100	30.0	06/18/24 23:10	
Lead	ug/L	ND	10.0	2.5	06/18/24 23:10	
Lithium	ug/L	ND	20.0	6.8	06/18/24 23:10	
Magnesium	ug/L	ND	1000	33.6	06/18/24 23:10	
Molybdenum	ug/L	ND	10.0	0.78	06/18/24 23:10	
Potassium	ug/L	ND	1000	97.8	06/18/24 23:10	
Sodium	ug/L	ND	1000	54.8	06/18/24 23:10	

LABORATORY CONTROL SAMPLE: 3639650

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	989	99	80-120	
Cadmium	ug/L	1000	988	99	80-120	
Calcium	ug/L	10000	10200	102	80-120	
Chromium	ug/L	1000	1000	100	80-120	
Iron	ug/L	10000	10200	102	80-120	
Lead	ug/L	1000	982	98	80-120	
Lithium	ug/L	1000	1010	101	80-120	
Magnesium	ug/L	10000	10100	101	80-120	
Molybdenum	ug/L	1000	1030	103	80-120	
Potassium	ug/L	10000	9950	100	80-120	
Sodium	ug/L	10000	9820	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3639651 3639652

Parameter	Units	50375172003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	ND	1000	1000	1060	1080	100	102	75-125	2	20	
Cadmium	ug/L	0.0034 mg/L	1000	1000	998	1000	99	100	75-125	0	20	
Calcium	ug/L	130 mg/L	10000	10000	137000	136000	63	61	75-125	0	20	P6
Chromium	ug/L	ND	1000	1000	996	1000	99	100	75-125	1	20	
Iron	ug/L	0.44 mg/L	10000	10000	10500	10600	101	101	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3639651 3639652

Parameter	Units	50375172003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	ug/L	ND	1000	1000	961	967	96	97	75-125	1	20	
Lithium	ug/L	ND	1000	1000	1020	1020	101	101	75-125	0	20	
Magnesium	ug/L	37.0 mg/L	10000	10000	45800	45800	88	88	75-125	0	20	
Molybdenum	ug/L	ND	1000	1000	1040	1040	103	104	75-125	0	20	
Potassium	ug/L	1.2 mg/L	10000	10000	11300	11200	101	100	75-125	1	20	
Sodium	ug/L	5.5 mg/L	10000	10000	15300	15200	98	97	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

QC Batch: 796015
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375256001, 50375256002, 50375256003

METHOD BLANK: 3642677 Matrix: Water
Associated Lab Samples: 50375256001, 50375256002, 50375256003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	06/19/24 22:31	
Lithium, Dissolved	ug/L	ND	20.0	6.8	06/19/24 22:31	
Magnesium, Dissolved	ug/L	ND	1000	33.6	06/19/24 22:31	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	06/19/24 22:31	
Potassium, Dissolved	ug/L	ND	1000	97.8	06/19/24 22:31	

LABORATORY CONTROL SAMPLE: 3642678

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	908	91	80-120	
Lithium, Dissolved	ug/L	1000	969	97	80-120	
Magnesium, Dissolved	ug/L	10000	9420	94	80-120	
Molybdenum, Dissolved	ug/L	1000	949	95	80-120	
Potassium, Dissolved	ug/L	10000	9530	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3642679 3642680

Parameter	Units	50375172003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	0.048 mg/L	1000	1000	1040	1040	99	100	75-125	1	20	
Lithium, Dissolved	ug/L	ND	1000	1000	1020	1000	101	99	75-125	2	20	
Magnesium, Dissolved	ug/L	34.9 mg/L	10000	10000	43800	43800	89	89	75-125	0	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1010	1010	101	101	75-125	0	20	
Potassium, Dissolved	ug/L	1.1 mg/L	10000	10000	11200	10900	101	98	75-125	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3642681 3642682

Parameter	Units	50375559001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	ND	1000	1000	1010	1010	99	99	75-125	0	20	
Lithium, Dissolved	ug/L	ND	1000	1000	1030	1000	103	100	75-125	3	20	
Magnesium, Dissolved	ug/L	10100	10000	10000	19700	19800	96	97	75-125	1	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1020	1020	102	101	75-125	1	20	
Potassium, Dissolved	ug/L	7710	10000	10000	18100	17600	104	99	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

QC Batch: 794823
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375256001, 50375256002, 50375256003

METHOD BLANK: 3636642 Matrix: Water
Associated Lab Samples: 50375256001, 50375256002, 50375256003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.26	06/12/24 07:04	
Arsenic	ug/L	ND	1.0	0.10	06/12/24 07:04	
Barium	ug/L	ND	1.0	0.062	06/12/24 07:04	
Beryllium	ug/L	ND	0.20	0.020	06/12/24 07:04	
Cobalt	ug/L	ND	1.0	0.060	06/12/24 07:04	
Manganese	ug/L	ND	1.0	0.15	06/12/24 07:04	
Selenium	ug/L	ND	1.0	0.36	06/12/24 07:04	
Thallium	ug/L	ND	1.0	0.079	06/12/24 07:04	

LABORATORY CONTROL SAMPLE: 3636643

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	41.5	104	80-120	
Arsenic	ug/L	40	39.4	99	80-120	
Barium	ug/L	40	38.3	96	80-120	
Beryllium	ug/L	40	39.6	99	80-120	
Cobalt	ug/L	40	40.8	102	80-120	
Manganese	ug/L	40	41.1	103	80-120	
Selenium	ug/L	40	40.4	101	80-120	
Thallium	ug/L	40	38.5	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3636644 3636645

Parameter	Units	50375098001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	38.6	39.7	96	99	75-125	3	20	
Arsenic	ug/L	0.00045J mg/L	40	40	39.4	39.9	97	99	75-125	1	20	
Barium	ug/L	0.11 mg/L	40	40	143	146	91	98	75-125	2	20	
Beryllium	ug/L	ND	40	40	39.4	40.7	98	102	75-125	3	20	
Cobalt	ug/L	0.00017J mg/L	40	40	38.7	39.3	96	98	75-125	2	20	
Manganese	ug/L	0.0088 mg/L	40	40	49.6	49.3	102	101	75-125	1	20	
Selenium	ug/L	ND	40	40	39.9	36.3	100	90	75-125	10	20	
Thallium	ug/L	ND	40	40	38.4	39.3	96	98	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

QC Batch: 794827
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375256001, 50375256002, 50375256003

METHOD BLANK: 3636657 Matrix: Water
Associated Lab Samples: 50375256001, 50375256002, 50375256003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.6	06/12/24 22:52	

LABORATORY CONTROL SAMPLE: 3636658

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	401	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3636659 3636660

Parameter	Units	50375256002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	389	398	97	99	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

QC Batch: 795384
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375256001, 50375256002

METHOD BLANK: 3639389 Matrix: Water
Associated Lab Samples: 50375256001, 50375256002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	06/12/24 22:11	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	06/12/24 22:11	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	06/12/24 22:11	

LABORATORY CONTROL SAMPLE: 3639390

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	53.3	107	90-110	

SAMPLE DUPLICATE: 3639391

Parameter	Units	50374953001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	486	501	3	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	486	501	3	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3639392

Parameter	Units	50375098002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	646	652	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	596	602	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	50.0	50.4	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

QC Batch: 795389
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375256003

METHOD BLANK: 3639433 Matrix: Water
Associated Lab Samples: 50375256003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	06/12/24 20:20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	06/12/24 20:20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	06/12/24 20:20	

LABORATORY CONTROL SAMPLE: 3639434

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	53.3	107	90-110	

SAMPLE DUPLICATE: 3639435

Parameter	Units	50375172003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	408	415	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	408	415	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3639436

Parameter	Units	50375253002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	326	334	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	326	334	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

QC Batch: 795204
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375256001, 50375256002, 50375256003

METHOD BLANK: 3638316 Matrix: Water
Associated Lab Samples: 50375256001, 50375256002, 50375256003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	06/12/24 11:21	

LABORATORY CONTROL SAMPLE: 3638317

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	278	93	80-120	

SAMPLE DUPLICATE: 3638318

Parameter	Units	50375198005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	385	390	1	10	

SAMPLE DUPLICATE: 3638319

Parameter	Units	50375253002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	525	525	0	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

QC Batch: 795804
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375256001, 50375256002, 50375256003

SAMPLE DUPLICATE: 3641319

Parameter	Units	50375252003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.4	8.3	0	2	H3

SAMPLE DUPLICATE: 3641320

Parameter	Units	50375279003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.0	7.0	0	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

QC Batch: 795075
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375256001, 50375256002, 50375256003

METHOD BLANK: 3637848 Matrix: Water
Associated Lab Samples: 50375256001, 50375256002, 50375256003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	06/11/24 15:56	

LABORATORY CONTROL SAMPLE: 3637849

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.54	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3637850 3637851

Parameter	Units	50375179001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.34	0.31	64	59	90-110	7	20	M3

MATRIX SPIKE SAMPLE: 3637852

Parameter	Units	50375256002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.21	40	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

QC Batch: 794579
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375256001, 50375256002, 50375256003

METHOD BLANK: 3635391 Matrix: Water
Associated Lab Samples: 50375256001, 50375256002, 50375256003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	06/07/24 23:38	

LABORATORY CONTROL SAMPLE: 3635392

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.99	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3635393 3635394

Parameter	Units	50375198003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	0.96	0.97	94	95	90-110	0	20	

MATRIX SPIKE SAMPLE: 3635395

Parameter	Units	50375284004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	0.69	69	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

QC Batch: 796748
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375256001, 50375256002, 50375256003

METHOD BLANK: 3645290 Matrix: Water
Associated Lab Samples: 50375256001, 50375256002, 50375256003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	06/21/24 08:48	

LABORATORY CONTROL SAMPLE: 3645291

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3645292 3645293

Parameter	Units	50375089001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	0.47			1.8	1.8				1		

MATRIX SPIKE SAMPLE: 3645294

Parameter	Units	50375256001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	0.62		2.0			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

QC Batch: 796033
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375256001, 50375256002, 50375256003

METHOD BLANK: 3642718 Matrix: Water
Associated Lab Samples: 50375256001, 50375256002, 50375256003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	06/17/24 14:20	

LABORATORY CONTROL SAMPLE: 3642719

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.5	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3642720 3642721

Parameter	Units	50375000007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.2	10	10	11.3	11.2	101	100	80-120	1	20	

MATRIX SPIKE SAMPLE: 3642722

Parameter	Units	50375284001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	1.3	10	10.9	96	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

Sample: MW-43A **Lab ID: 50375256001** Collected: 06/06/24 14:27 Received: 06/07/24 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.639 ± 0.565 (0.837) C:NA T:94%**	pCi/L	06/27/24 15:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.803 ± 0.405 (0.695) C:86% T:82%**	pCi/L	06/26/24 14:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.44 ± 0.970 (1.53)**	pCi/L	07/02/24 17:16	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

Sample: MW-43I **Lab ID: 50375256002** Collected: 06/06/24 13:50 Received: 06/07/24 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.428 ± 0.807 (1.43) C:NA T:93%**	pCi/L	07/02/24 13:19	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.55 ± 0.553 (0.768) C:83% T:88%**	pCi/L	06/26/24 14:42	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.98 ± 1.36 (2.20)**	pCi/L	07/02/24 17:16	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

Sample: MW-43B **Lab ID: 50375256003** Collected: 06/06/24 12:34 Received: 06/07/24 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.604 ± 0.652 (1.42) C:NA T:96%**	pCi/L	06/27/24 15:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.749 ± 0.371 (0.616) C:82% T:87%**	pCi/L	06/26/24 14:42	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.749 ± 1.02 (2.04)**	pCi/L	07/02/24 17:16	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

QC Batch: 675250
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50375256001, 50375256002, 50375256003

METHOD BLANK: 3287802
Matrix: Water
Associated Lab Samples: 50375256001, 50375256002, 50375256003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0507 ± 0.231 (0.373) C:NA T:91%	pCi/L	06/27/24 15:07	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

QC Batch: 675251
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50375256001, 50375256002, 50375256003

METHOD BLANK: 3287803
Matrix: Water
Associated Lab Samples: 50375256001, 50375256002, 50375256003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.726 ± 0.390 (0.690) C:87% T:81%	pCi/L	06/26/24 14:41	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50375256001	**MW-43A**	EPA 9056	795009		
50375256002	**MW-43I**	EPA 9056	795009		
50375256003	**MW-43B**	EPA 9056	795009		
50375256001	**MW-43A**	EPA 3010	795438	EPA 6010	796445
50375256002	**MW-43I**	EPA 3010	795438	EPA 6010	796445
50375256003	**MW-43B**	EPA 3010	795438	EPA 6010	796445
50375256001	**MW-43A**	EPA 3010	796015	EPA 6010	796717
50375256002	**MW-43I**	EPA 3010	796015	EPA 6010	796717
50375256003	**MW-43B**	EPA 3010	796015	EPA 6010	796717
50375256001	**MW-43A**	EPA 200.2	794823	EPA 6020	795129
50375256002	**MW-43I**	EPA 200.2	794823	EPA 6020	795129
50375256003	**MW-43B**	EPA 200.2	794823	EPA 6020	795129
50375256001	**MW-43A**	EPA 200.2	794827	EPA 6020	795132
50375256002	**MW-43I**	EPA 200.2	794827	EPA 6020	795132
50375256003	**MW-43B**	EPA 200.2	794827	EPA 6020	795132
50375256001	**MW-43A**	EPA 7470	795770	EPA 7470	796160
50375256002	**MW-43I**	EPA 7470	795770	EPA 7470	796160
50375256003	**MW-43B**	EPA 7470	795770	EPA 7470	796160
50375256001	**MW-43A**	EPA 903.1	675250		
50375256002	**MW-43I**	EPA 903.1	675250		
50375256003	**MW-43B**	EPA 903.1	675250		
50375256001	**MW-43A**	EPA 904.0	675251		
50375256002	**MW-43I**	EPA 904.0	675251		
50375256003	**MW-43B**	EPA 904.0	675251		
50375256001	**MW-43A**	Total Radium Calculation	679918		
50375256002	**MW-43I**	Total Radium Calculation	679918		
50375256003	**MW-43B**	Total Radium Calculation	679918		
50375256001	**MW-43A**	SM 2320B	795384		
50375256002	**MW-43I**	SM 2320B	795384		
50375256003	**MW-43B**	SM 2320B	795389		
50375256001	**MW-43A**	SM 2540C	795204		
50375256002	**MW-43I**	SM 2540C	795204		
50375256003	**MW-43B**	SM 2540C	795204		
50375256001	**MW-43A**	SM 4500-H+B	795804		
50375256002	**MW-43I**	SM 4500-H+B	795804		
50375256003	**MW-43B**	SM 4500-H+B	795804		
50375256001	**MW-43A**	SM 4500-S2-D	795075		
50375256002	**MW-43I**	SM 4500-S2-D	795075		
50375256003	**MW-43B**	SM 4500-S2-D	795075		
50375256001	**MW-43A**	EPA 353.2	794579		
50375256002	**MW-43I**	EPA 353.2	794579		
50375256003	**MW-43B**	EPA 353.2	794579		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4
Pace Project No.: 50375256

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50375256001	**MW-43A**	EPA 365.1	796748	EPA 365.1	797001
50375256002	**MW-43I**	EPA 365.1	796748	EPA 365.1	797001
50375256003	**MW-43B**	EPA 365.1	796748	EPA 365.1	797001
50375256001	**MW-43A**	SM 5310C	796033		
50375256002	**MW-43I**	SM 5310C	796033		
50375256003	**MW-43B**	SM 5310C	796033		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request D

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields m

WO# : 50375256

50375256

Page : (Of)

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P4 May 2024	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:		Pace Profile #:	10498/60

Regulatory Agency	State / Location
	IN

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO3 Wet	(Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity,pH	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum	Residual Chlorine (Y/N)	
	Requested Analysis Filtered (Y/N)																					Y			Y			
1	MW43-A	WT	G			6-6	1427		10	X	X	X		X					X	X	X	X	X	X	X	X	X	001
2	MW43-I	WT	G			6-6	1350		10	X	X	X		X														002
3	MW43-B	WT	G			6-6	1234		10	X	X	X		X														003
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Metals: 6010 (B, Cd, Cr, Fe, Pb, Mo, Ca, Mg, Na, K, Li) (11)	Hayley Tollis	6-6-24	1600	FedEx	6-6-24	1600				
6020 (Be, Mn, Co, As, Se, Sb, Ba, Tl) (8), 7470 (Hg)	Fedex	6/7/24	930	Maddie	6/7/24	930	3.1	Y	Y	Y
* Dissolved FF 6010 (B, Mo, Mg, K, Li) (5) FF 6020 (Al) (1)										
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Hayley Tollis					
SIGNATURE of SAMPLER:		DATE Signed: 6-6-24				

F-IN-Q-290-rev.26, 30Apr2024

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 6/7/24 1223 MW

1. **Courier:** ☑FED EX | UPS ☐CLIENT ☐PACE ☐NOW/JETT | OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H
4. **Cooler Temperature(s):** 3.2/3.1 (Initial/Corrected) **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**

5. **Packing Material:** | |Bubble Wrap | |Bubble Bags | ☑None | | Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **Was the PM notified of out of temp cooler?:** | |Yes ☐No
   Cooler temp should be above freezing to 6°C
8. **EZ Bottle Order?** | Yes ☑No

If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.**	✓		
Short Hold Time Analysis (48 hours or less)? **Analysis:** NO3	✓		**Circle:** **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1													1			2	1	2	1	1	1		1					✓	✓		✓
2													↓			↓	↓	↓	↓	↓	↓		↓					↓	↓		↓
3													↓			↓	↓	↓	↓	↓	↓		↓					↓	↓		↓
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

July 24, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on June 07, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50375284001	**MW-42A**	Water	06/07/24 14:23	06/07/24 15:18
50375284002	**MW-42I**	Water	06/07/24 13:30	06/07/24 15:18
50375284003	**MW-42B**	Water	06/07/24 11:40	06/07/24 15:18
50375284004	**DUP-14**	Water	06/07/24 08:00	06/07/24 15:18
50375284005	**Field Blank 5**	Water	06/07/24 12:43	06/07/24 15:18

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50375284001	**MW-42A**	EPA 9056	ADM	3	PASI-I
		EPA 6010	NWB	11	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	MTM	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50375284002	**MW-42I**	EPA 9056	ADM	3	PASI-I
		EPA 6010	NWB	11	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	MTM	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50375284003	**MW-42B**	EPA 9056	ADM	3	PASI-I
		EPA 6010	NWB	11	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	MTM	1	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50375284004	**DUP-14**	EPA 9056	ADM	3	PASI-I
		EPA 6010	NWB	11	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	MTM	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50375284005	**Field Blank 5**	EPA 9056	ADM	3	PASI-I
		EPA 6010	NWB	11	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	MTM	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50375284001	**MW-42A**					
EPA 9056	Chloride	115	mg/L	2.5	06/14/24 22:44	
EPA 9056	Sulfate	1570	mg/L	25.0	06/14/24 23:01	
EPA 6010	Boron	22000	ug/L	100	06/21/24 09:41	
EPA 6010	Calcium	644000	ug/L	5000	06/21/24 11:55	
EPA 6010	Iron	9110	ug/L	100	06/21/24 09:41	
EPA 6010	Magnesium	16800	ug/L	1000	06/21/24 09:41	
EPA 6010	Molybdenum	2020	ug/L	10.0	06/21/24 09:41	
EPA 6010	Potassium	32900	ug/L	1000	06/21/24 09:41	
EPA 6010	Sodium	38400	ug/L	1000	06/21/24 09:41	
EPA 6010	Boron, Dissolved	22300	ug/L	100	06/20/24 02:38	
EPA 6010	Magnesium, Dissolved	17200	ug/L	1000	06/20/24 02:38	
EPA 6010	Molybdenum, Dissolved	2020	ug/L	10.0	06/20/24 02:38	
EPA 6010	Potassium, Dissolved	33300	ug/L	1000	06/20/24 02:38	
EPA 6020	Barium	33.3	ug/L	1.0	06/13/24 03:19	
EPA 6020	Manganese	2350	ug/L	20.0	06/13/24 22:59	
EPA 903.1	Radium-226	0.516 ± 0.881 (1.53) C:NA T:91%	pCi/L		06/27/24 15:55	
EPA 904.0	Radium-228	1.31 ± 0.475 (0.696) C:85% T:88%	pCi/L		06/26/24 12:31	
Total Radium Calculation	Total Radium	1.83 ± 1.36 (2.23)	pCi/L		06/28/24 13:54	
SM 2320B	Alkalinity, Total as CaCO3	78.4	mg/L	10.0	06/14/24 19:42	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	78.4	mg/L	10.0	06/14/24 19:42	
SM 2540C	Total Dissolved Solids	2480	mg/L	20.0	06/13/24 11:01	
SM 4500-H+B	pH at 25 Degrees C	6.9	Std. Units	0.10	06/18/24 15:21	H3
EPA 365.1	Phosphate as P04	0.27	mg/L	0.15	06/21/24 08:58	
SM 5310C	Dissolved Organic Carbon	1.3	mg/L	1.0	06/17/24 23:51	
50375284002	**MW-42I**					
EPA 9056	Chloride	82.4	mg/L	2.5	06/14/24 23:34	
EPA 9056	Fluoride	0.17	mg/L	0.10	06/14/24 23:18	
EPA 9056	Sulfate	987	mg/L	25.0	06/14/24 23:51	
EPA 6010	Boron	14800	ug/L	100	06/21/24 09:43	
EPA 6010	Calcium	450000	ug/L	5000	06/21/24 11:57	
EPA 6010	Iron	11600	ug/L	100	06/21/24 09:43	
EPA 6010	Lithium	57.9	ug/L	20.0	06/21/24 09:43	
EPA 6010	Magnesium	31200	ug/L	1000	06/21/24 09:43	
EPA 6010	Molybdenum	347	ug/L	10.0	06/21/24 09:43	
EPA 6010	Potassium	23200	ug/L	1000	06/21/24 09:43	
EPA 6010	Sodium	35900	ug/L	1000	06/21/24 09:43	
EPA 6010	Boron, Dissolved	15000	ug/L	100	06/20/24 02:40	
EPA 6010	Lithium, Dissolved	57.7	ug/L	20.0	06/20/24 02:40	
EPA 6010	Magnesium, Dissolved	31800	ug/L	1000	06/20/24 02:40	
EPA 6010	Molybdenum, Dissolved	353	ug/L	10.0	06/20/24 02:40	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50375284002	**MW-42I**					
EPA 6010	Potassium, Dissolved	22900	ug/L	1000	06/20/24 02:40	
EPA 6020	Barium	32.7	ug/L	1.0	06/13/24 03:23	
EPA 6020	Manganese	3720	ug/L	25.0	06/13/24 23:03	
EPA 903.1	Radium-226	0.780 ± 0.749 (1.18) C:NA T:93%	pCi/L		06/27/24 15:55	
EPA 904.0	Radium-228	0.983 ± 0.475 (0.837) C:82% T:87%	pCi/L		06/26/24 12:31	
Total Radium Calculation	Total Radium	1.76 ± 1.22 (2.02)	pCi/L		06/28/24 13:54	
SM 2320B	Alkalinity, Total as CaCO3	240	mg/L	10.0	06/14/24 19:42	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	240	mg/L	10.0	06/14/24 19:42	
SM 2540C	Total Dissolved Solids	1710	mg/L	20.0	06/13/24 11:01	
SM 4500-H+B	pH at 25 Degrees C	6.9	Std. Units	0.10	06/18/24 15:52	H3
EPA 365.1	Phosphate as P04	0.60	mg/L	0.15	06/21/24 08:59	
SM 5310C	Dissolved Organic Carbon	1.6	mg/L	1.0	06/18/24 00:31	
50375284003	**MW-42B**					
EPA 9056	Chloride	25.0	mg/L	2.5	06/18/24 20:25	
EPA 9056	Sulfate	200	mg/L	2.5	06/18/24 20:25	
EPA 6010	Boron	2520	ug/L	100	06/21/24 09:45	
EPA 6010	Calcium	223000	ug/L	2000	06/21/24 11:59	
EPA 6010	Iron	578	ug/L	100	06/21/24 09:45	
EPA 6010	Magnesium	41700	ug/L	1000	06/21/24 09:45	
EPA 6010	Potassium	2360	ug/L	1000	06/21/24 09:45	
EPA 6010	Sodium	15500	ug/L	1000	06/21/24 09:45	
EPA 6010	Boron, Dissolved	2540	ug/L	100	06/20/24 02:41	
EPA 6010	Magnesium, Dissolved	43500	ug/L	1000	06/20/24 02:41	
EPA 6010	Potassium, Dissolved	2270	ug/L	1000	06/20/24 02:41	
EPA 6020	Barium	64.4	ug/L	1.0	06/13/24 03:27	
EPA 6020	Cobalt	2.2	ug/L	1.0	06/13/24 03:27	
EPA 6020	Manganese	1400	ug/L	10.0	06/13/24 23:07	
EPA 6020	Selenium	4.8	ug/L	1.0	06/13/24 03:27	
EPA 903.1	Radium-226	-0.225 ± 0.570 (1.25) C:NA T:89%	pCi/L		06/27/24 15:55	
EPA 904.0	Radium-228	0.684 ± 0.329 (0.540) C:86% T:86%	pCi/L		06/26/24 12:30	
Total Radium Calculation	Total Radium	0.684 ± 0.899 (1.79)	pCi/L		06/28/24 13:54	
SM 2320B	Alkalinity, Total as CaCO3	526	mg/L	10.0	06/14/24 19:42	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	526	mg/L	10.0	06/14/24 19:42	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50375284003	**MW-42B**					
SM 2540C	Total Dissolved Solids	810	mg/L	20.0	06/13/24 10:51	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	06/18/24 15:53	H3
EPA 353.2	Nitrogen, Nitrate	1.4	mg/L	0.10	06/08/24 00:45	
EPA 365.1	Phosphate as P04	1.0	mg/L	0.15	06/21/24 08:59	
SM 5310C	Dissolved Organic Carbon	3.2	mg/L	1.0	06/20/24 00:52	
50375284004	**DUP-14**					
EPA 9056	Chloride	82.5	mg/L	2.5	06/15/24 00:59	
EPA 9056	Fluoride	0.21	mg/L	0.10	06/15/24 00:42	
EPA 9056	Sulfate	992	mg/L	25.0	06/15/24 01:16	
EPA 6010	Boron	14800	ug/L	100	06/21/24 09:47	
EPA 6010	Calcium	454000	ug/L	5000	06/21/24 12:01	
EPA 6010	Iron	11600	ug/L	100	06/21/24 09:47	
EPA 6010	Lithium	57.4	ug/L	20.0	06/21/24 09:47	
EPA 6010	Magnesium	31000	ug/L	1000	06/21/24 09:47	
EPA 6010	Molybdenum	348	ug/L	10.0	06/21/24 09:47	
EPA 6010	Potassium	23100	ug/L	1000	06/21/24 09:47	
EPA 6010	Sodium	35700	ug/L	1000	06/21/24 09:47	
EPA 6010	Boron, Dissolved	15000	ug/L	100	06/20/24 02:43	
EPA 6010	Lithium, Dissolved	59.1	ug/L	20.0	06/20/24 02:43	
EPA 6010	Magnesium, Dissolved	33100	ug/L	1000	06/20/24 02:43	
EPA 6010	Molybdenum, Dissolved	337	ug/L	10.0	06/20/24 02:43	
EPA 6010	Potassium, Dissolved	22700	ug/L	1000	06/20/24 02:43	
EPA 6020	Barium	32.3	ug/L	1.0	06/13/24 03:39	
EPA 6020	Manganese	3700	ug/L	25.0	06/13/24 23:11	
EPA 903.1	Radium-226	0.456 ± 0.598 (0.996) C:NA T:87%	pCi/L		06/27/24 15:55	
EPA 904.0	Radium-228	1.02 ± 0.396 (0.574) C:86% T:83%	pCi/L		06/26/24 12:30	
Total Radium Calculation	Total Radium	1.48 ± 0.994 (1.57)	pCi/L		06/28/24 13:54	
SM 2320B	Alkalinity, Total as CaCO3	240	mg/L	10.0	06/14/24 19:42	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	240	mg/L	10.0	06/14/24 19:42	
SM 2540C	Total Dissolved Solids	1730	mg/L	20.0	06/13/24 10:51	
SM 4500-H+B	pH at 25 Degrees C	6.9	Std. Units	0.10	06/18/24 15:54	H3
EPA 365.1	Phosphate as P04	0.59	mg/L	0.15	06/21/24 09:00	
SM 5310C	Dissolved Organic Carbon	2.0	mg/L	1.0	06/20/24 01:02	
50375284005	**Field Blank 5**					
EPA 903.1	Radium-226	-0.642 ± 0.670 (1.48) C:NA T:92%	pCi/L		06/27/24 15:55	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50375284005	**Field Blank 5**					
EPA 904.0	Radium-228	0.137 ± 0.286 (0.632) C:82% T:89%	pCi/L		06/26/24 12:31	
Total Radium Calculation	Total Radium	0.137 ± 0.956 (2.11)	pCi/L		06/28/24 13:54	
SM 4500-H+B	pH at 25 Degrees C	8.6	Std. Units	0.10	06/18/24 15:54	H3

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

Sample: MW-42A **Lab ID: 50375284001** Collected: 06/07/24 14:23 Received: 06/07/24 15:18 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**115**	mg/L	2.5	0.67	10		06/14/24 22:44	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		06/14/24 22:27	16984-48-8	
Sulfate	**1570**	mg/L	25.0	19.0	100		06/14/24 23:01	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**22000**	ug/L	100	11.4	1	06/20/24 21:55	06/21/24 09:41	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	06/20/24 21:55	06/21/24 09:41	7440-43-9	
Calcium	**644000**	ug/L	5000	284	5	06/20/24 21:55	06/21/24 11:55	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	06/20/24 21:55	06/21/24 09:41	7440-47-3	
Iron	**9110**	ug/L	100	18.1	1	06/20/24 21:55	06/21/24 09:41	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	06/20/24 21:55	06/21/24 09:41	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	06/20/24 21:55	06/21/24 09:41	7439-93-2	
Magnesium	**16800**	ug/L	1000	32.8	1	06/20/24 21:55	06/21/24 09:41	7439-95-4	
Molybdenum	**2020**	ug/L	10.0	1.1	1	06/20/24 21:55	06/21/24 09:41	7439-98-7	
Potassium	**32900**	ug/L	1000	120	1	06/20/24 21:55	06/21/24 09:41	7440-09-7	
Sodium	**38400**	ug/L	1000	48.2	1	06/20/24 21:55	06/21/24 09:41	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**22300**	ug/L	100	6.2	1	06/19/24 16:03	06/20/24 02:38	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	06/19/24 16:03	06/20/24 02:38	7439-93-2	
Magnesium, Dissolved	**17200**	ug/L	1000	33.6	1	06/19/24 16:03	06/20/24 02:38	7439-95-4	
Molybdenum, Dissolved	**2020**	ug/L	10.0	0.78	1	06/19/24 16:03	06/20/24 02:38	7439-98-7	
Potassium, Dissolved	**33300**	ug/L	1000	97.8	1	06/19/24 16:03	06/20/24 02:38	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	06/12/24 12:35	06/13/24 03:19	7440-36-0	
Arsenic	ND	ug/L	1.0	0.10	1	06/12/24 12:35	06/13/24 03:19	7440-38-2	
Barium	**33.3**	ug/L	1.0	0.062	1	06/12/24 12:35	06/13/24 03:19	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	06/12/24 12:35	06/13/24 03:19	7440-41-7	
Cobalt	ND	ug/L	1.0	0.060	1	06/12/24 12:35	06/13/24 03:19	7440-48-4	
Manganese	**2350**	ug/L	20.0	3.0	20	06/12/24 12:35	06/13/24 22:59	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	06/12/24 12:35	06/13/24 03:19	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	06/12/24 12:35	06/13/24 03:19	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	06/11/24 07:40	06/13/24 00:20	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/17/24 10:31	06/17/24 23:30	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

Sample: MW-42A **Lab ID: 50375284001** Collected: 06/07/24 14:23 Received: 06/07/24 15:18 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**78.4**	mg/L	10.0	10.0	1		06/14/24 19:42		
Alkalinity,Bicarbonate (CaCO3)	**78.4**	mg/L	10.0	10.0	1		06/14/24 19:42		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/14/24 19:42		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2480**	mg/L	20.0	20.0	1		06/13/24 11:01		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.9**	Std. Units	0.10	0.10	1		06/18/24 15:21		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		06/12/24 15:46	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		06/08/24 00:52	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.27**	mg/L	0.15	0.13	1	06/20/24 10:00	06/21/24 08:58		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.3**	mg/L	1.0	0.25	1		06/17/24 23:51		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

Sample: MW-42I **Lab ID: 50375284002** Collected: 06/07/24 13:30 Received: 06/07/24 15:18 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**82.4**	mg/L	2.5	0.67	10		06/14/24 23:34	16887-00-6	
Fluoride	**0.17**	mg/L	0.10	0.017	1		06/14/24 23:18	16984-48-8	
Sulfate	**987**	mg/L	25.0	19.0	100		06/14/24 23:51	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**14800**	ug/L	100	11.4	1	06/20/24 21:55	06/21/24 09:43	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	06/20/24 21:55	06/21/24 09:43	7440-43-9	
Calcium	**450000**	ug/L	5000	284	5	06/20/24 21:55	06/21/24 11:57	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	06/20/24 21:55	06/21/24 09:43	7440-47-3	
Iron	**11600**	ug/L	100	18.1	1	06/20/24 21:55	06/21/24 09:43	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	06/20/24 21:55	06/21/24 09:43	7439-92-1	
Lithium	**57.9**	ug/L	20.0	5.1	1	06/20/24 21:55	06/21/24 09:43	7439-93-2	
Magnesium	**31200**	ug/L	1000	32.8	1	06/20/24 21:55	06/21/24 09:43	7439-95-4	
Molybdenum	**347**	ug/L	10.0	1.1	1	06/20/24 21:55	06/21/24 09:43	7439-98-7	
Potassium	**23200**	ug/L	1000	120	1	06/20/24 21:55	06/21/24 09:43	7440-09-7	
Sodium	**35900**	ug/L	1000	48.2	1	06/20/24 21:55	06/21/24 09:43	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**15000**	ug/L	100	6.2	1	06/19/24 16:03	06/20/24 02:40	7440-42-8	
Lithium, Dissolved	**57.7**	ug/L	20.0	6.8	1	06/19/24 16:03	06/20/24 02:40	7439-93-2	
Magnesium, Dissolved	**31800**	ug/L	1000	33.6	1	06/19/24 16:03	06/20/24 02:40	7439-95-4	
Molybdenum, Dissolved	**353**	ug/L	10.0	0.78	1	06/19/24 16:03	06/20/24 02:40	7439-98-7	
Potassium, Dissolved	**22900**	ug/L	1000	97.8	1	06/19/24 16:03	06/20/24 02:40	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	06/12/24 12:35	06/13/24 03:23	7440-36-0	
Arsenic	ND	ug/L	1.0	0.10	1	06/12/24 12:35	06/13/24 03:23	7440-38-2	
Barium	**32.7**	ug/L	1.0	0.062	1	06/12/24 12:35	06/13/24 03:23	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	06/12/24 12:35	06/13/24 03:23	7440-41-7	
Cobalt	ND	ug/L	1.0	0.060	1	06/12/24 12:35	06/13/24 03:23	7440-48-4	
Manganese	**3720**	ug/L	25.0	3.7	25	06/12/24 12:35	06/13/24 23:03	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	06/12/24 12:35	06/13/24 03:23	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	06/12/24 12:35	06/13/24 03:23	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	06/11/24 07:40	06/13/24 00:32	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/17/24 10:31	06/17/24 23:32	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

Sample: MW-42I **Lab ID: 50375284002** Collected: 06/07/24 13:30 Received: 06/07/24 15:18 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**240**	mg/L	10.0	10.0	1		06/14/24 19:42		
Alkalinity,Bicarbonate (CaCO3)	**240**	mg/L	10.0	10.0	1		06/14/24 19:42		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/14/24 19:42		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1710**	mg/L	20.0	20.0	1		06/13/24 11:01		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.9**	Std. Units	0.10	0.10	1		06/18/24 15:52		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		06/12/24 15:46	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		06/08/24 00:50	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.60**	mg/L	0.15	0.13	1	06/20/24 10:00	06/21/24 08:59		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.6**	mg/L	1.0	0.25	1		06/18/24 00:31		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

Sample: MW-42B **Lab ID: 50375284003** Collected: 06/07/24 11:40 Received: 06/07/24 15:18 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**25.0**	mg/L	2.5	0.67	10		06/18/24 20:25	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		06/15/24 08:34	16984-48-8	
Sulfate	**200**	mg/L	2.5	1.9	10		06/18/24 20:25	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**2520**	ug/L	100	11.4	1	06/20/24 21:55	06/21/24 09:45	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	06/20/24 21:55	06/21/24 09:45	7440-43-9	
Calcium	**223000**	ug/L	2000	113	2	06/20/24 21:55	06/21/24 11:59	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	06/20/24 21:55	06/21/24 09:45	7440-47-3	
Iron	**578**	ug/L	100	18.1	1	06/20/24 21:55	06/21/24 09:45	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	06/20/24 21:55	06/21/24 09:45	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	06/20/24 21:55	06/21/24 09:45	7439-93-2	
Magnesium	**41700**	ug/L	1000	32.8	1	06/20/24 21:55	06/21/24 09:45	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	06/20/24 21:55	06/21/24 09:45	7439-98-7	
Potassium	**2360**	ug/L	1000	120	1	06/20/24 21:55	06/21/24 09:45	7440-09-7	
Sodium	**15500**	ug/L	1000	48.2	1	06/20/24 21:55	06/21/24 09:45	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**2540**	ug/L	100	6.2	1	06/19/24 16:03	06/20/24 02:41	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	06/19/24 16:03	06/20/24 02:41	7439-93-2	
Magnesium, Dissolved	**43500**	ug/L	1000	33.6	1	06/19/24 16:03	06/20/24 02:41	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	06/19/24 16:03	06/20/24 02:41	7439-98-7	
Potassium, Dissolved	**2270**	ug/L	1000	97.8	1	06/19/24 16:03	06/20/24 02:41	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	06/12/24 12:35	06/13/24 03:27	7440-36-0	
Arsenic	ND	ug/L	1.0	0.10	1	06/12/24 12:35	06/13/24 03:27	7440-38-2	
Barium	**64.4**	ug/L	1.0	0.062	1	06/12/24 12:35	06/13/24 03:27	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	06/12/24 12:35	06/13/24 03:27	7440-41-7	
Cobalt	**2.2**	ug/L	1.0	0.060	1	06/12/24 12:35	06/13/24 03:27	7440-48-4	
Manganese	**1400**	ug/L	10.0	1.5	10	06/12/24 12:35	06/13/24 23:07	7439-96-5	
Selenium	**4.8**	ug/L	1.0	0.36	1	06/12/24 12:35	06/13/24 03:27	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	06/12/24 12:35	06/13/24 03:27	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	06/11/24 07:40	06/13/24 00:36	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/17/24 10:31	06/17/24 23:35	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

Sample: MW-42B **Lab ID: 50375284003** Collected: 06/07/24 11:40 Received: 06/07/24 15:18 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**526**	mg/L	10.0	10.0	1		06/14/24 19:42		
Alkalinity,Bicarbonate (CaCO3)	**526**	mg/L	10.0	10.0	1		06/14/24 19:42		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/14/24 19:42		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**810**	mg/L	20.0	20.0	1		06/13/24 10:51		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		06/18/24 15:53		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		06/12/24 15:46	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**1.4**	mg/L	0.10	0.013	1		06/08/24 00:45	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**1.0**	mg/L	0.15	0.13	1	06/20/24 10:00	06/21/24 08:59		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.2**	mg/L	1.0	0.25	1		06/20/24 00:52		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

Sample: DUP-14 **Lab ID: 50375284004** Collected: 06/07/24 08:00 Received: 06/07/24 15:18 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**82.5**	mg/L	2.5	0.67	10		06/15/24 00:59	16887-00-6	
Fluoride	**0.21**	mg/L	0.10	0.017	1		06/15/24 00:42	16984-48-8	
Sulfate	**992**	mg/L	25.0	19.0	100		06/15/24 01:16	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**14800**	ug/L	100	11.4	1	06/20/24 21:55	06/21/24 09:47	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	06/20/24 21:55	06/21/24 09:47	7440-43-9	
Calcium	**454000**	ug/L	5000	284	5	06/20/24 21:55	06/21/24 12:01	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	06/20/24 21:55	06/21/24 09:47	7440-47-3	
Iron	**11600**	ug/L	100	18.1	1	06/20/24 21:55	06/21/24 09:47	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	06/20/24 21:55	06/21/24 09:47	7439-92-1	
Lithium	**57.4**	ug/L	20.0	5.1	1	06/20/24 21:55	06/21/24 09:47	7439-93-2	
Magnesium	**31000**	ug/L	1000	32.8	1	06/20/24 21:55	06/21/24 09:47	7439-95-4	
Molybdenum	**348**	ug/L	10.0	1.1	1	06/20/24 21:55	06/21/24 09:47	7439-98-7	
Potassium	**23100**	ug/L	1000	120	1	06/20/24 21:55	06/21/24 09:47	7440-09-7	
Sodium	**35700**	ug/L	1000	48.2	1	06/20/24 21:55	06/21/24 09:47	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**15000**	ug/L	100	6.2	1	06/19/24 16:03	06/20/24 02:43	7440-42-8	
Lithium, Dissolved	**59.1**	ug/L	20.0	6.8	1	06/19/24 16:03	06/20/24 02:43	7439-93-2	
Magnesium, Dissolved	**33100**	ug/L	1000	33.6	1	06/19/24 16:03	06/20/24 02:43	7439-95-4	
Molybdenum, Dissolved	**337**	ug/L	10.0	0.78	1	06/19/24 16:03	06/20/24 02:43	7439-98-7	
Potassium, Dissolved	**22700**	ug/L	1000	97.8	1	06/19/24 16:03	06/20/24 02:43	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	06/12/24 12:35	06/13/24 03:39	7440-36-0	
Arsenic	ND	ug/L	1.0	0.10	1	06/12/24 12:35	06/13/24 03:39	7440-38-2	
Barium	**32.3**	ug/L	1.0	0.062	1	06/12/24 12:35	06/13/24 03:39	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	06/12/24 12:35	06/13/24 03:39	7440-41-7	
Cobalt	ND	ug/L	1.0	0.060	1	06/12/24 12:35	06/13/24 03:39	7440-48-4	
Manganese	**3700**	ug/L	25.0	3.7	25	06/12/24 12:35	06/13/24 23:11	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	06/12/24 12:35	06/13/24 03:39	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	06/12/24 12:35	06/13/24 23:23	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	06/11/24 07:40	06/13/24 00:40	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/17/24 10:31	06/17/24 23:37	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

Sample: DUP-14 **Lab ID: 50375284004** Collected: 06/07/24 08:00 Received: 06/07/24 15:18 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**240**	mg/L	10.0	10.0	1		06/14/24 19:42		
Alkalinity,Bicarbonate (CaCO3)	**240**	mg/L	10.0	10.0	1		06/14/24 19:42		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/14/24 19:42		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1730**	mg/L	20.0	20.0	1		06/13/24 10:51		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.9**	Std. Units	0.10	0.10	1		06/18/24 15:54		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		06/12/24 15:46	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		06/08/24 00:20	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.59**	mg/L	0.15	0.13	1	06/20/24 10:00	06/21/24 09:00		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.0**	mg/L	1.0	0.25	1		06/20/24 01:02		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

Sample: Field Blank 5 **Lab ID: 50375284005** Collected: 06/07/24 12:43 Received: 06/07/24 15:18 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	ND	mg/L	0.25	0.067	1		06/15/24 01:32	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		06/15/24 01:32	16984-48-8	
Sulfate	ND	mg/L	0.25	0.19	1		06/15/24 01:32	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	ND	ug/L	100	11.4	1	06/20/24 21:55	06/21/24 09:53	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	06/20/24 21:55	06/21/24 09:53	7440-43-9	
Calcium	ND	ug/L	1000	56.7	1	06/20/24 21:55	06/21/24 09:53	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	06/20/24 21:55	06/21/24 09:53	7440-47-3	
Iron	ND	ug/L	100	18.1	1	06/20/24 21:55	06/21/24 09:53	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	06/20/24 21:55	06/21/24 09:53	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	06/20/24 21:55	06/21/24 09:53	7439-93-2	
Magnesium	ND	ug/L	1000	32.8	1	06/20/24 21:55	06/21/24 09:53	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	06/20/24 21:55	06/21/24 09:53	7439-98-7	
Potassium	ND	ug/L	1000	120	1	06/20/24 21:55	06/21/24 09:53	7440-09-7	
Sodium	ND	ug/L	1000	48.2	1	06/20/24 21:55	06/21/24 09:53	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	ND	ug/L	100	6.2	1	06/19/24 16:03	06/20/24 02:45	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	06/19/24 16:03	06/20/24 02:45	7439-93-2	
Magnesium, Dissolved	ND	ug/L	1000	33.6	1	06/19/24 16:03	06/20/24 02:45	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	0.78	1	06/19/24 16:03	06/20/24 02:45	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	97.8	1	06/19/24 16:03	06/20/24 02:45	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	06/12/24 12:35	06/13/24 02:59	7440-36-0	
Arsenic	ND	ug/L	1.0	0.10	1	06/12/24 12:35	06/13/24 02:59	7440-38-2	
Barium	ND	ug/L	1.0	0.062	1	06/12/24 12:35	06/13/24 02:59	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	06/12/24 12:35	06/13/24 02:59	7440-41-7	
Cobalt	ND	ug/L	1.0	0.060	1	06/12/24 12:35	06/13/24 02:59	7440-48-4	
Manganese	ND	ug/L	1.0	0.15	1	06/12/24 12:35	06/13/24 02:59	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	06/12/24 12:35	06/13/24 02:59	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	06/12/24 12:35	06/13/24 02:59	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	06/11/24 07:40	06/13/24 00:44	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/17/24 10:31	06/17/24 23:39	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

Sample: Field Blank 5 **Lab ID: 50375284005** Collected: 06/07/24 12:43 Received: 06/07/24 15:18 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	ND	mg/L	10.0	10.0	1		06/14/24 19:42		
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/14/24 19:42		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/14/24 19:42		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		06/13/24 10:51		PL
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**8.6**	Std. Units	0.10	0.10	1		06/18/24 15:54		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		06/12/24 15:46	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		06/12/24 01:02	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	06/20/24 10:00	06/21/24 09:00		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.25	1		06/20/24 01:12		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

QC Batch: 795013
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375284001, 50375284002, 50375284003, 50375284004, 50375284005

METHOD BLANK: 3637500 Matrix: Water
Associated Lab Samples: 50375284001, 50375284002, 50375284003, 50375284004, 50375284005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	06/14/24 08:24	
Fluoride	mg/L	ND	0.10	0.017	06/14/24 08:24	
Sulfate	mg/L	ND	0.25	0.19	06/14/24 08:24	

LABORATORY CONTROL SAMPLE: 3637501

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	97	80-120	
Fluoride	mg/L	1	1.1	105	80-120	
Sulfate	mg/L	5	5.0	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3637502 3637503

Parameter	Units	50375279003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	24.8	25	25	48.5	48.4	95	94	80-120	0	15	
Fluoride	mg/L	0.15	1	1	1.3	1.3	113	113	80-120	0	15	
Sulfate	mg/L	829	500	500	1280	1270	90	89	80-120	1	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

QC Batch: 795770
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375284001, 50375284002, 50375284003, 50375284004, 50375284005

METHOD BLANK: 3641190 Matrix: Water
Associated Lab Samples: 50375284001, 50375284002, 50375284003, 50375284004, 50375284005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	06/17/24 21:17	

LABORATORY CONTROL SAMPLE: 3641191

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3641192 3641193

Parameter	Units	50375256002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.2	5.0	103	100	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

QC Batch: 795447
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375284001, 50375284002, 50375284003, 50375284004, 50375284005

METHOD BLANK: 3639687 Matrix: Water
Associated Lab Samples: 50375284001, 50375284002, 50375284003, 50375284004, 50375284005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	11.4	06/21/24 08:57	
Cadmium	ug/L	ND	2.0	0.74	06/21/24 08:57	
Calcium	ug/L	ND	1000	56.7	06/21/24 08:57	
Chromium	ug/L	ND	10.0	1.4	06/21/24 08:57	
Iron	ug/L	ND	100	18.1	06/21/24 08:57	
Lead	ug/L	ND	10.0	4.0	06/21/24 08:57	
Lithium	ug/L	ND	20.0	5.1	06/21/24 08:57	
Magnesium	ug/L	ND	1000	32.8	06/21/24 08:57	
Molybdenum	ug/L	ND	10.0	1.1	06/21/24 08:57	
Potassium	ug/L	ND	1000	120	06/21/24 08:57	
Sodium	ug/L	ND	1000	48.2	06/21/24 08:57	

LABORATORY CONTROL SAMPLE: 3639688

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	974	97	80-120	
Cadmium	ug/L	1000	998	100	80-120	
Calcium	ug/L	10000	10300	103	80-120	
Chromium	ug/L	1000	1010	101	80-120	
Iron	ug/L	10000	9870	99	80-120	
Lead	ug/L	1000	977	98	80-120	
Lithium	ug/L	1000	1040	104	80-120	
Magnesium	ug/L	10000	9840	98	80-120	
Molybdenum	ug/L	1000	1030	103	80-120	
Potassium	ug/L	10000	10100	101	80-120	
Sodium	ug/L	10000	10000	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3639689 3639690

Parameter	Units	50373253001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	33.7 mg/L	1000	1000	34100	34900	41	116	75-125	2	20	P6
Cadmium	ug/L	ND	1000	1000	977	995	98	100	75-125	2	20	
Calcium	ug/L	626 mg/L	10000	10000	622000	633000	-35	70	75-125	2	20	P6
Chromium	ug/L	0.038 mg/L	1000	1000	1000	1020	97	98	75-125	2	20	
Iron	ug/L	ND	10000	10000	9260	9380	92	93	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3639689 3639690

Parameter	Units	50373253001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	ug/L	ND	1000	1000	889	898	89	90	75-125	1	20	
Lithium	ug/L	0.12 mg/L	1000	1000	1120	1140	100	102	75-125	1	20	
Magnesium	ug/L	48.5 mg/L	10000	10000	56400	57500	79	90	75-125	2	20	
Molybdenum	ug/L	2.2 mg/L	1000	1000	3190	3270	98	106	75-125	2	20	
Potassium	ug/L	23.8 mg/L	10000	10000	33400	34000	96	102	75-125	2	20	
Sodium	ug/L	36.4 mg/L	10000	10000	45500	46400	91	99	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

QC Batch: 796441
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375284001, 50375284002, 50375284003, 50375284004, 50375284005

METHOD BLANK: 3644281 Matrix: Water
Associated Lab Samples: 50375284001, 50375284002, 50375284003, 50375284004, 50375284005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	06/20/24 02:23	
Lithium, Dissolved	ug/L	ND	20.0	6.8	06/20/24 02:23	
Magnesium, Dissolved	ug/L	ND	1000	33.6	06/20/24 02:23	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	06/20/24 02:23	
Potassium, Dissolved	ug/L	ND	1000	97.8	06/20/24 02:23	

LABORATORY CONTROL SAMPLE: 3644282

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	959	96	80-120	
Lithium, Dissolved	ug/L	1000	1010	101	80-120	
Magnesium, Dissolved	ug/L	10000	9860	99	80-120	
Molybdenum, Dissolved	ug/L	1000	1000	100	80-120	
Potassium, Dissolved	ug/L	10000	9770	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3644283 3644284

Parameter	Units	50375752003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	ND	1000	1000	1100	1050	103	98	75-125	5	20	
Lithium, Dissolved	ug/L	ND	1000	1000	1040	1020	104	102	75-125	2	20	
Magnesium, Dissolved	ug/L	27000	10000	10000	38000	36100	109	90	75-125	5	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	1060	1020	106	102	75-125	4	20	
Potassium, Dissolved	ug/L	1520	10000	10000	11600	11300	101	98	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

QC Batch: 795081
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375284001, 50375284002, 50375284003, 50375284004, 50375284005

METHOD BLANK: 3637868 Matrix: Water
Associated Lab Samples: 50375284001, 50375284002, 50375284003, 50375284004, 50375284005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.26	06/13/24 22:16	
Arsenic	ug/L	ND	1.0	0.10	06/13/24 22:16	
Barium	ug/L	ND	1.0	0.062	06/13/24 22:16	
Beryllium	ug/L	ND	0.20	0.020	06/13/24 22:16	
Cobalt	ug/L	ND	1.0	0.060	06/13/24 22:16	
Manganese	ug/L	ND	1.0	0.15	06/13/24 22:16	
Selenium	ug/L	ND	1.0	0.36	06/13/24 22:16	
Thallium	ug/L	ND	1.0	0.079	06/13/24 22:16	

LABORATORY CONTROL SAMPLE: 3637869

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.5	106	80-120	
Arsenic	ug/L	40	41.7	104	80-120	
Barium	ug/L	40	39.8	100	80-120	
Beryllium	ug/L	40	39.2	98	80-120	
Cobalt	ug/L	40	41.5	104	80-120	
Manganese	ug/L	40	42.2	105	80-120	
Selenium	ug/L	40	39.8	100	80-120	
Thallium	ug/L	40	38.9	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3637870 3637871

Parameter	Units	50375279003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	36.2	36.1	90	90	75-125	0	20	
Arsenic	ug/L	1.5	40	40	37.8	37.9	91	91	75-125	0	20	
Barium	ug/L	54.2	40	40	94.0	96.6	100	106	75-125	3	20	
Beryllium	ug/L	0.26	40	40	39.3	39.3	98	98	75-125	0	20	
Cobalt	ug/L	1.5	40	40	37.3	37.5	89	90	75-125	1	20	
Manganese	ug/L	89.5	40	40	124	124	86	87	75-125	0	20	
Selenium	ug/L	1.8	40	40	41.1	41.8	98	100	75-125	2	20	
Thallium	ug/L	ND	40	40	39.3	38.9	98	97	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

QC Batch: 794827
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375284001, 50375284002, 50375284003, 50375284004, 50375284005

METHOD BLANK: 3636657 Matrix: Water
Associated Lab Samples: 50375284001, 50375284002, 50375284003, 50375284004, 50375284005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.6	06/12/24 22:52	

LABORATORY CONTROL SAMPLE: 3636658

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	401	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3636659 3636660

Parameter	Units	50375256002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	389	398	97	99	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

QC Batch: 795889
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375284001, 50375284002, 50375284003, 50375284004, 50375284005

METHOD BLANK: 3641837 Matrix: Water
Associated Lab Samples: 50375284001, 50375284002, 50375284003, 50375284004, 50375284005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	06/14/24 19:42	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	06/14/24 19:42	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	06/14/24 19:42	

LABORATORY CONTROL SAMPLE: 3641838

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.8	106	90-110	

SAMPLE DUPLICATE: 3641839

Parameter	Units	50375284001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	78.4	79.2	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	78.4	79.2	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3641840

Parameter	Units	50375561001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	165	166	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	165	166	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

QC Batch: 795486
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375284001, 50375284002

METHOD BLANK: 3639809 Matrix: Water
Associated Lab Samples: 50375284001, 50375284002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	06/13/24 10:55	

LABORATORY CONTROL SAMPLE: 3639810

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	289	96	80-120	

SAMPLE DUPLICATE: 3639811

Parameter	Units	50375567002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2230	2080	7	10	

SAMPLE DUPLICATE: 3639812

Parameter	Units	50375284002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1710	1700	0	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

QC Batch: 795487
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375284003, 50375284004, 50375284005

METHOD BLANK: 3639814 Matrix: Water
Associated Lab Samples: 50375284003, 50375284004, 50375284005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	06/13/24 10:51	

LABORATORY CONTROL SAMPLE: 3639813

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	297	99	80-120	

SAMPLE DUPLICATE: 3639815

Parameter	Units	50375561001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	898	916	2	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

QC Batch: 796283
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50375284001

SAMPLE DUPLICATE: 3643508

Parameter	Units	50375997001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.8	7.9	1	2	H3

SAMPLE DUPLICATE: 3643509

Parameter	Units	50375284001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.9	7.0	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

QC Batch: 796286
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375284002, 50375284003, 50375284004, 50375284005

SAMPLE DUPLICATE: 3643516

Parameter	Units	50375284002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.9	7.0	1	2	H3

SAMPLE DUPLICATE: 3643517

Parameter	Units	50375622004 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.2	7.2	0	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

QC Batch: 795226
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375284001, 50375284002, 50375284003, 50375284004, 50375284005

METHOD BLANK: 3638389 Matrix: Water
Associated Lab Samples: 50375284001, 50375284002, 50375284003, 50375284004, 50375284005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	06/12/24 15:46	

LABORATORY CONTROL SAMPLE: 3638390

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3638391 3638392

Parameter	Units	50375493002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.52	0.51	102	101	90-110	0	20	

MATRIX SPIKE SAMPLE: 3638393

Parameter	Units	50375538003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.40	75	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

QC Batch: 794579
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375284004

METHOD BLANK: 3635391 Matrix: Water
Associated Lab Samples: 50375284004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	06/07/24 23:38	

LABORATORY CONTROL SAMPLE: 3635392

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.99	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3635393 3635394

Parameter	Units	50375198003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	0.96	0.97	94	95	90-110	0	20	

MATRIX SPIKE SAMPLE: 3635395

Parameter	Units	50375284004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	0.69	69	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

QC Batch: 794580
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375284001, 50375284002, 50375284003

METHOD BLANK: 3635396 Matrix: Water
Associated Lab Samples: 50375284001, 50375284002, 50375284003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	06/08/24 00:35	

LABORATORY CONTROL SAMPLE: 3635397

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3635398 3635399

Parameter	Units	50375284003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	1.4	1	1	2.4	2.4	102	102	90-110	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

QC Batch: 795164
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375284005

METHOD BLANK: 3638226 Matrix: Water
Associated Lab Samples: 50375284005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	06/12/24 00:59	

LABORATORY CONTROL SAMPLE: 3638227

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.99	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3638228 3638229

Parameter	Units	50375538002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.0	1.0	100	100	90-110	0	20	

MATRIX SPIKE SAMPLE: 3638230

Parameter	Units	50375538006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	0.27	1	1.3	101	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

QC Batch: 796748 Analysis Method: EPA 365.1
QC Batch Method: EPA 365.1 Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375284001, 50375284002, 50375284003, 50375284004, 50375284005

METHOD BLANK: 3645290 Matrix: Water
Associated Lab Samples: 50375284001, 50375284002, 50375284003, 50375284004, 50375284005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	06/21/24 08:48	

LABORATORY CONTROL SAMPLE: 3645291

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3645292 3645293

Parameter	Units	50375089001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	0.47			1.8	1.8				1		

MATRIX SPIKE SAMPLE: 3645294

Parameter	Units	50375256001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	0.62		2.0			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

QC Batch: 796033
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375284001, 50375284002

METHOD BLANK: 3642718 Matrix: Water
Associated Lab Samples: 50375284001, 50375284002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	06/17/24 14:20	

LABORATORY CONTROL SAMPLE: 3642719

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.5	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3642720 3642721

Parameter	Units	50375000007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.2	10	10	11.3	11.2	101	100	80-120	1	20	

MATRIX SPIKE SAMPLE: 3642722

Parameter	Units	50375284001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	1.3	10	10.9	96	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

QC Batch: 796566
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375284003, 50375284004, 50375284005

METHOD BLANK: 3644595 Matrix: Water
Associated Lab Samples: 50375284003, 50375284004, 50375284005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	06/19/24 22:58	

LABORATORY CONTROL SAMPLE: 3644596

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3644597 3644598

Parameter	Units	60454022003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	5.5	10	10	15.9	16.0	104	105	80-120	1	20	

MATRIX SPIKE SAMPLE: 3644599

Parameter	Units	10695922007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	4.8	10	14.6	98	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

Sample: MW-42A **Lab ID: 50375284001** Collected: 06/07/24 14:23 Received: 06/07/24 15:18 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.516 ± 0.881 (1.53) C:NA T:91%**	pCi/L	06/27/24 15:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.31 ± 0.475 (0.696) C:85% T:88%**	pCi/L	06/26/24 12:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.83 ± 1.36 (2.23)**	pCi/L	06/28/24 13:54	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

Sample: MW-42I **Lab ID: 50375284002** Collected: 06/07/24 13:30 Received: 06/07/24 15:18 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.780 ± 0.749 (1.18) C:NA T:93%**	pCi/L	06/27/24 15:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.983 ± 0.475 (0.837) C:82% T:87%**	pCi/L	06/26/24 12:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.76 ± 1.22 (2.02)**	pCi/L	06/28/24 13:54	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

Sample: MW-42B **Lab ID: 50375284003** Collected: 06/07/24 11:40 Received: 06/07/24 15:18 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.225 ± 0.570 (1.25) C:NA T:89%**	pCi/L	06/27/24 15:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.684 ± 0.329 (0.540) C:86% T:86%**	pCi/L	06/26/24 12:30	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.684 ± 0.899 (1.79)**	pCi/L	06/28/24 13:54	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

Sample: DUP-14 **Lab ID: 50375284004** Collected: 06/07/24 08:00 Received: 06/07/24 15:18 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.456 ± 0.598 (0.996) C:NA T:87%**	pCi/L	06/27/24 15:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.02 ± 0.396 (0.574) C:86% T:83%**	pCi/L	06/26/24 12:30	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.48 ± 0.994 (1.57)**	pCi/L	06/28/24 13:54	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

Sample: Field Blank 5 **Lab ID: 50375284005** Collected: 06/07/24 12:43 Received: 06/07/24 15:18 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.642 ± 0.670 (1.48) C:NA T:92%**	pCi/L	06/27/24 15:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.137 ± 0.286 (0.632) C:82% T:89%**	pCi/L	06/26/24 12:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.137 ± 0.956 (2.11)**	pCi/L	06/28/24 13:54	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

QC Batch: 675254
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50375284001, 50375284002, 50375284003, 50375284004, 50375284005

METHOD BLANK: 3287812 Matrix: Water
Associated Lab Samples: 50375284001, 50375284002, 50375284003, 50375284004, 50375284005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0576 ± 0.263 (0.156) C:NA T:89%	pCi/L	06/27/24 16:41	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

QC Batch: 675256
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50375284001, 50375284002, 50375284003, 50375284004, 50375284005

METHOD BLANK: 3287815 Matrix: Water
Associated Lab Samples: 50375284001, 50375284002, 50375284003, 50375284004, 50375284005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.531 ± 0.306 (0.546) C:85% T:93%	pCi/L	06/26/24 12:30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
PL	The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50375284001	**MW-42A**	EPA 9056	795013		
50375284002	**MW-42I**	EPA 9056	795013		
50375284003	**MW-42B**	EPA 9056	795013		
50375284004	**DUP-14**	EPA 9056	795013		
50375284005	**Field Blank 5**	EPA 9056	795013		
50375284001	**MW-42A**	EPA 3010	795447	EPA 6010	796981
50375284002	**MW-42I**	EPA 3010	795447	EPA 6010	796981
50375284003	**MW-42B**	EPA 3010	795447	EPA 6010	796981
50375284004	**DUP-14**	EPA 3010	795447	EPA 6010	796981
50375284005	**Field Blank 5**	EPA 3010	795447	EPA 6010	796981
50375284001	**MW-42A**	EPA 3010	796441	EPA 6010	796728
50375284002	**MW-42I**	EPA 3010	796441	EPA 6010	796728
50375284003	**MW-42B**	EPA 3010	796441	EPA 6010	796728
50375284004	**DUP-14**	EPA 3010	796441	EPA 6010	796728
50375284005	**Field Blank 5**	EPA 3010	796441	EPA 6010	796728
50375284001	**MW-42A**	EPA 200.2	795081	EPA 6020	795417
50375284002	**MW-42I**	EPA 200.2	795081	EPA 6020	795417
50375284003	**MW-42B**	EPA 200.2	795081	EPA 6020	795417
50375284004	**DUP-14**	EPA 200.2	795081	EPA 6020	795417
50375284005	**Field Blank 5**	EPA 200.2	795081	EPA 6020	795417
50375284001	**MW-42A**	EPA 200.2	794827	EPA 6020	795132
50375284002	**MW-42I**	EPA 200.2	794827	EPA 6020	795132
50375284003	**MW-42B**	EPA 200.2	794827	EPA 6020	795132
50375284004	**DUP-14**	EPA 200.2	794827	EPA 6020	795132
50375284005	**Field Blank 5**	EPA 200.2	794827	EPA 6020	795132
50375284001	**MW-42A**	EPA 7470	795770	EPA 7470	796160
50375284002	**MW-42I**	EPA 7470	795770	EPA 7470	796160
50375284003	**MW-42B**	EPA 7470	795770	EPA 7470	796160
50375284004	**DUP-14**	EPA 7470	795770	EPA 7470	796160
50375284005	**Field Blank 5**	EPA 7470	795770	EPA 7470	796160
50375284001	**MW-42A**	EPA 903.1	675254		
50375284002	**MW-42I**	EPA 903.1	675254		
50375284003	**MW-42B**	EPA 903.1	675254		
50375284004	**DUP-14**	EPA 903.1	675254		
50375284005	**Field Blank 5**	EPA 903.1	675254		
50375284001	**MW-42A**	EPA 904.0	675256		
50375284002	**MW-42I**	EPA 904.0	675256		
50375284003	**MW-42B**	EPA 904.0	675256		
50375284004	**DUP-14**	EPA 904.0	675256		
50375284005	**Field Blank 5**	EPA 904.0	675256		
50375284001	**MW-42A**	Total Radium Calculation	679219		
50375284002	**MW-42I**	Total Radium Calculation	679219		
50375284003	**MW-42B**	Total Radium Calculation	679219		
50375284004	**DUP-14**	Total Radium Calculation	679219		
50375284005	**Field Blank 5**	Total Radium Calculation	679219		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P4R4
Pace Project No.: 50375284

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50375284001	**MW-42A**	SM 2320B	795889		
50375284002	**MW-42I**	SM 2320B	795889		
50375284003	**MW-42B**	SM 2320B	795889		
50375284004	**DUP-14**	SM 2320B	795889		
50375284005	**Field Blank 5**	SM 2320B	795889		
50375284001	**MW-42A**	SM 2540C	795486		
50375284002	**MW-42I**	SM 2540C	795486		
50375284003	**MW-42B**	SM 2540C	795487		
50375284004	**DUP-14**	SM 2540C	795487		
50375284005	**Field Blank 5**	SM 2540C	795487		
50375284001	**MW-42A**	SM 4500-H+B	796283		
50375284002	**MW-42I**	SM 4500-H+B	796286		
50375284003	**MW-42B**	SM 4500-H+B	796286		
50375284004	**DUP-14**	SM 4500-H+B	796286		
50375284005	**Field Blank 5**	SM 4500-H+B	796286		
50375284001	**MW-42A**	SM 4500-S2-D	795226		
50375284002	**MW-42I**	SM 4500-S2-D	795226		
50375284003	**MW-42B**	SM 4500-S2-D	795226		
50375284004	**DUP-14**	SM 4500-S2-D	795226		
50375284005	**Field Blank 5**	SM 4500-S2-D	795226		
50375284001	**MW-42A**	EPA 353.2	794580		
50375284002	**MW-42I**	EPA 353.2	794580		
50375284003	**MW-42B**	EPA 353.2	794580		
50375284004	**DUP-14**	EPA 353.2	794579		
50375284005	**Field Blank 5**	EPA 353.2	795164		
50375284001	**MW-42A**	EPA 365.1	796748	EPA 365.1	797001
50375284002	**MW-42I**	EPA 365.1	796748	EPA 365.1	797001
50375284003	**MW-42B**	EPA 365.1	796748	EPA 365.1	797001
50375284004	**DUP-14**	EPA 365.1	796748	EPA 365.1	797001
50375284005	**Field Blank 5**	EPA 365.1	796748	EPA 365.1	797001
50375284001	**MW-42A**	SM 5310C	796033		
50375284002	**MW-42I**	SM 5310C	796033		
50375284003	**MW-42B**	SM 5310C	796566		
50375284004	**DUP-14**	SM 5310C	796566		
50375284005	**Field Blank 5**	SM 5310C	796566		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request Do

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must b

WO# : 50375284

50375284

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam	Regulatory Agency
Address:	7988 Centerpoint Drive Suite 100 Indianapolis, IN 46256	Copy To:		Company Name:	Atlas Indianapolis	
				Address:		
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:		
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P4 May 2024	Pace Project Manager:	Will Statz	State / Location
Requested Due Date:		Project #:	P4R4	Pace Profile #:	10498/60	IN

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO3 Wet	(Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity,pH	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum				Residual Chlorine (Y/N)	
	MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																		Y			Y								
1	MW-42A	WT	G	6/7/24	1423				10	3	2	4		1																	001
2	MW-42I	WT	G		13:30																										002
3	MW-42B	WT	G		1140																										003
4	DUP-14	WT	G		—																										004
5																															005 on LL
6																															
7																															
8																															
9																															
10																															
11																															
12																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
* Metals: 6010 (B, Cd, Cr, Fe, Pb, Mo, Ca, Mg, Na, K, Li) (11)	Mohammed Bazlamit	6/7/24	1518	Marcus Winfield	6/7/24	1518	see sure	Y	NA	Y
6020 (Be, Mn, Co, As, Se, Sb, Ba, Tl) (8), 7470 (Hg)										
** Dissolved FF 6010 (B, Mo, Mg, K, Li) (5) FF 6020 (Al) (1)										
Rad 226/2228 to Pace PA										

MPW 6/7/24

SAMPLER NAME AND SIGNATURE					
PRINT Name of SAMPLER:	Mohammed Bazlamit		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
SIGNATURE of SAMPLER:		DATE Signed: 6/7/24				

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 6/7/24 1825 - MDW

1. **Courier:** ☐ FED EX ☐ UPS ☑ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☐ Yes ☑ No
   (If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G (H)
4. **Cooler Temperature(s):** (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

3.8/3.6	3.7/3.5		

5. **Packing Material:** ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **Was the PM notified of out of temp cooler?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C
8. **EZ Bottle Order?** ☐ Yes ☑ No
   If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis: Nitrates	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID		✓	Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS: MW-42I containers labeled with time of 1350, MW-42B containers labeled with time of 1155 & COC
- Received containers not on COC, see container count
- MDW 6/7/24

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1													1			2	1	2	1	1	1		1				WT	✓	✓		
2													↓			↓	↓	↓	↓	↓	↓		↓					↓	↓		
3													↓			↓	↓	↓	↓	↓	↓		↓					↓	↓		
4													↓			↓	↓	↓	↓	↓	↓		↓				↓	↓	↓		
5																															
6								Fei Field Blank 5					1			2	1	2	1	1	1		1				WT	✓	✓		
7										617124																					
8										1243																					
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

August 01, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024
Pace Project No.: 50375493

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on June 11, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024
Pace Project No.: 50375493

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024
Pace Project No.: 50375493

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50375493001	**MW-26A**	Water	06/10/24 15:50	06/11/24 09:15
50375493002	**MW-26I**	Water	06/10/24 15:21	06/11/24 09:15

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024
Pace Project No.: 50375493

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50375493001	**MW-26A**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	NWB	5	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	MTM	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50375493002	**MW-26I**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	11	PASI-I
		EPA 6010	NWB	5	PASI-I
		EPA 6020	MTM	8	PASI-I
		EPA 6020	MTM	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024
Pace Project No.: 50375493

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50375493001	**MW-26A**					
EPA 9056	Chloride	109	mg/L	2.5	06/15/24 02:40	
EPA 9056	Sulfate	1320	mg/L	25.0	06/15/24 02:57	
EPA 6010	Boron	21700	ug/L	100	06/20/24 00:29	
EPA 6010	Calcium	542000	ug/L	5000	06/20/24 00:33	
EPA 6010	Iron	9080	ug/L	100	06/20/24 00:29	
EPA 6010	Magnesium	26200	ug/L	1000	06/20/24 00:29	
EPA 6010	Molybdenum	1390	ug/L	10.0	06/20/24 00:29	
EPA 6010	Potassium	10800	ug/L	1000	06/20/24 00:29	
EPA 6010	Sodium	30800	ug/L	1000	06/20/24 00:29	
EPA 6010	Boron, Dissolved	21300	ug/L	100	06/20/24 12:43	
EPA 6010	Magnesium, Dissolved	23900	ug/L	1000	06/20/24 12:43	
EPA 6010	Molybdenum, Dissolved	1380	ug/L	10.0	06/20/24 12:43	
EPA 6010	Potassium, Dissolved	10800	ug/L	1000	06/20/24 12:43	
EPA 6020	Arsenic	1.9	ug/L	1.0	06/13/24 03:43	
EPA 6020	Barium	30.0	ug/L	1.0	06/13/24 03:43	
EPA 6020	Cobalt	1.0	ug/L	1.0	06/13/24 03:43	
EPA 6020	Manganese	2080	ug/L	20.0	06/13/24 03:03	
EPA 903.1	Radium-226	0.000 ± 0.868 (1.70) C:NA T:89%	pCi/L		06/28/24 13:57	
EPA 904.0	Radium-228	0.811 ± 0.390 (0.662) C:83% T:88%	pCi/L		06/27/24 14:33	
Total Radium Calculation	Total Radium	0.811 ± 1.26 (2.36)	pCi/L		07/01/24 13:33	
SM 2320B	Alkalinity, Total as CaCO3	122	mg/L	10.0	06/14/24 19:42	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	122	mg/L	10.0	06/14/24 19:42	
SM 2540C	Total Dissolved Solids	2170	mg/L	20.0	06/14/24 09:14	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	06/18/24 15:56	H3
EPA 365.1	Phosphate as P04	0.37	mg/L	0.15	06/21/24 09:11	
SM 5310C	Dissolved Organic Carbon	2.2	mg/L	1.0	06/20/24 04:47	
50375493002	**MW-26I**					
EPA 9056	Chloride	63.2	mg/L	2.5	06/15/24 04:04	
EPA 9056	Sulfate	547	mg/L	25.0	06/18/24 20:41	
EPA 6010	Boron	8370	ug/L	100	06/20/24 00:31	
EPA 6010	Calcium	277000	ug/L	2000	06/20/24 00:35	
EPA 6010	Iron	4970	ug/L	100	06/20/24 00:31	
EPA 6010	Lithium	24.5	ug/L	20.0	06/20/24 00:31	
EPA 6010	Magnesium	37400	ug/L	1000	06/20/24 00:31	
EPA 6010	Molybdenum	333	ug/L	10.0	06/20/24 00:31	
EPA 6010	Potassium	9380	ug/L	1000	06/20/24 00:31	
EPA 6010	Sodium	29900	ug/L	1000	06/20/24 00:31	
EPA 6010	Boron, Dissolved	8090	ug/L	100	06/20/24 12:45	
EPA 6010	Lithium, Dissolved	22.6	ug/L	20.0	06/20/24 12:45	
EPA 6010	Magnesium, Dissolved	36300	ug/L	1000	06/20/24 12:45	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024
Pace Project No.: 50375493

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50375493002	**MW-26I**					
EPA 6010	Molybdenum, Dissolved	321	ug/L	10.0	06/20/24 12:45	
EPA 6010	Potassium, Dissolved	9290	ug/L	1000	06/20/24 12:45	
EPA 6020	Arsenic	1.4	ug/L	1.0	06/13/24 03:47	
EPA 6020	Barium	32.4	ug/L	1.0	06/13/24 03:47	
EPA 6020	Manganese	1820	ug/L	20.0	06/13/24 03:07	
EPA 903.1	Radium-226	0.219 ± 0.796 (1.47) C:NA T:97%	pCi/L		06/28/24 13:57	
EPA 904.0	Radium-228	1.37 ± 0.509 (0.735) C:82% T:80%	pCi/L		06/27/24 14:32	
Total Radium Calculation	Total Radium	1.59 ± 1.31 (2.21)	pCi/L		07/01/24 13:33	
SM 2320B	Alkalinity, Total as CaCO3	292	mg/L	10.0	06/14/24 19:42	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	292	mg/L	10.0	06/14/24 19:42	
SM 2540C	Total Dissolved Solids	1140	mg/L	20.0	06/14/24 09:14	
SM 4500-H+B	pH at 25 Degrees C	7.0	Std. Units	0.10	06/18/24 15:57	H3
EPA 353.2	Nitrogen, Nitrate	0.10	mg/L	0.10	06/12/24 01:49	
EPA 365.1	Phosphate as P04	0.35	mg/L	0.15	06/21/24 09:12	
SM 5310C	Dissolved Organic Carbon	1.8	mg/L	1.0	06/20/24 04:57	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024
Pace Project No.: 50375493

Sample: MW-26A **Lab ID: 50375493001** Collected: 06/10/24 15:50 Received: 06/11/24 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**109**	mg/L	2.5	0.67	10		06/15/24 02:40	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		06/15/24 02:23	16984-48-8	
Sulfate	**1320**	mg/L	25.0	19.0	100		06/15/24 02:57	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**21700**	ug/L	100	6.2	1	06/18/24 16:15	06/20/24 00:29	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	06/18/24 16:15	06/20/24 00:29	7440-43-9	
Calcium	**542000**	ug/L	5000	338	5	06/18/24 16:15	06/20/24 00:33	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	06/18/24 16:15	06/20/24 00:29	7440-47-3	
Iron	**9080**	ug/L	100	30.0	1	06/18/24 16:15	06/20/24 00:29	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	06/18/24 16:15	06/20/24 00:29	7439-92-1	
Lithium	ND	ug/L	20.0	6.8	1	06/18/24 16:15	06/20/24 00:29	7439-93-2	
Magnesium	**26200**	ug/L	1000	33.6	1	06/18/24 16:15	06/20/24 00:29	7439-95-4	
Molybdenum	**1390**	ug/L	10.0	0.78	1	06/18/24 16:15	06/20/24 00:29	7439-98-7	
Potassium	**10800**	ug/L	1000	97.8	1	06/18/24 16:15	06/20/24 00:29	7440-09-7	
Sodium	**30800**	ug/L	1000	54.8	1	06/18/24 16:15	06/20/24 00:29	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**21300**	ug/L	100	11.4	1	06/19/24 16:02	06/20/24 12:43	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	06/19/24 16:02	06/20/24 12:43	7439-93-2	
Magnesium, Dissolved	**23900**	ug/L	1000	32.8	1	06/19/24 16:02	06/20/24 12:43	7439-95-4	
Molybdenum, Dissolved	**1380**	ug/L	10.0	1.1	1	06/19/24 16:02	06/20/24 12:43	7439-98-7	
Potassium, Dissolved	**10800**	ug/L	1000	120	1	06/19/24 16:02	06/20/24 12:43	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	06/12/24 12:35	06/13/24 03:43	7440-36-0	
Arsenic	**1.9**	ug/L	1.0	0.10	1	06/12/24 12:35	06/13/24 03:43	7440-38-2	
Barium	**30.0**	ug/L	1.0	0.062	1	06/12/24 12:35	06/13/24 03:43	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	06/12/24 12:35	06/13/24 03:43	7440-41-7	
Cobalt	**1.0**	ug/L	1.0	0.060	1	06/12/24 12:35	06/13/24 03:43	7440-48-4	
Manganese	**2080**	ug/L	20.0	3.0	20	06/12/24 12:35	06/13/24 03:03	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	06/12/24 12:35	06/13/24 03:43	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	06/12/24 12:35	06/13/24 23:27	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	06/12/24 12:35	06/13/24 23:55	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/20/24 10:49	06/20/24 19:40	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024
Pace Project No.: 50375493

Sample: MW-26A **Lab ID: 50375493001** Collected: 06/10/24 15:50 Received: 06/11/24 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**122**	mg/L	10.0	10.0	1		06/14/24 19:42		
Alkalinity,Bicarbonate (CaCO3)	**122**	mg/L	10.0	10.0	1		06/14/24 19:42		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/14/24 19:42		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2170**	mg/L	20.0	20.0	1		06/14/24 09:14		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		06/18/24 15:56		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		06/12/24 15:46	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		06/12/24 01:51	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.37**	mg/L	0.15	0.13	1	06/20/24 10:00	06/21/24 09:11		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.2**	mg/L	1.0	0.25	1		06/20/24 04:47		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024
Pace Project No.: 50375493

Sample: MW-26I **Lab ID: 50375493002** Collected: 06/10/24 15:21 Received: 06/11/24 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**63.2**	mg/L	2.5	0.67	10		06/15/24 04:04	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		06/15/24 03:47	16984-48-8	
Sulfate	**547**	mg/L	25.0	19.0	100		06/18/24 20:41	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**8370**	ug/L	100	6.2	1	06/18/24 16:15	06/20/24 00:31	7440-42-8	
Cadmium	ND	ug/L	2.0	0.60	1	06/18/24 16:15	06/20/24 00:31	7440-43-9	
Calcium	**277000**	ug/L	2000	135	2	06/18/24 16:15	06/20/24 00:35	7440-70-2	
Chromium	ND	ug/L	10.0	0.42	1	06/18/24 16:15	06/20/24 00:31	7440-47-3	
Iron	**4970**	ug/L	100	30.0	1	06/18/24 16:15	06/20/24 00:31	7439-89-6	
Lead	ND	ug/L	10.0	2.5	1	06/18/24 16:15	06/20/24 00:31	7439-92-1	
Lithium	**24.5**	ug/L	20.0	6.8	1	06/18/24 16:15	06/20/24 00:31	7439-93-2	
Magnesium	**37400**	ug/L	1000	33.6	1	06/18/24 16:15	06/20/24 00:31	7439-95-4	
Molybdenum	**333**	ug/L	10.0	0.78	1	06/18/24 16:15	06/20/24 00:31	7439-98-7	
Potassium	**9380**	ug/L	1000	97.8	1	06/18/24 16:15	06/20/24 00:31	7440-09-7	
Sodium	**29900**	ug/L	1000	54.8	1	06/18/24 16:15	06/20/24 00:31	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**8090**	ug/L	100	11.4	1	06/19/24 16:02	06/20/24 12:45	7440-42-8	
Lithium, Dissolved	**22.6**	ug/L	20.0	5.1	1	06/19/24 16:02	06/20/24 12:45	7439-93-2	
Magnesium, Dissolved	**36300**	ug/L	1000	32.8	1	06/19/24 16:02	06/20/24 12:45	7439-95-4	
Molybdenum, Dissolved	**321**	ug/L	10.0	1.1	1	06/19/24 16:02	06/20/24 12:45	7439-98-7	
Potassium, Dissolved	**9290**	ug/L	1000	120	1	06/19/24 16:02	06/20/24 12:45	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.26	1	06/12/24 12:35	06/13/24 03:47	7440-36-0	
Arsenic	**1.4**	ug/L	1.0	0.10	1	06/12/24 12:35	06/13/24 03:47	7440-38-2	
Barium	**32.4**	ug/L	1.0	0.062	1	06/12/24 12:35	06/13/24 03:47	7440-39-3	
Beryllium	ND	ug/L	0.20	0.020	1	06/12/24 12:35	06/13/24 03:47	7440-41-7	
Cobalt	ND	ug/L	1.0	0.060	1	06/12/24 12:35	06/13/24 03:47	7440-48-4	
Manganese	**1820**	ug/L	20.0	3.0	20	06/12/24 12:35	06/13/24 03:07	7439-96-5	
Selenium	ND	ug/L	1.0	0.36	1	06/12/24 12:35	06/13/24 03:47	7782-49-2	
Thallium	ND	ug/L	1.0	0.079	1	06/12/24 12:35	06/13/24 23:31	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	2.6	1	06/12/24 12:35	06/13/24 23:59	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/20/24 10:49	06/20/24 19:42	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024
Pace Project No.: 50375493

Sample: MW-26I **Lab ID: 50375493002** Collected: 06/10/24 15:21 Received: 06/11/24 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**292**	mg/L	10.0	10.0	1		06/14/24 19:42		
Alkalinity,Bicarbonate (CaCO3)	**292**	mg/L	10.0	10.0	1		06/14/24 19:42		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/14/24 19:42		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1140**	mg/L	20.0	20.0	1		06/14/24 09:14		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.0**	Std. Units	0.10	0.10	1		06/18/24 15:57		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		06/12/24 15:46	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**0.10**	mg/L	0.10	0.013	1		06/12/24 01:49	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.35**	mg/L	0.15	0.13	1	06/20/24 10:00	06/21/24 09:12		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**1.8**	mg/L	1.0	0.25	1		06/20/24 04:57		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375493

QC Batch: 795013
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375493001, 50375493002

METHOD BLANK: 3637500 Matrix: Water
Associated Lab Samples: 50375493001, 50375493002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	06/14/24 08:24	
Fluoride	mg/L	ND	0.10	0.017	06/14/24 08:24	
Sulfate	mg/L	ND	0.25	0.19	06/14/24 08:24	

LABORATORY CONTROL SAMPLE: 3637501

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	97	80-120	
Fluoride	mg/L	1	1.1	105	80-120	
Sulfate	mg/L	5	5.0	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3637502 3637503

Parameter	Units	50375279003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	24.8	25	25	48.5	48.4	95	94	80-120	0	15	
Fluoride	mg/L	0.15	1	1	1.3	1.3	113	113	80-120	0	15	
Sulfate	mg/L	829	500	500	1280	1270	90	89	80-120	1	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375493

QC Batch: 796092
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375493001, 50375493002

METHOD BLANK: 3642905 Matrix: Water
Associated Lab Samples: 50375493001, 50375493002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	06/20/24 19:35	

LABORATORY CONTROL SAMPLE: 3642906

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.2	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3642907 3642908

Parameter	Units	50375538002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.8	5.0	97	100	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375493

QC Batch: 795443
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375493001, 50375493002

METHOD BLANK: 3639669 Matrix: Water
Associated Lab Samples: 50375493001, 50375493002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	6.2	06/19/24 23:37	
Cadmium	ug/L	ND	2.0	0.60	06/19/24 23:37	
Calcium	ug/L	ND	1000	67.7	06/19/24 23:37	
Chromium	ug/L	ND	10.0	0.42	06/19/24 23:37	
Iron	ug/L	ND	100	30.0	06/19/24 23:37	
Lead	ug/L	ND	10.0	2.5	06/19/24 23:37	
Lithium	ug/L	ND	20.0	6.8	06/19/24 23:37	
Magnesium	ug/L	ND	1000	33.6	06/19/24 23:37	
Molybdenum	ug/L	ND	10.0	0.78	06/19/24 23:37	
Potassium	ug/L	ND	1000	97.8	06/19/24 23:37	
Sodium	ug/L	ND	1000	54.8	06/19/24 23:37	

LABORATORY CONTROL SAMPLE: 3639670

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	991	99	80-120	
Cadmium	ug/L	1000	1010	101	80-120	
Calcium	ug/L	10000	10400	104	80-120	
Chromium	ug/L	1000	1020	102	80-120	
Iron	ug/L	10000	10300	103	80-120	
Lead	ug/L	1000	996	100	80-120	
Lithium	ug/L	1000	1020	102	80-120	
Magnesium	ug/L	10000	10100	101	80-120	
Molybdenum	ug/L	1000	1030	103	80-120	
Potassium	ug/L	10000	9900	99	80-120	
Sodium	ug/L	10000	9890	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3639671 3639672

Parameter	Units	50375253002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	ND	1000	1000	1020	1020	99	98	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	996	987	100	99	75-125	1	20	
Calcium	ug/L	103 mg/L	10000	10000	113000	113000	100	101	75-125	0	20	
Chromium	ug/L	ND	1000	1000	987	982	99	98	75-125	1	20	
Iron	ug/L	0.99 mg/L	10000	10000	10900	10800	99	99	75-125	0	20	
Lead	ug/L	ND	1000	1000	952	943	95	94	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375493

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3639671 3639672

Parameter	Units	50375253002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	ND	1000	1000	995	1010	99	101	75-125	2	20	
Magnesium	ug/L	25.4 mg/L	10000	10000	35300	35200	99	98	75-125	0	20	
Molybdenum	ug/L	ND	1000	1000	1010	1010	101	101	75-125	1	20	
Potassium	ug/L	2.7 mg/L	10000	10000	12500	12700	98	100	75-125	2	20	
Sodium	ug/L	63.2 mg/L	10000	10000	71700	73100	85	99	75-125	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3639673 3639674

Parameter	Units	50375279003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	ND	1000	1000	1040	1090	99	103	75-125	4	20	
Cadmium	ug/L	ND	1000	1000	993	1040	99	104	75-125	4	20	
Calcium	ug/L	274 mg/L	10000	10000	275000	287000	4	128	75-125	4	20	E,P6
Chromium	ug/L	0.013 mg/L	1000	1000	990	1030	98	102	75-125	4	20	
Iron	ug/L	10.5 mg/L	10000	10000	19500	19800	89	93	75-125	2	20	
Lead	ug/L	ND	1000	1000	937	971	93	97	75-125	4	20	
Lithium	ug/L	0.039 mg/L	1000	1000	1030	1100	99	107	75-125	7	20	
Magnesium	ug/L	117 mg/L	10000	10000	123000	128000	60	118	75-125	5	20	P6
Molybdenum	ug/L	ND	1000	1000	995	1040	100	104	75-125	5	20	
Potassium	ug/L	5.8 mg/L	10000	10000	16500	17600	106	118	75-125	7	20	
Sodium	ug/L	27.1 mg/L	10000	10000	35400	37500	83	104	75-125	6	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375493

QC Batch: 796442
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375493001, 50375493002

METHOD BLANK: 3644285 Matrix: Water
Associated Lab Samples: 50375493001, 50375493002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	11.4	06/20/24 12:30	
Lithium, Dissolved	ug/L	ND	20.0	5.1	06/20/24 12:30	
Magnesium, Dissolved	ug/L	ND	1000	32.8	06/20/24 12:30	
Molybdenum, Dissolved	ug/L	ND	10.0	1.1	06/20/24 12:30	
Potassium, Dissolved	ug/L	ND	1000	120	06/20/24 12:30	

LABORATORY CONTROL SAMPLE: 3644286

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	934	93	80-120	
Lithium, Dissolved	ug/L	1000	1000	100	80-120	
Magnesium, Dissolved	ug/L	10000	9600	96	80-120	
Molybdenum, Dissolved	ug/L	1000	988	99	80-120	
Potassium, Dissolved	ug/L	10000	9740	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3644287 3644288

Parameter	Units	50375407003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	312	1000	1000	1300	1280	99	97	75-125	2	20	
Lithium, Dissolved	ug/L	ND	1000	1000	1020	1000	102	100	75-125	2	20	
Magnesium, Dissolved	ug/L	13700	10000	10000	23200	22800	95	91	75-125	2	20	
Molybdenum, Dissolved	ug/L	14.9	1000	1000	1030	1020	102	100	75-125	1	20	
Potassium, Dissolved	ug/L	4330	10000	10000	14200	13900	99	96	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375493

QC Batch: 795081
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375493001, 50375493002

METHOD BLANK: 3637868 Matrix: Water
Associated Lab Samples: 50375493001, 50375493002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.26	06/13/24 22:16	
Arsenic	ug/L	ND	1.0	0.10	06/13/24 22:16	
Barium	ug/L	ND	1.0	0.062	06/13/24 22:16	
Beryllium	ug/L	ND	0.20	0.020	06/13/24 22:16	
Cobalt	ug/L	ND	1.0	0.060	06/13/24 22:16	
Manganese	ug/L	ND	1.0	0.15	06/13/24 22:16	
Selenium	ug/L	ND	1.0	0.36	06/13/24 22:16	
Thallium	ug/L	ND	1.0	0.079	06/13/24 22:16	

LABORATORY CONTROL SAMPLE: 3637869

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	42.5	106	80-120	
Arsenic	ug/L	40	41.7	104	80-120	
Barium	ug/L	40	39.8	100	80-120	
Beryllium	ug/L	40	39.2	98	80-120	
Cobalt	ug/L	40	41.5	104	80-120	
Manganese	ug/L	40	42.2	105	80-120	
Selenium	ug/L	40	39.8	100	80-120	
Thallium	ug/L	40	38.9	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3637870 3637871

Parameter	Units	50375279003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	40	40	36.2	36.1	90	90	75-125	0	20	
Arsenic	ug/L	1.5	40	40	37.8	37.9	91	91	75-125	0	20	
Barium	ug/L	54.2	40	40	94.0	96.6	100	106	75-125	3	20	
Beryllium	ug/L	0.26	40	40	39.3	39.3	98	98	75-125	0	20	
Cobalt	ug/L	1.5	40	40	37.3	37.5	89	90	75-125	1	20	
Manganese	ug/L	89.5	40	40	124	124	86	87	75-125	0	20	
Selenium	ug/L	1.8	40	40	41.1	41.8	98	100	75-125	2	20	
Thallium	ug/L	ND	40	40	39.3	38.9	98	97	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375493

QC Batch: 795083
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375493001, 50375493002

METHOD BLANK: 3637877 Matrix: Water
Associated Lab Samples: 50375493001, 50375493002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	2.6	06/13/24 23:47	

LABORATORY CONTROL SAMPLE: 3637878

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	387	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3637879 3637880

Parameter	Units	50375030007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	403	402	100	100	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375493

QC Batch: 795889
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375493001, 50375493002

METHOD BLANK: 3641837 Matrix: Water
Associated Lab Samples: 50375493001, 50375493002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	06/14/24 19:42	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	06/14/24 19:42	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	06/14/24 19:42	

LABORATORY CONTROL SAMPLE: 3641838

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.8	106	90-110	

SAMPLE DUPLICATE: 3641839

Parameter	Units	50375284001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	78.4	79.2	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	78.4	79.2	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3641840

Parameter	Units	50375561001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	165	166	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	165	166	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375493

QC Batch: 795715
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375493001, 50375493002

METHOD BLANK: 3640988 Matrix: Water
Associated Lab Samples: 50375493001, 50375493002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	06/14/24 09:03	

LABORATORY CONTROL SAMPLE: 3640989

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	300	100	80-120	

SAMPLE DUPLICATE: 3640990

Parameter	Units	50375433001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	3320	3380	2	10	

SAMPLE DUPLICATE: 3640991

Parameter	Units	50375538002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	450	455	1	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375493

QC Batch: 796286
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375493001, 50375493002

SAMPLE DUPLICATE: 3643516

Parameter	Units	50375284002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.9	7.0	1	2	H3

SAMPLE DUPLICATE: 3643517

Parameter	Units	50375622004 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.2	7.2	0	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375493

QC Batch: 795226
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375493001, 50375493002

METHOD BLANK: 3638389 Matrix: Water
Associated Lab Samples: 50375493001, 50375493002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	06/12/24 15:46	

LABORATORY CONTROL SAMPLE: 3638390

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3638391 3638392

Parameter	Units	50375493002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.52	0.51	102	101	90-110	0	20	

MATRIX SPIKE SAMPLE: 3638393

Parameter	Units	50375538003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.40	75	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375493

QC Batch: 795164
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375493001, 50375493002

METHOD BLANK: 3638226 Matrix: Water
Associated Lab Samples: 50375493001, 50375493002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	06/12/24 00:59	

LABORATORY CONTROL SAMPLE: 3638227

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.99	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3638228 3638229

Parameter	Units	50375538002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.0	1.0	100	100	90-110	0	20	

MATRIX SPIKE SAMPLE: 3638230

Parameter	Units	50375538006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	0.27	1	1.3	101	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375493

QC Batch: 796751
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375493001, 50375493002

METHOD BLANK: 3645305 Matrix: Water
Associated Lab Samples: 50375493001, 50375493002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	06/21/24 09:05	

LABORATORY CONTROL SAMPLE: 3645306

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3645307 3645308

Parameter	Units	50375476003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	10.6			11.9	11.7				2		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375493

QC Batch: 796566
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375493001, 50375493002

METHOD BLANK: 3644595 Matrix: Water
Associated Lab Samples: 50375493001, 50375493002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	06/19/24 22:58	

LABORATORY CONTROL SAMPLE: 3644596

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	10.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3644597 3644598

Parameter	Units	60454022003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	5.5	10	10	15.9	16.0	104	105	80-120	1	20	

MATRIX SPIKE SAMPLE: 3644599

Parameter	Units	10695922007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	4.8	10	14.6	98	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024
Pace Project No.: 50375493

Sample: MW-26A **Lab ID: 50375493001** Collected: 06/10/24 15:50 Received: 06/11/24 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.000 ± 0.868 (1.70) C:NA T:89%**	pCi/L	06/28/24 13:57	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.811 ± 0.390 (0.662) C:83% T:88%**	pCi/L	06/27/24 14:33	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.811 ± 1.26 (2.36)**	pCi/L	07/01/24 13:33	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024
Pace Project No.: 50375493

Sample: MW-26I **Lab ID: 50375493002** Collected: 06/10/24 15:21 Received: 06/11/24 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.219 ± 0.796 (1.47) C:NA T:97%**	pCi/L	06/28/24 13:57	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.37 ± 0.509 (0.735) C:82% T:80%**	pCi/L	06/27/24 14:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.59 ± 1.31 (2.21)**	pCi/L	07/01/24 13:33	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024
Pace Project No.: 50375493

QC Batch: 675501
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50375493001, 50375493002

METHOD BLANK: 3288981 Matrix: Water
Associated Lab Samples: 50375493001, 50375493002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.375 ± 0.349 (0.460) C:NA T:94%	pCi/L	06/28/24 13:43	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024
Pace Project No.: 50375493

QC Batch: 675503
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50375493001, 50375493002

METHOD BLANK: 3288988 Matrix: Water
Associated Lab Samples: 50375493001, 50375493002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.185 ± 0.292 (0.633) C:86% T:88%	pCi/L	06/27/24 14:31	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024
Pace Project No.: 50375493

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024
Pace Project No.: 50375493

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50375493001	**MW-26A**	EPA 9056	795013		
50375493002	**MW-26I**	EPA 9056	795013		
50375493001	**MW-26A**	EPA 3010	795443	EPA 6010	796722
50375493002	**MW-26I**	EPA 3010	795443	EPA 6010	796722
50375493001	**MW-26A**	EPA 3010	796442	EPA 6010	796786
50375493002	**MW-26I**	EPA 3010	796442	EPA 6010	796786
50375493001	**MW-26A**	EPA 200.2	795081	EPA 6020	795417
50375493002	**MW-26I**	EPA 200.2	795081	EPA 6020	795417
50375493001	**MW-26A**	EPA 200.2	795083	EPA 6020	795419
50375493002	**MW-26I**	EPA 200.2	795083	EPA 6020	795419
50375493001	**MW-26A**	EPA 7470	796092	EPA 7470	796930
50375493002	**MW-26I**	EPA 7470	796092	EPA 7470	796930
50375493001	**MW-26A**	EPA 903.1	675501		
50375493002	**MW-26I**	EPA 903.1	675501		
50375493001	**MW-26A**	EPA 904.0	675503		
50375493002	**MW-26I**	EPA 904.0	675503		
50375493001	**MW-26A**	Total Radium Calculation	679555		
50375493002	**MW-26I**	Total Radium Calculation	679555		
50375493001	**MW-26A**	SM 2320B	795889		
50375493002	**MW-26I**	SM 2320B	795889		
50375493001	**MW-26A**	SM 2540C	795715		
50375493002	**MW-26I**	SM 2540C	795715		
50375493001	**MW-26A**	SM 4500-H+B	796286		
50375493002	**MW-26I**	SM 4500-H+B	796286		
50375493001	**MW-26A**	SM 4500-S2-D	795226		
50375493002	**MW-26I**	SM 4500-S2-D	795226		
50375493001	**MW-26A**	EPA 353.2	795164		
50375493002	**MW-26I**	EPA 353.2	795164		
50375493001	**MW-26A**	EPA 365.1	796751	EPA 365.1	797002
50375493002	**MW-26I**	EPA 365.1	796751	EPA 365.1	797002
50375493001	**MW-26A**	SM 5310C	796566		
50375493002	**MW-26I**	SM 5310C	796566		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUS

The Chain-of-Custody is a … curately.

WO# : 50375493

50375493

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section Invoice
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name: Atlas Indianapolis
	Indianapolis, IN 46256			Address:
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P4 May 2024	Pace Project Manager: Will Statz
Requested Due Date:		Project #:		Pace Profile #: 10498/60

Regulatory Agency

State / Location: IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO3 Wet	(Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity,pH	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum	Residual Chlorine (Y/N)	
																		Requested Analysis Filtered (Y/N)				Y			Y				
1	MW-26A	WT	G			6-10	1550		10	X	X	X		X					X	X	X	X	X	X	X	X	X	001
2	MW-26I	WT	G			6-10	1521		10	X	X	X		X					X	X	X	X	X	X	X	X	X	002
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Metals: 6010 (B, Cd, Cr, Fe, Pb, Mo, Ca, Mg, Na, K, Li) (11)	Mayky Tolles/ATLAS	6-10-24	1630	Fedex	6-10-24	1630				
6020 (Be, Mn, Co, As, Se, Sb, Ba, Tl) (8), 7470 (Hg)	Fedex	6/11/24	915	Matt	6/11/24	915	3.8	Y	Y	Y
* Dissolved FF 6010 (B, Mo, Mg, K, Li) (5) FF 6020 (Al) (1)										
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	Mayky Tolles		
SIGNATURE of SAMPLER:		DATE Signed:	6-10-24

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: (e) 11/24 947 MW

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H
4. **Cooler Temperature(s):** 3.7 / 3.8 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **Was the PM notified of out of temp cooler?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C
8. **EZ Bottle Order?** ☐ Yes ☑ No
   If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis: NO3	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 1032			Present	Absent	N/A ✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			
			Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1													1			2	1	2	1	1	1		1					WT	✓	✓		✓
2													⊥			⊥	⊥	⊥	⊥	⊥	⊥		⊥					⊥	⊥	⊥		⊥
3																																	
4																																	
5																																	
6																																	
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

July 24, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024
Pace Project No.: 50375622

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on June 12, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024
Pace Project No.: 50375622

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024
Pace Project No.: 50375622

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50375622001	**MW-26B**	Water	06/11/24 10:53	06/12/24 09:30
50375622002	**MW-27B**	Water	06/11/24 12:50	06/12/24 09:30
50375622003	**MW-28A**	Water	06/11/24 15:00	06/12/24 09:30
50375622004	**MW-28B**	Water	06/11/24 15:30	06/12/24 09:30
50375622005	**DUP6**	Water	06/11/24 08:00	06/12/24 09:30
50375622006	**DUP7**	Water	06/11/24 08:00	06/12/24 09:30
50375622007	**Field Blank 4**	Water	06/11/24 11:41	06/12/24 09:30

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024
Pace Project No.: 50375622

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50375622001	**MW-26B**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ABH	11	PASI-I
		EPA 6010	ABH	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	DMT	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	DMC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50375622002	**MW-27B**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ABH	11	PASI-I
		EPA 6010	ABH	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	DMT	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	DMC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50375622003	**MW-28A**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ABH	11	PASI-I
		EPA 6010	ABH	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	DMT	1	PASI-I

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024
Pace Project No.: 50375622

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	DMC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50375622004	**MW-28B**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ABH	11	PASI-I
		EPA 6010	ABH	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	DMT	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	DMC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50375622005	**DUP6**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ABH	11	PASI-I
		EPA 6010	ABH	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	DMT	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	DMC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024
Pace Project No.: 50375622

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50375622006	**DUP7**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ABH	11	PASI-I
		EPA 6010	ABH	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	DMT	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	DMC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I
50375622007	**Field Blank 4**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ABH	11	PASI-I
		EPA 6010	ABH	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	DMT	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 903.1	DMC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	STS	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	YAM	1	PASI-I

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024
Pace Project No.: 50375622

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 5310C	YAM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024
Pace Project No.: 50375622

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50375622001	**MW-26B**					
EPA 9056	Chloride	33.7	mg/L	2.5	06/15/24 20:00	
EPA 9056	Sulfate	227	mg/L	2.5	06/15/24 20:00	
EPA 6010	Boron	1760	ug/L	100	06/23/24 22:08	
EPA 6010	Calcium	199000	ug/L	1000	06/23/24 22:08	
EPA 6010	Magnesium	44500	ug/L	1000	06/23/24 22:08	
EPA 6010	Potassium	2920	ug/L	1000	06/23/24 22:08	
EPA 6010	Sodium	25300	ug/L	1000	06/23/24 22:08	
EPA 6010	Boron, Dissolved	1810	ug/L	100	06/20/24 20:17	
EPA 6010	Magnesium, Dissolved	45400	ug/L	1000	06/20/24 20:17	
EPA 6010	Potassium, Dissolved	3110	ug/L	1000	06/20/24 20:17	
EPA 6020	Barium	22.1	ug/L	1.0	06/14/24 06:41	
EPA 6020	Cobalt	1.4	ug/L	1.0	06/14/24 06:41	
EPA 6020	Manganese	1390	ug/L	10.0	06/15/24 11:07	
EPA 6020	Selenium	4.9	ug/L	1.0	06/14/24 06:41	
EPA 903.1	Radium-226	0.535 ± 0.666 (1.11) C:NA T:91%	pCi/L		07/02/24 15:55	
EPA 904.0	Radium-228	0.376 ± 0.390 (0.808) C:76% T:91%	pCi/L		06/28/24 14:35	
Total Radium Calculation	Total Radium	0.911 ± 1.06 (1.92)	pCi/L		07/03/24 14:29	
SM 2320B	Alkalinity, Total as CaCO3	485	mg/L	10.0	06/18/24 00:00	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	485	mg/L	10.0	06/18/24 00:00	
SM 2540C	Total Dissolved Solids	772	mg/L	20.0	06/17/24 10:00	
SM 4500-H+B	pH at 25 Degrees C	8.0	Std. Units	0.10	06/18/24 16:07	H3
EPA 353.2	Nitrogen, Nitrate	1.0	mg/L	0.10	06/12/24 21:21	
SM 5310C	Dissolved Organic Carbon	3.6	mg/L	1.0	06/20/24 16:22	
50375622002	**MW-27B**					
EPA 9056	Chloride	187	mg/L	2.5	06/15/24 20:34	
EPA 9056	Fluoride	0.15	mg/L	0.10	06/15/24 20:17	
EPA 9056	Sulfate	153	mg/L	2.5	06/15/24 20:34	
EPA 6010	Boron	7160	ug/L	100	06/23/24 22:10	
EPA 6010	Calcium	260000	ug/L	2000	06/23/24 22:56	
EPA 6010	Iron	27800	ug/L	100	06/23/24 22:10	
EPA 6010	Magnesium	77300	ug/L	1000	06/23/24 22:10	
EPA 6010	Potassium	4420	ug/L	1000	06/23/24 22:10	
EPA 6010	Sodium	68300	ug/L	1000	06/23/24 22:10	
EPA 6010	Boron, Dissolved	7700	ug/L	100	06/20/24 20:18	
EPA 6010	Magnesium, Dissolved	80700	ug/L	1000	06/20/24 20:18	
EPA 6010	Potassium, Dissolved	4620	ug/L	1000	06/20/24 20:18	
EPA 6020	Arsenic	37.0	ug/L	1.0	06/14/24 06:44	
EPA 6020	Barium	504	ug/L	4.0	06/15/24 11:36	
EPA 6020	Manganese	1160	ug/L	10.0	06/15/24 11:11	
EPA 6020	Aluminum, Dissolved	17.7	ug/L	10.0	06/14/24 03:26	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024
Pace Project No.: 50375622

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50375622002	**MW-27B**					
EPA 903.1	Radium-226	1.86 ± 0.918 (1.17) C:NA T:86%	pCi/L		07/02/24 15:55	
EPA 904.0	Radium-228	1.05 ± 0.490 (0.805) C:75% T:83%	pCi/L		06/28/24 14:35	
Total Radium Calculation	Total Radium	2.91 ± 1.41 (1.98)	pCi/L		07/03/24 14:29	
SM 2320B	Alkalinity, Total as CaCO3	792	mg/L	10.0	06/18/24 00:00	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	792	mg/L	10.0	06/18/24 00:00	
SM 2540C	Total Dissolved Solids	1190	mg/L	20.0	06/17/24 10:00	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	06/18/24 16:08	H3
EPA 365.1	Phosphate as P04	6.5	mg/L	0.75	06/21/24 10:21	
SM 5310C	Dissolved Organic Carbon	15.2	mg/L	1.0	06/20/24 16:34	
50375622003	**MW-28A**					
EPA 9056	Chloride	153	mg/L	2.5	06/15/24 21:08	
EPA 9056	Sulfate	1590	mg/L	25.0	06/15/24 21:25	
EPA 6010	Boron	27100	ug/L	100	06/23/24 22:11	
EPA 6010	Calcium	669000	ug/L	5000	06/23/24 22:58	
EPA 6010	Iron	8590	ug/L	100	06/23/24 22:11	
EPA 6010	Magnesium	12500	ug/L	1000	06/23/24 22:11	
EPA 6010	Molybdenum	1480	ug/L	10.0	06/23/24 22:11	
EPA 6010	Potassium	36200	ug/L	1000	06/23/24 22:11	
EPA 6010	Sodium	34700	ug/L	1000	06/23/24 22:11	
EPA 6010	Boron, Dissolved	27300	ug/L	100	06/20/24 20:20	
EPA 6010	Magnesium, Dissolved	12000	ug/L	1000	06/20/24 20:20	
EPA 6010	Molybdenum, Dissolved	1440	ug/L	10.0	06/20/24 20:20	
EPA 6010	Potassium, Dissolved	35900	ug/L	1000	06/20/24 20:20	
EPA 6020	Arsenic	1.4	ug/L	1.0	06/14/24 06:48	
EPA 6020	Barium	30.9	ug/L	1.0	06/14/24 06:48	
EPA 6020	Manganese	2170	ug/L	20.0	06/15/24 11:14	
EPA 903.1	Radium-226	0.756 ± 0.752 (1.20) C:NA T:89%	pCi/L		07/02/24 15:55	
EPA 904.0	Radium-228	1.25 ± 0.473 (0.689) C:77% T:91%	pCi/L		06/28/24 14:35	
Total Radium Calculation	Total Radium	2.01 ± 1.23 (1.89)	pCi/L		07/03/24 14:29	
SM 2320B	Alkalinity, Total as CaCO3	56.0	mg/L	10.0	06/18/24 00:00	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	56.0	mg/L	10.0	06/18/24 00:00	
SM 2540C	Total Dissolved Solids	2540	mg/L	20.0	06/17/24 10:00	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	06/18/24 16:08	H3
EPA 365.1	Phosphate as P04	0.21	mg/L	0.15	06/21/24 09:29	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024
Pace Project No.: 50375622

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50375622003	**MW-28A**					
SM 5310C	Dissolved Organic Carbon	2.3	mg/L	1.0	06/20/24 16:46	
50375622004	**MW-28B**					
EPA 9056	Chloride	127	mg/L	2.5	06/15/24 22:49	
EPA 9056	Fluoride	0.31	mg/L	0.10	06/15/24 22:32	
EPA 9056	Sulfate	767	mg/L	25.0	06/15/24 23:06	
EPA 6010	Boron	9350	ug/L	100	06/23/24 22:13	
EPA 6010	Calcium	300000	ug/L	2000	06/23/24 23:00	
EPA 6010	Iron	4630	ug/L	100	06/23/24 22:13	
EPA 6010	Lithium	163	ug/L	20.0	06/23/24 22:13	
EPA 6010	Magnesium	70500	ug/L	1000	06/23/24 22:13	
EPA 6010	Molybdenum	386	ug/L	10.0	06/23/24 22:13	
EPA 6010	Potassium	18800	ug/L	1000	06/23/24 22:13	
EPA 6010	Sodium	60800	ug/L	1000	06/23/24 22:13	
EPA 6010	Boron, Dissolved	9800	ug/L	100	06/20/24 20:22	
EPA 6010	Lithium, Dissolved	165	ug/L	20.0	06/20/24 20:22	
EPA 6010	Magnesium, Dissolved	73100	ug/L	1000	06/20/24 20:22	
EPA 6010	Molybdenum, Dissolved	388	ug/L	10.0	06/20/24 20:22	
EPA 6010	Potassium, Dissolved	19700	ug/L	1000	06/20/24 20:22	
EPA 6020	Arsenic	3.9	ug/L	1.0	06/14/24 07:03	
EPA 6020	Barium	47.0	ug/L	1.0	06/14/24 07:03	
EPA 6020	Cobalt	4.9	ug/L	1.0	06/14/24 07:03	
EPA 6020	Manganese	3250	ug/L	20.0	06/15/24 11:18	
EPA 6020	Aluminum, Dissolved	10.1	ug/L	10.0	06/14/24 03:41	
EPA 903.1	Radium-226	0.422 ± 0.529 (0.878) C:NA T:90%	pCi/L		07/02/24 15:55	
EPA 904.0	Radium-228	1.09 ± 0.519 (0.884) C:77% T:81%	pCi/L		06/28/24 14:35	
Total Radium Calculation	Total Radium	1.51 ± 1.05 (1.76)	pCi/L		07/03/24 14:29	
SM 2320B	Alkalinity, Total as CaCO3	294	mg/L	10.0	06/18/24 00:00	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	294	mg/L	10.0	06/18/24 00:00	
SM 2540C	Total Dissolved Solids	1480	mg/L	20.0	06/17/24 10:00	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	06/18/24 16:10	H3
EPA 365.1	Phosphate as P04	0.22	mg/L	0.15	06/21/24 09:29	
SM 5310C	Dissolved Organic Carbon	2.2	mg/L	1.0	06/20/24 16:57	
50375622005	**DUP6**					
EPA 9056	Chloride	190	mg/L	2.5	06/15/24 23:39	
EPA 9056	Fluoride	0.13	mg/L	0.10	06/15/24 23:23	
EPA 9056	Sulfate	154	mg/L	2.5	06/15/24 23:39	
EPA 6010	Boron	7380	ug/L	100	06/23/24 22:15	
EPA 6010	Calcium	270000	ug/L	2000	06/23/24 23:02	
EPA 6010	Iron	28100	ug/L	100	06/23/24 22:15	
EPA 6010	Magnesium	78400	ug/L	1000	06/23/24 22:15	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024
Pace Project No.: 50375622

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50375622005	**DUP6**					
EPA 6010	Potassium	4500	ug/L	1000	06/23/24 22:15	
EPA 6010	Sodium	69200	ug/L	1000	06/23/24 22:15	
EPA 6010	Boron, Dissolved	7660	ug/L	100	06/20/24 20:24	
EPA 6010	Magnesium, Dissolved	79700	ug/L	1000	06/20/24 20:24	
EPA 6010	Potassium, Dissolved	4580	ug/L	1000	06/20/24 20:24	
EPA 6020	Arsenic	35.7	ug/L	1.0	06/14/24 07:06	
EPA 6020	Barium	555	ug/L	4.0	06/15/24 11:40	
EPA 6020	Manganese	1150	ug/L	10.0	06/15/24 11:22	
EPA 6020	Aluminum, Dissolved	15.1	ug/L	10.0	06/14/24 03:44	
EPA 903.1	Radium-226	1.91 ± 0.873 (1.03) C:NA T:88%	pCi/L		07/02/24 15:55	
EPA 904.0	Radium-228	1.34 ± 0.519 (0.779) C:75% T:88%	pCi/L		06/28/24 14:35	
Total Radium Calculation	Total Radium	3.25 ± 1.39 (1.81)	pCi/L		07/03/24 14:29	
SM 2320B	Alkalinity, Total as CaCO3	792	mg/L	10.0	06/18/24 01:33	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	792	mg/L	10.0	06/18/24 01:33	
SM 2540C	Total Dissolved Solids	1170	mg/L	20.0	06/18/24 11:19	
SM 4500-H+B	pH at 25 Degrees C	7.0	Std. Units	0.10	06/20/24 10:52	H3
EPA 365.1	Phosphate as P04	6.4	mg/L	0.75	06/21/24 13:02	
SM 5310C	Dissolved Organic Carbon	13.7	mg/L	1.0	06/20/24 17:51	
50375622006	**DUP7**					
EPA 9056	Chloride	33.0	mg/L	2.5	06/16/24 00:13	
EPA 9056	Sulfate	225	mg/L	2.5	06/16/24 00:13	
EPA 6010	Boron	1750	ug/L	100	06/23/24 22:17	
EPA 6010	Calcium	195000	ug/L	1000	06/23/24 22:17	
EPA 6010	Magnesium	43500	ug/L	1000	06/23/24 22:17	
EPA 6010	Potassium	2900	ug/L	1000	06/23/24 22:17	
EPA 6010	Sodium	24800	ug/L	1000	06/23/24 22:17	
EPA 6010	Boron, Dissolved	1880	ug/L	100	06/20/24 20:26	
EPA 6010	Magnesium, Dissolved	45000	ug/L	1000	06/20/24 20:26	
EPA 6010	Potassium, Dissolved	3240	ug/L	1000	06/20/24 20:26	
EPA 6020	Barium	22.1	ug/L	1.0	06/14/24 07:10	
EPA 6020	Cobalt	1.5	ug/L	1.0	06/14/24 07:10	
EPA 6020	Manganese	1420	ug/L	10.0	06/15/24 11:25	
EPA 6020	Selenium	5.2	ug/L	1.0	06/14/24 07:10	
EPA 903.1	Radium-226	0.279 ± 0.570 (1.01) C:NA T:89%	pCi/L		07/02/24 16:09	
EPA 904.0	Radium-228	0.907 ± 0.448 (0.746) C:71% T:87%	pCi/L		06/28/24 14:35	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024
Pace Project No.: 50375622

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50375622006	**DUP7**					
Total Radium Calculation	Total Radium	1.19 ± 1.02 (1.76)	pCi/L		07/03/24 14:29	
SM 2320B	Alkalinity, Total as CaCO3	484	mg/L	10.0	06/18/24 00:00	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	484	mg/L	10.0	06/18/24 00:00	
SM 2540C	Total Dissolved Solids	798	mg/L	10.0	06/18/24 11:19	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	06/20/24 10:53	H3
EPA 353.2	Nitrogen, Nitrate	0.85	mg/L	0.10	06/12/24 21:03	
SM 5310C	Dissolved Organic Carbon	2.8	mg/L	1.0	06/20/24 18:07	
50375622007	**Field Blank 4**					
EPA 903.1	Radium-226	-0.311 ± 0.558 (1.16) C:NA T:96%	pCi/L		07/02/24 16:09	
EPA 904.0	Radium-228	0.100 ± 0.323 (0.731) C:76% T:93%	pCi/L		06/28/24 14:36	
Total Radium Calculation	Total Radium	0.1000 ± 0.881 (1.89)	pCi/L		07/03/24 14:29	
SM 4500-H+B	pH at 25 Degrees C	8.2	Std. Units	0.10	06/20/24 10:55	H3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024
Pace Project No.: 50375622

Sample: MW-26B **Lab ID: 50375622001** Collected: 06/11/24 10:53 Received: 06/12/24 09:30 Matrix: Water

Comments: • Received 2 X BP1N for each sample, not 1 X BP1N as listed on COC.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056								
	Pace Analytical Services - Indianapolis								
Chloride	**33.7**	mg/L	2.5	0.67	10		06/15/24 20:00	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		06/15/24 19:43	16984-48-8	
Sulfate	**227**	mg/L	2.5	1.9	10		06/15/24 20:00	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Boron	**1760**	ug/L	100	11.4	1	06/20/24 22:06	06/23/24 22:08	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	06/20/24 22:06	06/23/24 22:08	7440-43-9	
Calcium	**199000**	ug/L	1000	56.7	1	06/20/24 22:06	06/23/24 22:08	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	06/20/24 22:06	06/23/24 22:08	7440-47-3	
Iron	ND	ug/L	100	18.1	1	06/20/24 22:06	06/23/24 22:08	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	06/20/24 22:06	06/23/24 22:08	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	06/20/24 22:06	06/23/24 22:08	7439-93-2	
Magnesium	**44500**	ug/L	1000	32.8	1	06/20/24 22:06	06/23/24 22:08	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	06/20/24 22:06	06/23/24 22:08	7439-98-7	
Potassium	**2920**	ug/L	1000	120	1	06/20/24 22:06	06/23/24 22:08	7440-09-7	
Sodium	**25300**	ug/L	1000	48.2	1	06/20/24 22:06	06/23/24 22:08	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1810**	ug/L	100	11.4	1	06/19/24 20:39	06/20/24 20:17	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	06/19/24 20:39	06/20/24 20:17	7439-93-2	
Magnesium, Dissolved	**45400**	ug/L	1000	32.8	1	06/19/24 20:39	06/20/24 20:17	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	06/19/24 20:39	06/20/24 20:17	7439-98-7	
Potassium, Dissolved	**3110**	ug/L	1000	120	1	06/19/24 20:39	06/20/24 20:17	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.044	1	06/13/24 07:30	06/14/24 06:41	7440-36-0	
Arsenic	ND	ug/L	1.0	0.064	1	06/13/24 07:30	06/14/24 06:41	7440-38-2	
Barium	**22.1**	ug/L	1.0	0.067	1	06/13/24 07:30	06/14/24 06:41	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	06/13/24 07:30	06/14/24 06:41	7440-41-7	
Cobalt	**1.4**	ug/L	1.0	0.024	1	06/13/24 07:30	06/14/24 06:41	7440-48-4	
Manganese	**1390**	ug/L	10.0	0.43	10	06/13/24 07:30	06/15/24 11:07	7439-96-5	
Selenium	**4.9**	ug/L	1.0	0.23	1	06/13/24 07:30	06/14/24 06:41	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	06/13/24 07:30	06/14/24 06:41	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2								
	Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	06/13/24 07:30	06/14/24 03:22	7429-90-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024
Pace Project No.: 50375622

Sample: MW-26B **Lab ID: 50375622001** Collected: 06/11/24 10:53 Received: 06/12/24 09:30 Matrix: Water

Comments: • Received 2 X BP1N for each sample, not 1 X BP1N as listed on COC.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
	Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/20/24 10:45	06/20/24 20:55	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B								
	Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**485**	mg/L	10.0	10.0	1		06/18/24 00:00		
Alkalinity,Bicarbonate (CaCO3)	**485**	mg/L	10.0	10.0	1		06/18/24 00:00		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/18/24 00:00		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
	Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**772**	mg/L	20.0	20.0	1		06/17/24 10:00		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
	Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**8.0**	Std. Units	0.10	0.10	1		06/18/24 16:07		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D								
	Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		06/12/24 15:46	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
	Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**1.0**	mg/L	0.10	0.013	1		06/12/24 21:21	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1								
	Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	06/20/24 11:30	06/21/24 09:28		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C								
	Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**3.6**	mg/L	1.0	0.25	1		06/20/24 16:22		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024
Pace Project No.: 50375622

Sample: MW-27B **Lab ID: 50375622002** Collected: 06/11/24 12:50 Received: 06/12/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**187**	mg/L	2.5	0.67	10		06/15/24 20:34	16887-00-6	
Fluoride	**0.15**	mg/L	0.10	0.017	1		06/15/24 20:17	16984-48-8	
Sulfate	**153**	mg/L	2.5	1.9	10		06/15/24 20:34	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**7160**	ug/L	100	11.4	1	06/20/24 22:06	06/23/24 22:10	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	06/20/24 22:06	06/23/24 22:10	7440-43-9	
Calcium	**260000**	ug/L	2000	113	2	06/20/24 22:06	06/23/24 22:56	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	06/20/24 22:06	06/23/24 22:10	7440-47-3	
Iron	**27800**	ug/L	100	18.1	1	06/20/24 22:06	06/23/24 22:10	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	06/20/24 22:06	06/23/24 22:10	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	06/20/24 22:06	06/23/24 22:10	7439-93-2	
Magnesium	**77300**	ug/L	1000	32.8	1	06/20/24 22:06	06/23/24 22:10	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	06/20/24 22:06	06/23/24 22:10	7439-98-7	
Potassium	**4420**	ug/L	1000	120	1	06/20/24 22:06	06/23/24 22:10	7440-09-7	
Sodium	**68300**	ug/L	1000	48.2	1	06/20/24 22:06	06/23/24 22:10	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**7700**	ug/L	100	11.4	1	06/19/24 20:39	06/20/24 20:18	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	06/19/24 20:39	06/20/24 20:18	7439-93-2	
Magnesium, Dissolved	**80700**	ug/L	1000	32.8	1	06/19/24 20:39	06/20/24 20:18	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	06/19/24 20:39	06/20/24 20:18	7439-98-7	
Potassium, Dissolved	**4620**	ug/L	1000	120	1	06/19/24 20:39	06/20/24 20:18	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.044	1	06/13/24 07:30	06/14/24 06:44	7440-36-0	
Arsenic	**37.0**	ug/L	1.0	0.064	1	06/13/24 07:30	06/14/24 06:44	7440-38-2	
Barium	**504**	ug/L	4.0	0.27	4	06/13/24 07:30	06/15/24 11:36	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	06/13/24 07:30	06/14/24 06:44	7440-41-7	
Cobalt	ND	ug/L	1.0	0.024	1	06/13/24 07:30	06/14/24 06:44	7440-48-4	
Manganese	**1160**	ug/L	10.0	0.43	10	06/13/24 07:30	06/15/24 11:11	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	06/13/24 07:30	06/14/24 06:44	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	06/13/24 07:30	06/14/24 06:44	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	**17.7**	ug/L	10.0	4.4	1	06/13/24 07:30	06/14/24 03:26	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/20/24 10:45	06/20/24 20:57	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024
Pace Project No.: 50375622

Sample: MW-27B **Lab ID: 50375622002** Collected: 06/11/24 12:50 Received: 06/12/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**792**	mg/L	10.0	10.0	1		06/18/24 00:00		
Alkalinity,Bicarbonate (CaCO3)	**792**	mg/L	10.0	10.0	1		06/18/24 00:00		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/18/24 00:00		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1190**	mg/L	20.0	20.0	1		06/17/24 10:00		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		06/18/24 16:08		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		06/12/24 15:46	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		06/12/24 21:49	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**6.5**	mg/L	0.75	0.65	5	06/20/24 11:30	06/21/24 10:21		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**15.2**	mg/L	1.0	0.25	1		06/20/24 16:34		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024
Pace Project No.: 50375622

Sample: MW-28A **Lab ID: 50375622003** Collected: 06/11/24 15:00 Received: 06/12/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**153**	mg/L	2.5	0.67	10		06/15/24 21:08	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		06/15/24 20:51	16984-48-8	
Sulfate	**1590**	mg/L	25.0	19.0	100		06/15/24 21:25	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**27100**	ug/L	100	11.4	1	06/20/24 22:06	06/23/24 22:11	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	06/20/24 22:06	06/23/24 22:11	7440-43-9	
Calcium	**669000**	ug/L	5000	284	5	06/20/24 22:06	06/23/24 22:58	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	06/20/24 22:06	06/23/24 22:11	7440-47-3	
Iron	**8590**	ug/L	100	18.1	1	06/20/24 22:06	06/23/24 22:11	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	06/20/24 22:06	06/23/24 22:11	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	06/20/24 22:06	06/23/24 22:11	7439-93-2	
Magnesium	**12500**	ug/L	1000	32.8	1	06/20/24 22:06	06/23/24 22:11	7439-95-4	
Molybdenum	**1480**	ug/L	10.0	1.1	1	06/20/24 22:06	06/23/24 22:11	7439-98-7	
Potassium	**36200**	ug/L	1000	120	1	06/20/24 22:06	06/23/24 22:11	7440-09-7	
Sodium	**34700**	ug/L	1000	48.2	1	06/20/24 22:06	06/23/24 22:11	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**27300**	ug/L	100	11.4	1	06/19/24 20:39	06/20/24 20:20	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	06/19/24 20:39	06/20/24 20:20	7439-93-2	
Magnesium, Dissolved	**12000**	ug/L	1000	32.8	1	06/19/24 20:39	06/20/24 20:20	7439-95-4	
Molybdenum, Dissolved	**1440**	ug/L	10.0	1.1	1	06/19/24 20:39	06/20/24 20:20	7439-98-7	
Potassium, Dissolved	**35900**	ug/L	1000	120	1	06/19/24 20:39	06/20/24 20:20	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.044	1	06/13/24 07:30	06/14/24 06:48	7440-36-0	
Arsenic	**1.4**	ug/L	1.0	0.064	1	06/13/24 07:30	06/14/24 06:48	7440-38-2	
Barium	**30.9**	ug/L	1.0	0.067	1	06/13/24 07:30	06/14/24 06:48	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	06/13/24 07:30	06/14/24 06:48	7440-41-7	
Cobalt	ND	ug/L	1.0	0.024	1	06/13/24 07:30	06/14/24 06:48	7440-48-4	
Manganese	**2170**	ug/L	20.0	0.86	20	06/13/24 07:30	06/15/24 11:14	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	06/13/24 07:30	06/14/24 06:48	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	06/13/24 07:30	06/14/24 06:48	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	06/13/24 07:30	06/14/24 03:30	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/20/24 10:45	06/20/24 21:00	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024
Pace Project No.: 50375622

Sample: MW-28A **Lab ID: 50375622003** Collected: 06/11/24 15:00 Received: 06/12/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**56.0**	mg/L	10.0	10.0	1		06/18/24 00:00		
Alkalinity,Bicarbonate (CaCO3)	**56.0**	mg/L	10.0	10.0	1		06/18/24 00:00		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/18/24 00:00		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2540**	mg/L	20.0	20.0	1		06/17/24 10:00		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		06/18/24 16:08		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		06/12/24 16:26	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		06/12/24 22:02	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.21**	mg/L	0.15	0.13	1	06/20/24 11:30	06/21/24 09:29		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.3**	mg/L	1.0	0.25	1		06/20/24 16:46		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024
Pace Project No.: 50375622

Sample: MW-28B **Lab ID: 50375622004** Collected: 06/11/24 15:30 Received: 06/12/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**127**	mg/L	2.5	0.67	10		06/15/24 22:49	16887-00-6	
Fluoride	**0.31**	mg/L	0.10	0.017	1		06/15/24 22:32	16984-48-8	
Sulfate	**767**	mg/L	25.0	19.0	100		06/15/24 23:06	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**9350**	ug/L	100	11.4	1	06/20/24 22:06	06/23/24 22:13	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	06/20/24 22:06	06/23/24 22:13	7440-43-9	
Calcium	**300000**	ug/L	2000	113	2	06/20/24 22:06	06/23/24 23:00	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	06/20/24 22:06	06/23/24 22:13	7440-47-3	
Iron	**4630**	ug/L	100	18.1	1	06/20/24 22:06	06/23/24 22:13	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	06/20/24 22:06	06/23/24 22:13	7439-92-1	
Lithium	**163**	ug/L	20.0	5.1	1	06/20/24 22:06	06/23/24 22:13	7439-93-2	
Magnesium	**70500**	ug/L	1000	32.8	1	06/20/24 22:06	06/23/24 22:13	7439-95-4	
Molybdenum	**386**	ug/L	10.0	1.1	1	06/20/24 22:06	06/23/24 22:13	7439-98-7	
Potassium	**18800**	ug/L	1000	120	1	06/20/24 22:06	06/23/24 22:13	7440-09-7	
Sodium	**60800**	ug/L	1000	48.2	1	06/20/24 22:06	06/23/24 22:13	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**9800**	ug/L	100	11.4	1	06/19/24 20:39	06/20/24 20:22	7440-42-8	
Lithium, Dissolved	**165**	ug/L	20.0	5.1	1	06/19/24 20:39	06/20/24 20:22	7439-93-2	
Magnesium, Dissolved	**73100**	ug/L	1000	32.8	1	06/19/24 20:39	06/20/24 20:22	7439-95-4	
Molybdenum, Dissolved	**388**	ug/L	10.0	1.1	1	06/19/24 20:39	06/20/24 20:22	7439-98-7	
Potassium, Dissolved	**19700**	ug/L	1000	120	1	06/19/24 20:39	06/20/24 20:22	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.044	1	06/13/24 07:30	06/14/24 07:03	7440-36-0	
Arsenic	**3.9**	ug/L	1.0	0.064	1	06/13/24 07:30	06/14/24 07:03	7440-38-2	
Barium	**47.0**	ug/L	1.0	0.067	1	06/13/24 07:30	06/14/24 07:03	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	06/13/24 07:30	06/14/24 07:03	7440-41-7	
Cobalt	**4.9**	ug/L	1.0	0.024	1	06/13/24 07:30	06/14/24 07:03	7440-48-4	
Manganese	**3250**	ug/L	20.0	0.86	20	06/13/24 07:30	06/15/24 11:18	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	06/13/24 07:30	06/14/24 07:03	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	06/13/24 07:30	06/14/24 07:03	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	**10.1**	ug/L	10.0	4.4	1	06/13/24 07:30	06/14/24 03:41	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/20/24 10:45	06/20/24 21:12	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024
Pace Project No.: 50375622

Sample: MW-28B **Lab ID: 50375622004** Collected: 06/11/24 15:30 Received: 06/12/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**294**	mg/L	10.0	10.0	1		06/18/24 00:00		
Alkalinity,Bicarbonate (CaCO3)	**294**	mg/L	10.0	10.0	1		06/18/24 00:00		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/18/24 00:00		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1480**	mg/L	20.0	20.0	1		06/17/24 10:00		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		06/18/24 16:10		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		06/12/24 16:26	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		06/12/24 22:06	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.22**	mg/L	0.15	0.13	1	06/20/24 11:30	06/21/24 09:29		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.2**	mg/L	1.0	0.25	1		06/20/24 16:57		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024
Pace Project No.: 50375622

Sample: DUP6 **Lab ID: 50375622005** Collected: 06/11/24 08:00 Received: 06/12/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**190**	mg/L	2.5	0.67	10		06/15/24 23:39	16887-00-6	
Fluoride	**0.13**	mg/L	0.10	0.017	1		06/15/24 23:23	16984-48-8	
Sulfate	**154**	mg/L	2.5	1.9	10		06/15/24 23:39	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**7380**	ug/L	100	11.4	1	06/20/24 22:06	06/23/24 22:15	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	06/20/24 22:06	06/23/24 22:15	7440-43-9	
Calcium	**270000**	ug/L	2000	113	2	06/20/24 22:06	06/23/24 23:02	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	06/20/24 22:06	06/23/24 22:15	7440-47-3	
Iron	**28100**	ug/L	100	18.1	1	06/20/24 22:06	06/23/24 22:15	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	06/20/24 22:06	06/23/24 22:15	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	06/20/24 22:06	06/23/24 22:15	7439-93-2	
Magnesium	**78400**	ug/L	1000	32.8	1	06/20/24 22:06	06/23/24 22:15	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	06/20/24 22:06	06/23/24 22:15	7439-98-7	
Potassium	**4500**	ug/L	1000	120	1	06/20/24 22:06	06/23/24 22:15	7440-09-7	
Sodium	**69200**	ug/L	1000	48.2	1	06/20/24 22:06	06/23/24 22:15	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**7660**	ug/L	100	11.4	1	06/19/24 20:39	06/20/24 20:24	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	06/19/24 20:39	06/20/24 20:24	7439-93-2	
Magnesium, Dissolved	**79700**	ug/L	1000	32.8	1	06/19/24 20:39	06/20/24 20:24	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	06/19/24 20:39	06/20/24 20:24	7439-98-7	
Potassium, Dissolved	**4580**	ug/L	1000	120	1	06/19/24 20:39	06/20/24 20:24	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.044	1	06/13/24 07:30	06/14/24 07:06	7440-36-0	
Arsenic	**35.7**	ug/L	1.0	0.064	1	06/13/24 07:30	06/14/24 07:06	7440-38-2	
Barium	**555**	ug/L	4.0	0.27	4	06/13/24 07:30	06/15/24 11:40	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	06/13/24 07:30	06/14/24 07:06	7440-41-7	
Cobalt	ND	ug/L	1.0	0.024	1	06/13/24 07:30	06/14/24 07:06	7440-48-4	
Manganese	**1150**	ug/L	10.0	0.43	10	06/13/24 07:30	06/15/24 11:22	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	06/13/24 07:30	06/14/24 07:06	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	06/13/24 07:30	06/14/24 07:06	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	**15.1**	ug/L	10.0	4.4	1	06/13/24 07:30	06/14/24 03:44	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/20/24 10:45	06/20/24 21:15	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024
Pace Project No.: 50375622

Sample: DUP6 **Lab ID: 50375622005** Collected: 06/11/24 08:00 Received: 06/12/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**792**	mg/L	10.0	10.0	1		06/18/24 01:33		
Alkalinity,Bicarbonate (CaCO3)	**792**	mg/L	10.0	10.0	1		06/18/24 01:33		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/18/24 01:33		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1170**	mg/L	20.0	20.0	1		06/18/24 11:19		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.0**	Std. Units	0.10	0.10	1		06/20/24 10:52		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		06/12/24 16:26	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		06/12/24 21:01	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**6.4**	mg/L	0.75	0.65	5	06/20/24 11:30	06/21/24 13:02		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**13.7**	mg/L	1.0	0.25	1		06/20/24 17:51		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024
Pace Project No.: 50375622

Sample: DUP7 **Lab ID: 50375622006** Collected: 06/11/24 08:00 Received: 06/12/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**33.0**	mg/L	2.5	0.67	10		06/16/24 00:13	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		06/15/24 23:56	16984-48-8	
Sulfate	**225**	mg/L	2.5	1.9	10		06/16/24 00:13	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**1750**	ug/L	100	11.4	1	06/20/24 22:06	06/23/24 22:17	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	06/20/24 22:06	06/23/24 22:17	7440-43-9	
Calcium	**195000**	ug/L	1000	56.7	1	06/20/24 22:06	06/23/24 22:17	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	06/20/24 22:06	06/23/24 22:17	7440-47-3	
Iron	ND	ug/L	100	18.1	1	06/20/24 22:06	06/23/24 22:17	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	06/20/24 22:06	06/23/24 22:17	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	06/20/24 22:06	06/23/24 22:17	7439-93-2	
Magnesium	**43500**	ug/L	1000	32.8	1	06/20/24 22:06	06/23/24 22:17	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	06/20/24 22:06	06/23/24 22:17	7439-98-7	
Potassium	**2900**	ug/L	1000	120	1	06/20/24 22:06	06/23/24 22:17	7440-09-7	
Sodium	**24800**	ug/L	1000	48.2	1	06/20/24 22:06	06/23/24 22:17	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**1880**	ug/L	100	11.4	1	06/19/24 20:39	06/20/24 20:26	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	06/19/24 20:39	06/20/24 20:26	7439-93-2	
Magnesium, Dissolved	**45000**	ug/L	1000	32.8	1	06/19/24 20:39	06/20/24 20:26	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	06/19/24 20:39	06/20/24 20:26	7439-98-7	
Potassium, Dissolved	**3240**	ug/L	1000	120	1	06/19/24 20:39	06/20/24 20:26	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.044	1	06/13/24 07:30	06/14/24 07:10	7440-36-0	
Arsenic	ND	ug/L	1.0	0.064	1	06/13/24 07:30	06/14/24 07:10	7440-38-2	
Barium	**22.1**	ug/L	1.0	0.067	1	06/13/24 07:30	06/14/24 07:10	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	06/13/24 07:30	06/14/24 07:10	7440-41-7	
Cobalt	**1.5**	ug/L	1.0	0.024	1	06/13/24 07:30	06/14/24 07:10	7440-48-4	
Manganese	**1420**	ug/L	10.0	0.43	10	06/13/24 07:30	06/15/24 11:25	7439-96-5	
Selenium	**5.2**	ug/L	1.0	0.23	1	06/13/24 07:30	06/14/24 07:10	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	06/13/24 07:30	06/14/24 07:10	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	06/13/24 07:30	06/14/24 03:48	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/20/24 10:45	06/20/24 21:17	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024
Pace Project No.: 50375622

Sample: DUP7 **Lab ID: 50375622006** Collected: 06/11/24 08:00 Received: 06/12/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**484**	mg/L	10.0	10.0	1		06/18/24 00:00		
Alkalinity,Bicarbonate (CaCO3)	**484**	mg/L	10.0	10.0	1		06/18/24 00:00		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/18/24 00:00		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**798**	mg/L	10.0	10.0	1		06/18/24 11:19		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		06/20/24 10:53		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		06/12/24 16:26	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	**0.85**	mg/L	0.10	0.013	1		06/12/24 21:03	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	06/20/24 11:30	06/21/24 11:51		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.8**	mg/L	1.0	0.25	1		06/20/24 18:07		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024
Pace Project No.: 50375622

Sample: Field Blank 4 **Lab ID: 50375622007** Collected: 06/11/24 11:41 Received: 06/12/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	ND	mg/L	0.25	0.067	1		06/16/24 00:30	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		06/16/24 00:30	16984-48-8	
Sulfate	ND	mg/L	0.25	0.19	1		06/16/24 00:30	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	ND	ug/L	100	11.4	1	06/20/24 22:06	06/23/24 22:19	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	06/20/24 22:06	06/23/24 22:19	7440-43-9	
Calcium	ND	ug/L	1000	56.7	1	06/20/24 22:06	06/23/24 22:19	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	06/20/24 22:06	06/23/24 22:19	7440-47-3	
Iron	ND	ug/L	100	18.1	1	06/20/24 22:06	06/23/24 22:19	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	06/20/24 22:06	06/23/24 22:19	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	06/20/24 22:06	06/23/24 22:19	7439-93-2	
Magnesium	ND	ug/L	1000	32.8	1	06/20/24 22:06	06/23/24 22:19	7439-95-4	
Molybdenum	ND	ug/L	10.0	1.1	1	06/20/24 22:06	06/23/24 22:19	7439-98-7	
Potassium	ND	ug/L	1000	120	1	06/20/24 22:06	06/23/24 22:19	7440-09-7	
Sodium	ND	ug/L	1000	48.2	1	06/20/24 22:06	06/23/24 22:19	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	ND	ug/L	100	11.4	1	06/19/24 20:39	06/20/24 20:28	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	5.1	1	06/19/24 20:39	06/20/24 20:28	7439-93-2	
Magnesium, Dissolved	ND	ug/L	1000	32.8	1	06/19/24 20:39	06/20/24 20:28	7439-95-4	
Molybdenum, Dissolved	ND	ug/L	10.0	1.1	1	06/19/24 20:39	06/20/24 20:28	7439-98-7	
Potassium, Dissolved	ND	ug/L	1000	120	1	06/19/24 20:39	06/20/24 20:28	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.044	1	06/13/24 07:30	06/14/24 07:14	7440-36-0	
Arsenic	ND	ug/L	1.0	0.064	1	06/13/24 07:30	06/14/24 07:14	7440-38-2	
Barium	ND	ug/L	1.0	0.067	1	06/13/24 07:30	06/14/24 07:14	7440-39-3	
Beryllium	ND	ug/L	0.20	0.026	1	06/13/24 07:30	06/14/24 07:14	7440-41-7	
Cobalt	ND	ug/L	1.0	0.024	1	06/13/24 07:30	06/14/24 07:14	7440-48-4	
Manganese	ND	ug/L	1.0	0.043	1	06/13/24 07:30	06/14/24 07:14	7439-96-5	
Selenium	ND	ug/L	1.0	0.23	1	06/13/24 07:30	06/14/24 07:14	7782-49-2	
Thallium	ND	ug/L	1.0	0.042	1	06/13/24 07:30	06/14/24 07:14	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	06/13/24 07:30	06/14/24 03:51	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	06/20/24 10:45	06/20/24 21:19	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024
Pace Project No.: 50375622

Sample: Field Blank 4 **Lab ID: 50375622007** Collected: 06/11/24 11:41 Received: 06/12/24 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	ND	mg/L	10.0	10.0	1		06/18/24 01:33		
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/18/24 01:33		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/18/24 01:33		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		06/18/24 11:19		PL
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**8.2**	Std. Units	0.10	0.10	1		06/20/24 10:55		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		06/12/24 16:26	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		06/12/24 21:30	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	ND	mg/L	0.15	0.13	1	06/20/24 11:30	06/21/24 11:52		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	ND	mg/L	1.0	0.25	1		06/20/24 18:21		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375622

QC Batch: 795316
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375622001, 50375622002, 50375622003, 50375622004, 50375622005, 50375622006, 50375622007

METHOD BLANK: 3638804 Matrix: Water
Associated Lab Samples: 50375622001, 50375622002, 50375622003, 50375622004, 50375622005, 50375622006, 50375622007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	06/15/24 19:10	
Fluoride	mg/L	ND	0.10	0.017	06/15/24 19:10	
Sulfate	mg/L	ND	0.25	0.19	06/15/24 19:10	

LABORATORY CONTROL SAMPLE: 3638805

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	97	80-120	
Fluoride	mg/L	1	1.1	107	80-120	
Sulfate	mg/L	5	5.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3638806 3638807

Parameter	Units	50375030002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	1.3	2.5	2.5	3.7	3.8	98	99	80-120	1	15	
Fluoride	mg/L	0.11	1	1	1.2	1.2	112	113	80-120	0	15	
Sulfate	mg/L	21.6	5	5	26.9	26.9	106	106	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375622

QC Batch: 796276
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375622001, 50375622002, 50375622003, 50375622004, 50375622005, 50375622006, 50375622007

METHOD BLANK: 3643489 Matrix: Water
Associated Lab Samples: 50375622001, 50375622002, 50375622003, 50375622004, 50375622005, 50375622006, 50375622007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	06/20/24 20:50	

LABORATORY CONTROL SAMPLE: 3643490

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3643491 3643492

Parameter	Units	50375622003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.6	4.6	91	92	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375622

QC Batch: 796404
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375622001, 50375622002, 50375622003, 50375622004, 50375622005, 50375622006, 50375622007

METHOD BLANK: 3643963 Matrix: Water
Associated Lab Samples: 50375622001, 50375622002, 50375622003, 50375622004, 50375622005, 50375622006, 50375622007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	11.4	06/23/24 21:30	
Cadmium	ug/L	ND	2.0	0.74	06/23/24 21:30	
Calcium	ug/L	ND	1000	56.7	06/23/24 21:30	
Chromium	ug/L	ND	10.0	1.4	06/23/24 21:30	
Iron	ug/L	ND	100	18.1	06/23/24 21:30	
Lead	ug/L	ND	10.0	4.0	06/23/24 21:30	
Lithium	ug/L	ND	20.0	5.1	06/23/24 21:30	
Magnesium	ug/L	ND	1000	32.8	06/23/24 21:30	
Molybdenum	ug/L	ND	10.0	1.1	06/23/24 21:30	
Potassium	ug/L	ND	1000	120	06/23/24 21:30	
Sodium	ug/L	ND	1000	48.2	06/23/24 21:30	

LABORATORY CONTROL SAMPLE: 3643964

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	976	98	80-120	
Cadmium	ug/L	1000	1000	100	80-120	
Calcium	ug/L	10000	10300	103	80-120	
Chromium	ug/L	1000	1010	101	80-120	
Iron	ug/L	10000	9980	100	80-120	
Lead	ug/L	1000	977	98	80-120	
Lithium	ug/L	1000	1040	104	80-120	
Magnesium	ug/L	10000	9930	99	80-120	
Molybdenum	ug/L	1000	1030	103	80-120	
Potassium	ug/L	10000	10100	101	80-120	
Sodium	ug/L	10000	9980	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3643965 3643966

Parameter	Units	50375735001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	150	1000	1000	1150	1120	100	97	75-125	2	20	
Cadmium	ug/L	ND	1000	1000	995	969	99	97	75-125	3	20	
Calcium	ug/L	586000	10000	10000	593000	576000	72	-98	75-125	3	20	P6
Chromium	ug/L	63.7	1000	1000	1030	1000	96	94	75-125	3	20	
Iron	ug/L	60200	10000	10000	68400	66400	82	62	75-125	3	20	P6
Lead	ug/L	48.2	1000	1000	922	905	87	86	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375622

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3643965 3643966

Parameter	Units	50375735001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	41.3	1000	1000	1050	1020	101	98	75-125	3	20	
Magnesium	ug/L	121000	10000	10000	130000	128000	85	61	75-125	2	20	P6
Molybdenum	ug/L	28.2	1000	1000	1020	1000	100	97	75-125	2	20	
Potassium	ug/L	8370	10000	10000	20100	19400	117	110	75-125	4	20	
Sodium	ug/L	351000	10000	10000	355000	349000	45	-12	75-125	2	20	P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375622

QC Batch: 796443
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375622001, 50375622002, 50375622003, 50375622004, 50375622005, 50375622006, 50375622007

METHOD BLANK: 3644289 Matrix: Water
Associated Lab Samples: 50375622001, 50375622002, 50375622003, 50375622004, 50375622005, 50375622006, 50375622007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	11.4	06/20/24 19:36	
Lithium, Dissolved	ug/L	ND	20.0	5.1	06/20/24 19:36	
Magnesium, Dissolved	ug/L	ND	1000	32.8	06/20/24 19:36	
Molybdenum, Dissolved	ug/L	ND	10.0	1.1	06/20/24 19:36	
Potassium, Dissolved	ug/L	ND	1000	120	06/20/24 19:36	

LABORATORY CONTROL SAMPLE: 3644290

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	932	93	80-120	
Lithium, Dissolved	ug/L	1000	965	97	80-120	
Magnesium, Dissolved	ug/L	10000	9350	94	80-120	
Molybdenum, Dissolved	ug/L	1000	958	96	80-120	
Potassium, Dissolved	ug/L	10000	9450	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3644291 3644292

Parameter	Units	50375567001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	1.3 mg/L	1000	1000	2360	2350	106	105	75-125	0	20	
Lithium, Dissolved	ug/L	0.060 mg/L	1000	1000	1030	1040	97	98	75-125	1	20	
Magnesium, Dissolved	ug/L	4.6 mg/L	10000	10000	13900	13900	93	93	75-125	0	20	
Molybdenum, Dissolved	ug/L	ND	1000	1000	990	991	99	99	75-125	0	20	
Potassium, Dissolved	ug/L	5.0 mg/L	10000	10000	15200	15300	102	103	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375622

QC Batch: 795371
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375622001, 50375622002, 50375622003, 50375622004, 50375622005, 50375622006, 50375622007

METHOD BLANK: 3639123 Matrix: Water
Associated Lab Samples: 50375622001, 50375622002, 50375622003, 50375622004, 50375622005, 50375622006, 50375622007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.044	06/14/24 06:34	
Arsenic	ug/L	ND	1.0	0.064	06/14/24 06:34	
Barium	ug/L	ND	1.0	0.067	06/14/24 06:34	
Beryllium	ug/L	ND	0.20	0.026	06/14/24 06:34	
Cobalt	ug/L	ND	1.0	0.024	06/14/24 06:34	
Manganese	ug/L	ND	1.0	0.043	06/14/24 06:34	
Selenium	ug/L	ND	1.0	0.23	06/14/24 06:34	
Thallium	ug/L	ND	1.0	0.042	06/14/24 06:34	

LABORATORY CONTROL SAMPLE: 3639124

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	41.4	103	80-120	
Arsenic	ug/L	40	38.7	97	80-120	
Barium	ug/L	40	38.9	97	80-120	
Beryllium	ug/L	40	37.9	95	80-120	
Cobalt	ug/L	40	40.5	101	80-120	
Manganese	ug/L	40	40.9	102	80-120	
Selenium	ug/L	40	39.5	99	80-120	
Thallium	ug/L	40	41.1	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3639125 3639126

Parameter	Units	50375617006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	<1.0	40	40	41.4	41.4	103	103	75-125	0	20	
Arsenic	ug/L	92.0	40	40	128	125	90	82	75-125	3	20	
Barium	ug/L	61.4	40	40	107	104	114	108	75-125	2	20	
Beryllium	ug/L	<0.20	40	40	39.2	38.9	98	97	75-125	1	20	
Cobalt	ug/L	1.8	40	40	41.3	41.2	99	99	75-125	0	20	
Manganese	ug/L	122	40	40	160	156	95	86	75-125	2	20	
Selenium	ug/L	<1.0	40	40	35.0	34.6	87	86	75-125	1	20	
Thallium	ug/L	<1.0	40	40	42.4	42.5	106	106	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375622

QC Batch: 795373
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375622001, 50375622002, 50375622003, 50375622004, 50375622005, 50375622006, 50375622007

METHOD BLANK: 3639143 Matrix: Water
Associated Lab Samples: 50375622001, 50375622002, 50375622003, 50375622004, 50375622005, 50375622006, 50375622007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	4.4	06/14/24 03:15	

LABORATORY CONTROL SAMPLE: 3639144

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	409	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3639145 3639146

Parameter	Units	50375611006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	56.8	400	400	472	467	104	102	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375622

QC Batch: 796143 | Analysis Method: SM 2320B
QC Batch Method: SM 2320B | Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375622001, 50375622002, 50375622003, 50375622004, 50375622006

METHOD BLANK: 3643094 Matrix: Water
Associated Lab Samples: 50375622001, 50375622002, 50375622003, 50375622004, 50375622006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	06/18/24 00:00	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	06/18/24 00:00	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	06/18/24 00:00	

LABORATORY CONTROL SAMPLE: 3643095

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.9	102	90-110	

SAMPLE DUPLICATE: 3643096

Parameter	Units	50375030001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	389	397	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	389	397	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3643097

Parameter	Units	50375622001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	485	495	2	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	485	495	2	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375622

QC Batch: 796179
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375622005, 50375622007

METHOD BLANK: 3643211 Matrix: Water
Associated Lab Samples: 50375622005, 50375622007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	06/18/24 01:33	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	06/18/24 01:33	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	06/18/24 01:33	

LABORATORY CONTROL SAMPLE: 3643212

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.9	102	90-110	

SAMPLE DUPLICATE: 3643213

Parameter	Units	50375854002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	335	338	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	335	338	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375622

QC Batch: 796006
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375622001, 50375622002, 50375622003, 50375622004

METHOD BLANK: 3642646 Matrix: Water
Associated Lab Samples: 50375622001, 50375622002, 50375622003, 50375622004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	06/17/24 09:55	

LABORATORY CONTROL SAMPLE: 3642647

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	303	101	80-120	

SAMPLE DUPLICATE: 3642648

Parameter	Units	50375612001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	53	54	2	10	

SAMPLE DUPLICATE: 3642649

Parameter	Units	50375622004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1480	1500	2	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375622

QC Batch: 796209
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375622005, 50375622006, 50375622007

METHOD BLANK: 3643282 Matrix: Water
Associated Lab Samples: 50375622005, 50375622006, 50375622007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	06/18/24 11:18	

LABORATORY CONTROL SAMPLE: 3643283

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	266	89	80-120	

SAMPLE DUPLICATE: 3643284

Parameter	Units	50375673004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1170	1150	1	10	

SAMPLE DUPLICATE: 3643285

Parameter	Units	50375815010 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	333	352	6	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375622

QC Batch: 796286
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375622001, 50375622002, 50375622003, 50375622004

SAMPLE DUPLICATE: 3643516

Parameter	Units	50375284002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.9	7.0	1	2	H3

SAMPLE DUPLICATE: 3643517

Parameter	Units	50375622004 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.2	7.2	0	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375622

QC Batch: 796290
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375622005, 50375622006, 50375622007

SAMPLE DUPLICATE: 3643533

Parameter	Units	50375622005 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.0	6.9	1	2	H3

SAMPLE DUPLICATE: 3643534

Parameter	Units	50375030011 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.5	7.4	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375622

QC Batch: 795226
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375622001, 50375622002

METHOD BLANK: 3638389 Matrix: Water
Associated Lab Samples: 50375622001, 50375622002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	06/12/24 15:46	

LABORATORY CONTROL SAMPLE: 3638390

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3638391 3638392

Parameter	Units	50375493002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.52	0.51	102	101	90-110	0	20	

MATRIX SPIKE SAMPLE: 3638393

Parameter	Units	50375538003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.40	75	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375622

QC Batch: 795342
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375622003, 50375622004, 50375622005, 50375622006, 50375622007

METHOD BLANK: 3638962 Matrix: Water
Associated Lab Samples: 50375622003, 50375622004, 50375622005, 50375622006, 50375622007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	06/12/24 16:26	

LABORATORY CONTROL SAMPLE: 3638963

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3638964 3638965

Parameter	Units	50375622003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.51	0.52	100	101	90-110	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375622

QC Batch: 795410
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375622001, 50375622005, 50375622006, 50375622007

METHOD BLANK: 3639542 Matrix: Water
Associated Lab Samples: 50375622001, 50375622005, 50375622006, 50375622007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	06/12/24 20:51	

LABORATORY CONTROL SAMPLE: 3639543

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3639544 3639545

Parameter	Units	50375694005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.0	1.0	100	99	90-110	0	20	

MATRIX SPIKE SAMPLE: 3639546

Parameter	Units	50375694001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	0.99	99	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375622

QC Batch: 795411
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375622002, 50375622003, 50375622004

METHOD BLANK: 3639547 Matrix: Water
Associated Lab Samples: 50375622002, 50375622003, 50375622004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	06/12/24 21:45	

LABORATORY CONTROL SAMPLE: 3639548

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.99	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3639549 3639550

Parameter	Units	50375617001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	<0.10	1	1	0.76	0.76	75	75	90-110	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375622

QC Batch: 796754
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375622001, 50375622002, 50375622003, 50375622004

METHOD BLANK: 3645319 Matrix: Water
Associated Lab Samples: 50375622001, 50375622002, 50375622003, 50375622004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	06/21/24 09:15	

LABORATORY CONTROL SAMPLE: 3645320

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3645321 3645322

Parameter	Units	50375418001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	2.8			4.3	4.4				2		

MATRIX SPIKE SAMPLE: 3645323

Parameter	Units	50375516005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	<0.15		1.5			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375622

QC Batch: 796755
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375622005, 50375622006, 50375622007

METHOD BLANK: 3645324 Matrix: Water
Associated Lab Samples: 50375622005, 50375622006, 50375622007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	06/21/24 11:49	

LABORATORY CONTROL SAMPLE: 3645325

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3645326 3645327

Parameter	Units	50375643006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	2.4			4.0	3.7				7		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024
Pace Project No.: 50375622

QC Batch: 796752 | Analysis Method: SM 5310C
QC Batch Method: SM 5310C | Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375622001, 50375622002, 50375622003, 50375622004, 50375622005, 50375622006, 50375622007

METHOD BLANK: 3645309 Matrix: Water
Associated Lab Samples: 50375622001, 50375622002, 50375622003, 50375622004, 50375622005, 50375622006, 50375622007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	06/20/24 13:07	

LABORATORY CONTROL SAMPLE: 3645310

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3645311 3645312

Parameter	Units	50375567002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	11.1	80	80	89.9	92.2	98	101	80-120	3	20	

MATRIX SPIKE SAMPLE: 3645313

Parameter	Units	50375622004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	2.2	10	12.2	100	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024
Pace Project No.: 50375622

Sample: MW-26B **Lab ID: 50375622001** Collected: 06/11/24 10:53 Received: 06/12/24 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • Received 2 X BP1N for each sample, not 1 X BP1N as listed on COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.535 ± 0.666 (1.11) C:NA T:91%**	pCi/L	07/02/24 15:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.376 ± 0.390 (0.808) C:76% T:91%**	pCi/L	06/28/24 14:35	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.911 ± 1.06 (1.92)**	pCi/L	07/03/24 14:29	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024
Pace Project No.: 50375622

Sample: MW-27B **Lab ID: 50375622002** Collected: 06/11/24 12:50 Received: 06/12/24 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.86 ± 0.918 (1.17) C:NA T:86%**	pCi/L	07/02/24 15:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.05 ± 0.490 (0.805) C:75% T:83%**	pCi/L	06/28/24 14:35	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.91 ± 1.41 (1.98)**	pCi/L	07/03/24 14:29	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024
Pace Project No.: 50375622

Sample: MW-28A **Lab ID: 50375622003** Collected: 06/11/24 15:00 Received: 06/12/24 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.756 ± 0.752 (1.20) C:NA T:89%**	pCi/L	07/02/24 15:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.25 ± 0.473 (0.689) C:77% T:91%**	pCi/L	06/28/24 14:35	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.01 ± 1.23 (1.89)**	pCi/L	07/03/24 14:29	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024
Pace Project No.: 50375622

Sample: MW-28B **Lab ID: 50375622004** Collected: 06/11/24 15:30 Received: 06/12/24 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.422 ± 0.529 (0.878) C:NA T:90%**	pCi/L	07/02/24 15:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.09 ± 0.519 (0.884) C:77% T:81%**	pCi/L	06/28/24 14:35	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.51 ± 1.05 (1.76)**	pCi/L	07/03/24 14:29	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024
Pace Project No.: 50375622

Sample: DUP6 **Lab ID: 50375622005** Collected: 06/11/24 08:00 Received: 06/12/24 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.91 ± 0.873 (1.03) C:NA T:88%**	pCi/L	07/02/24 15:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.34 ± 0.519 (0.779) C:75% T:88%**	pCi/L	06/28/24 14:35	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**3.25 ± 1.39 (1.81)**	pCi/L	07/03/24 14:29	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024
Pace Project No.: 50375622

Sample: DUP7 **Lab ID: 50375622006** Collected: 06/11/24 08:00 Received: 06/12/24 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.279 ± 0.570 (1.01) C:NA T:89%**	pCi/L	07/02/24 16:09	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.907 ± 0.448 (0.746) C:71% T:87%**	pCi/L	06/28/24 14:35	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.19 ± 1.02 (1.76)**	pCi/L	07/03/24 14:29	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg May 2024
Pace Project No.: 50375622

Sample: Field Blank 4 **Lab ID: 50375622007** Collected: 06/11/24 11:41 Received: 06/12/24 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.311 ± 0.558 (1.16) C:NA T:96%**	pCi/L	07/02/24 16:09	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.100 ± 0.323 (0.731) C:76% T:93%**	pCi/L	06/28/24 14:36	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.1000 ± 0.881 (1.89)**	pCi/L	07/03/24 14:29	7440-14-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024
Pace Project No.: 50375622

QC Batch: 675868
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50375622001, 50375622002, 50375622003, 50375622004, 50375622005, 50375622006, 50375622007

METHOD BLANK: 3290815 Matrix: Water
Associated Lab Samples: 50375622001, 50375622002, 50375622003, 50375622004, 50375622005, 50375622006, 50375622007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.445 ± 0.387 (0.778) C:74% T:87%	pCi/L	06/28/24 14:35	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg May 2024
Pace Project No.: 50375622

QC Batch: 675867
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50375622001, 50375622002, 50375622003, 50375622004, 50375622005, 50375622006, 50375622007

METHOD BLANK: 3290813 Matrix: Water
Associated Lab Samples: 50375622001, 50375622002, 50375622003, 50375622004, 50375622005, 50375622006, 50375622007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0906 ± 0.207 (0.333) C:NA T:90%	pCi/L	07/02/24 15:55	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024
Pace Project No.: 50375622

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
PL	The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024
Pace Project No.: 50375622

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50375622001	**MW-26B**	EPA 9056	795316		
50375622002	**MW-27B**	EPA 9056	795316		
50375622003	**MW-28A**	EPA 9056	795316		
50375622004	**MW-28B**	EPA 9056	795316		
50375622005	**DUP6**	EPA 9056	795316		
50375622006	**DUP7**	EPA 9056	795316		
50375622007	**Field Blank 4**	EPA 9056	795316		
50375622001	**MW-26B**	EPA 3010	796404	EPA 6010	797205
50375622002	**MW-27B**	EPA 3010	796404	EPA 6010	797205
50375622003	**MW-28A**	EPA 3010	796404	EPA 6010	797205
50375622004	**MW-28B**	EPA 3010	796404	EPA 6010	797205
50375622005	**DUP6**	EPA 3010	796404	EPA 6010	797205
50375622006	**DUP7**	EPA 3010	796404	EPA 6010	797205
50375622007	**Field Blank 4**	EPA 3010	796404	EPA 6010	797205
50375622001	**MW-26B**	EPA 3010	796443	EPA 6010	796918
50375622002	**MW-27B**	EPA 3010	796443	EPA 6010	796918
50375622003	**MW-28A**	EPA 3010	796443	EPA 6010	796918
50375622004	**MW-28B**	EPA 3010	796443	EPA 6010	796918
50375622005	**DUP6**	EPA 3010	796443	EPA 6010	796918
50375622006	**DUP7**	EPA 3010	796443	EPA 6010	796918
50375622007	**Field Blank 4**	EPA 3010	796443	EPA 6010	796918
50375622001	**MW-26B**	EPA 200.2	795371	EPA 6020	795585
50375622002	**MW-27B**	EPA 200.2	795371	EPA 6020	795585
50375622003	**MW-28A**	EPA 200.2	795371	EPA 6020	795585
50375622004	**MW-28B**	EPA 200.2	795371	EPA 6020	795585
50375622005	**DUP6**	EPA 200.2	795371	EPA 6020	795585
50375622006	**DUP7**	EPA 200.2	795371	EPA 6020	795585
50375622007	**Field Blank 4**	EPA 200.2	795371	EPA 6020	795585
50375622001	**MW-26B**	EPA 200.2	795373	EPA 6020	795587
50375622002	**MW-27B**	EPA 200.2	795373	EPA 6020	795587
50375622003	**MW-28A**	EPA 200.2	795373	EPA 6020	795587
50375622004	**MW-28B**	EPA 200.2	795373	EPA 6020	795587
50375622005	**DUP6**	EPA 200.2	795373	EPA 6020	795587
50375622006	**DUP7**	EPA 200.2	795373	EPA 6020	795587
50375622007	**Field Blank 4**	EPA 200.2	795373	EPA 6020	795587
50375622001	**MW-26B**	EPA 7470	796276	EPA 7470	796931
50375622002	**MW-27B**	EPA 7470	796276	EPA 7470	796931
50375622003	**MW-28A**	EPA 7470	796276	EPA 7470	796931
50375622004	**MW-28B**	EPA 7470	796276	EPA 7470	796931
50375622005	**DUP6**	EPA 7470	796276	EPA 7470	796931
50375622006	**DUP7**	EPA 7470	796276	EPA 7470	796931
50375622007	**Field Blank 4**	EPA 7470	796276	EPA 7470	796931
50375622001	**MW-26B**	EPA 903.1	675867		
50375622002	**MW-27B**	EPA 903.1	675867		
50375622003	**MW-28A**	EPA 903.1	675867		
50375622004	**MW-28B**	EPA 903.1	675867		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024
Pace Project No.: 50375622

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50375622005	**DUP6**	EPA 903.1	675867		
50375622006	**DUP7**	EPA 903.1	675867		
50375622007	**Field Blank 4**	EPA 903.1	675867		
50375622001	**MW-26B**	EPA 904.0	675868		
50375622002	**MW-27B**	EPA 904.0	675868		
50375622003	**MW-28A**	EPA 904.0	675868		
50375622004	**MW-28B**	EPA 904.0	675868		
50375622005	**DUP6**	EPA 904.0	675868		
50375622006	**DUP7**	EPA 904.0	675868		
50375622007	**Field Blank 4**	EPA 904.0	675868		
50375622001	**MW-26B**	Total Radium Calculation	680211		
50375622002	**MW-27B**	Total Radium Calculation	680211		
50375622003	**MW-28A**	Total Radium Calculation	680211		
50375622004	**MW-28B**	Total Radium Calculation	680211		
50375622005	**DUP6**	Total Radium Calculation	680211		
50375622006	**DUP7**	Total Radium Calculation	680211		
50375622007	**Field Blank 4**	Total Radium Calculation	680211		
50375622001	**MW-26B**	SM 2320B	796143		
50375622002	**MW-27B**	SM 2320B	796143		
50375622003	**MW-28A**	SM 2320B	796143		
50375622004	**MW-28B**	SM 2320B	796143		
50375622005	**DUP6**	SM 2320B	796179		
50375622006	**DUP7**	SM 2320B	796143		
50375622007	**Field Blank 4**	SM 2320B	796179		
50375622001	**MW-26B**	SM 2540C	796006		
50375622002	**MW-27B**	SM 2540C	796006		
50375622003	**MW-28A**	SM 2540C	796006		
50375622004	**MW-28B**	SM 2540C	796006		
50375622005	**DUP6**	SM 2540C	796209		
50375622006	**DUP7**	SM 2540C	796209		
50375622007	**Field Blank 4**	SM 2540C	796209		
50375622001	**MW-26B**	SM 4500-H+B	796286		
50375622002	**MW-27B**	SM 4500-H+B	796286		
50375622003	**MW-28A**	SM 4500-H+B	796286		
50375622004	**MW-28B**	SM 4500-H+B	796286		
50375622005	**DUP6**	SM 4500-H+B	796290		
50375622006	**DUP7**	SM 4500-H+B	796290		
50375622007	**Field Blank 4**	SM 4500-H+B	796290		
50375622001	**MW-26B**	SM 4500-S2-D	795226		
50375622002	**MW-27B**	SM 4500-S2-D	795226		
50375622003	**MW-28A**	SM 4500-S2-D	795342		
50375622004	**MW-28B**	SM 4500-S2-D	795342		
50375622005	**DUP6**	SM 4500-S2-D	795342		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024
Pace Project No.: 50375622

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50375622006	**DUP7**	SM 4500-S2-D	795342		
50375622007	**Field Blank 4**	SM 4500-S2-D	795342		
50375622001	**MW-26B**	EPA 353.2	795410		
50375622002	**MW-27B**	EPA 353.2	795411		
50375622003	**MW-28A**	EPA 353.2	795411		
50375622004	**MW-28B**	EPA 353.2	795411		
50375622005	**DUP6**	EPA 353.2	795410		
50375622006	**DUP7**	EPA 353.2	795410		
50375622007	**Field Blank 4**	EPA 353.2	795410		
50375622001	**MW-26B**	EPA 365.1	796754	EPA 365.1	797003
50375622002	**MW-27B**	EPA 365.1	796754	EPA 365.1	797003
50375622003	**MW-28A**	EPA 365.1	796754	EPA 365.1	797003
50375622004	**MW-28B**	EPA 365.1	796754	EPA 365.1	797003
50375622005	**DUP6**	EPA 365.1	796755	EPA 365.1	797139
50375622006	**DUP7**	EPA 365.1	796755	EPA 365.1	797139
50375622007	**Field Blank 4**	EPA 365.1	796755	EPA 365.1	797139
50375622001	**MW-26B**	SM 5310C	796752		
50375622002	**MW-27B**	SM 5310C	796752		
50375622003	**MW-28A**	SM 5310C	796752		
50375622004	**MW-28B**	SM 5310C	796752		
50375622005	**DUP6**	SM 5310C	796752		
50375622006	**DUP7**	SM 5310C	796752		
50375622007	**Field Blank 4**	SM 5310C	796752		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY /

The Chain-of-Custody is a LEGAL D

WO# : 50375622

50375622

Page: 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P4 May 2024	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:		Pace Profile #:	10498/60

Regulatory Agency

State / Location: IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS/ NO3 Wet	(Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity,pH	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum	Residual Chlorine (Y/N)	
	MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																	Y				Y						
1	MW-26					6-11	1053		10	X	X	X		X				X	X	X	X	X	X	X	X	X		001
2	MW-27B					6-11	1230																					002
3	MW-28A					6-11	1500																					003
4	MW-28B					6-11	1530																					004
5	Dup 6					6-11	X																					005
6	Dup 7					6-11	X																					006
7	Field Blank 4					6-11	1141																					007
8																												
9																												
10																												
11																												
12																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Metals: 6010 (B, Cd, Cr, Fe, Pb, Mo, Ca, Mg, Na, K, Li) (11)	Hayley Daw ATLAS FE	6-11-24	1630	Fedex	6-11-24	16:30				
6020 (Be, Mn, Co, As, Se, Sb, Ba, Tl) (8), 7470 (Hg)				Paul Pearson/Pace	6/12/24	0930	see cond	y	y	y
* Dissolved FF 6010 (B, Mo, Mg, K, Li) (5) FF 6020 (Al) (1)										
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Hayley Daw					
SIGNATURE of SAMPLER:	Hayley Daw	DATE Signed: 6-11-24				

F-IN-Q-290-rev.26, 30Apr2024

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: DMP 6/12/24 10:56

1. **Courier:** ☑FED EX ☐UPS ☐CLIENT ☐PACE ☐NOW/JETT ☐OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A (B) C D E F G H
4. **Cooler Temperature(s):** 0.6/0.6 | 1.1/1.1 | 0.5/0.5 | _____
   (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☐Bubble Wrap ☑Bubble Bags ☐None ☐Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **Was the PM notified of out of temp cooler?:** ☐Yes ☐No
   Cooler temp should be above freezing to 6°C
8. **EZ Bottle Order?** ☐Yes ☑No
   If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis: NO3 wet	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 1300			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID		✓	Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)		N/A	Trip Blank Custody Seals?:			✓

COMMENTS: RCVD containers labeled MW-26B with a date/time of 6/11/24 1053.
DMP 6/12/24

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1													1			2	1	2	1	1	1		1				WT	✓	✓		✓
2													↓			↓	↓	↓	↓	↓	↓		↓				↓	↓	↓		↓
3													↓			↓	↓	↓	↓	↓	↓		↓				↓	↓	↓		↓
4													↓			↓	↓	↓	↓	↓	↓		↓				↓	↓	↓		↓
5													↓			↓	↓	↓	↓	↓	↓		↓				↓	↓	↓		↓
6													↓			↓	↓	↓	↓	↓	↓		↓				↓	↓	↓		↓
7													↓			↓	↓	↓	↓	↓	↓		↓				↓	↓	↓		↓
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP3R	250mL Unpres. FF SO4/OH buffer
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

July 24, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg P4 May 2024
Pace Project No.: 50375751

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on June 13, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg P4 May 2024
Pace Project No.: 50375751

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg P4 May 2024
Pace Project No.: 50375751

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50375751001	**MW-28I**	Water	06/12/24 12:53	06/13/24 09:35

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg P4 May 2024
Pace Project No.: 50375751

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50375751001	**MW-28I**	EPA 9056	KBB	3	PASI-I
		EPA 6010	ELK	11	PASI-I
		EPA 6010	JPK	5	PASI-I
		EPA 6020	DMT	8	PASI-I
		EPA 6020	DMT	1	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2320B	DAW	3	PASI-I
		SM 2540C	SL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		SM 4500-S2-D	AEL	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		EPA 365.1	YAM	1	PASI-I
		SM 5310C	YAM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg P4 May 2024
Pace Project No.: 50375751

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50375751001	**MW-28I**					
EPA 9056	Chloride	211	mg/L	2.5	06/15/24 11:47	
EPA 9056	Sulfate	1120	mg/L	25.0	06/15/24 12:04	
EPA 6010	Boron	25300	ug/L	100	06/25/24 13:40	
EPA 6010	Calcium	563000	ug/L	5000	06/25/24 14:22	
EPA 6010	Iron	9600	ug/L	100	06/25/24 13:40	
EPA 6010	Magnesium	17200	ug/L	1000	06/25/24 13:40	
EPA 6010	Molybdenum	600	ug/L	10.0	06/25/24 13:40	
EPA 6010	Potassium	37300	ug/L	1000	06/25/24 13:40	
EPA 6010	Sodium	55400	ug/L	1000	06/25/24 13:40	
EPA 6010	Boron, Dissolved	25200	ug/L	100	06/21/24 01:47	
EPA 6010	Magnesium, Dissolved	17900	ug/L	1000	06/21/24 01:47	
EPA 6010	Molybdenum, Dissolved	602	ug/L	10.0	06/21/24 01:47	
EPA 6010	Potassium, Dissolved	38000	ug/L	1000	06/21/24 01:47	
EPA 6020	Arsenic	1.4	ug/L	1.0	06/18/24 02:36	
EPA 6020	Barium	31.3	ug/L	1.0	06/18/24 02:36	
EPA 6020	Manganese	1930	ug/L	20.0	06/18/24 03:38	
EPA 903.1	Radium-226	0.784 ± 0.725 (1.15) C:NA T:94%	pCi/L		07/05/24 14:02	
EPA 904.0	Radium-228	1.07 ± 0.419 (0.597) C:79% T:87%	pCi/L		07/02/24 14:36	
Total Radium Calculation	Total Radium	1.85 ± 1.14 (1.75)	pCi/L		07/08/24 09:32	
SM 2320B	Alkalinity, Total as CaCO3	150	mg/L	10.0	06/17/24 21:28	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	150	mg/L	10.0	06/17/24 21:28	
SM 2540C	Total Dissolved Solids	2270	mg/L	20.0	06/18/24 11:12	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	06/20/24 10:58	H3
EPA 365.1	Phosphate as P04	0.41	mg/L	0.15	06/21/24 14:15	
SM 5310C	Dissolved Organic Carbon	2.6	mg/L	1.0	06/20/24 18:32	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4 May 2024
Pace Project No.: 50375751

Sample: MW-28I **Lab ID: 50375751001** Collected: 06/12/24 12:53 Received: 06/13/24 09:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis								
Chloride	**211**	mg/L	2.5	0.67	10		06/15/24 11:47	16887-00-6	
Fluoride	ND	mg/L	0.10	0.017	1		06/15/24 11:30	16984-48-8	
Sulfate	**1120**	mg/L	25.0	19.0	100		06/15/24 12:04	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron	**25300**	ug/L	100	11.4	1	06/19/24 21:23	06/25/24 13:40	7440-42-8	
Cadmium	ND	ug/L	2.0	0.74	1	06/19/24 21:23	06/25/24 13:40	7440-43-9	
Calcium	**563000**	ug/L	5000	284	5	06/19/24 21:23	06/25/24 14:22	7440-70-2	
Chromium	ND	ug/L	10.0	1.4	1	06/19/24 21:23	06/25/24 13:40	7440-47-3	
Iron	**9600**	ug/L	100	18.1	1	06/19/24 21:23	06/25/24 13:40	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	06/19/24 21:23	06/25/24 13:40	7439-92-1	
Lithium	ND	ug/L	20.0	5.1	1	06/19/24 21:23	06/25/24 13:40	7439-93-2	
Magnesium	**17200**	ug/L	1000	32.8	1	06/19/24 21:23	06/25/24 13:40	7439-95-4	
Molybdenum	**600**	ug/L	10.0	1.1	1	06/19/24 21:23	06/25/24 13:40	7439-98-7	
Potassium	**37300**	ug/L	1000	120	1	06/19/24 21:23	06/25/24 13:40	7440-09-7	
Sodium	**55400**	ug/L	1000	48.2	1	06/19/24 21:23	06/25/24 13:40	7440-23-5	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Boron, Dissolved	**25200**	ug/L	100	6.2	1	06/20/24 08:19	06/21/24 01:47	7440-42-8	
Lithium, Dissolved	ND	ug/L	20.0	6.8	1	06/20/24 08:19	06/21/24 01:47	7439-93-2	
Magnesium, Dissolved	**17900**	ug/L	1000	33.6	1	06/20/24 08:19	06/21/24 01:47	7439-95-4	
Molybdenum, Dissolved	**602**	ug/L	10.0	0.78	1	06/20/24 08:19	06/21/24 01:47	7439-98-7	
Potassium, Dissolved	**38000**	ug/L	1000	97.8	1	06/20/24 08:19	06/21/24 01:47	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Antimony	ND	ug/L	1.0	0.27	1	06/14/24 16:00	06/18/24 02:36	7440-36-0	
Arsenic	**1.4**	ug/L	1.0	0.11	1	06/14/24 16:00	06/18/24 02:36	7440-38-2	
Barium	**31.3**	ug/L	1.0	0.090	1	06/14/24 16:00	06/18/24 02:36	7440-39-3	
Beryllium	ND	ug/L	0.20	0.030	1	06/14/24 16:00	06/18/24 02:36	7440-41-7	
Cobalt	ND	ug/L	1.0	0.16	1	06/14/24 16:00	06/18/24 02:36	7440-48-4	
Manganese	**1930**	ug/L	20.0	5.2	20	06/14/24 16:00	06/18/24 03:38	7439-96-5	
Selenium	ND	ug/L	1.0	0.22	1	06/14/24 16:00	06/18/24 02:36	7782-49-2	
Thallium	ND	ug/L	1.0	0.043	1	06/14/24 16:00	06/18/24 02:36	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Aluminum, Dissolved	ND	ug/L	10.0	4.4	1	06/15/24 11:55	06/18/24 16:05	7429-90-5	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	06/20/24 21:47	06/21/24 09:44	7439-97-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg P4 May 2024
Pace Project No.: 50375751

Sample: MW-28I **Lab ID: 50375751001** Collected: 06/12/24 12:53 Received: 06/13/24 09:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis								
Alkalinity, Total as CaCO3	**150**	mg/L	10.0	10.0	1		06/17/24 21:28		
Alkalinity,Bicarbonate (CaCO3)	**150**	mg/L	10.0	10.0	1		06/17/24 21:28		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	10.0	10.0	1		06/17/24 21:28		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2270**	mg/L	20.0	20.0	1		06/18/24 11:12		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		06/20/24 10:58		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D Pace Analytical Services - Indianapolis								
Sulfide	ND	mg/L	0.10	0.025	1		06/15/24 15:24	18496-25-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis								
Nitrogen, Nitrate	ND	mg/L	0.10	0.013	1		06/13/24 22:49	14797-55-8	
365.1 Total Phosphorus	Analytical Method: EPA 365.1 Preparation Method: EPA 365.1 Pace Analytical Services - Indianapolis								
Phosphate as P04	**0.41**	mg/L	0.15	0.13	1	06/21/24 09:30	06/21/24 14:15		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis								
Dissolved Organic Carbon	**2.6**	mg/L	1.0	0.25	1		06/20/24 18:32		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4 May 2024
Pace Project No.: 50375751

QC Batch: 795800
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375751001

METHOD BLANK: 3641300 Matrix: Water
Associated Lab Samples: 50375751001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	06/14/24 13:51	
Fluoride	mg/L	ND	0.10	0.017	06/14/24 13:51	
Sulfate	mg/L	ND	0.25	0.19	06/14/24 13:51	

LABORATORY CONTROL SAMPLE: 3641301

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.5	99	80-120	
Fluoride	mg/L	1	1.1	105	80-120	
Sulfate	mg/L	5	5.2	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3641308 3641309

Parameter	Units	50375728001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	18.2	2.5	2.5	20.5	20.7	92	97	80-120	1	15	
Fluoride	mg/L	0.38	1	1	1.3	1.3	91	92	80-120	1	15	
Sulfate	mg/L	21.0	5	5	22.7	22.9	32	37	80-120	1	15	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4 May 2024
Pace Project No.: 50375751

QC Batch: 796823
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375751001

METHOD BLANK: 3645710 Matrix: Water
Associated Lab Samples: 50375751001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	06/21/24 09:22	

LABORATORY CONTROL SAMPLE: 3645711

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3645712 3645713

Parameter	Units	50375848002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.8	5.1	96	102	75-125	5	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4 May 2024
Pace Project No.: 50375751

QC Batch: 796405
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375751001

METHOD BLANK: 3643967 Matrix: Water
Associated Lab Samples: 50375751001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	100	11.4	06/25/24 12:47	
Cadmium	ug/L	ND	2.0	0.74	06/25/24 12:47	
Calcium	ug/L	ND	1000	56.7	06/25/24 12:47	
Chromium	ug/L	ND	10.0	1.4	06/25/24 12:47	
Iron	ug/L	ND	100	18.1	06/25/24 12:47	
Lead	ug/L	ND	10.0	4.0	06/25/24 12:47	
Lithium	ug/L	ND	20.0	5.1	06/25/24 12:47	
Magnesium	ug/L	ND	1000	32.8	06/25/24 12:47	
Molybdenum	ug/L	ND	10.0	1.1	06/25/24 12:47	
Potassium	ug/L	ND	1000	120	06/25/24 12:47	
Sodium	ug/L	ND	1000	48.2	06/25/24 12:47	

LABORATORY CONTROL SAMPLE: 3643968

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	1000	965	96	80-120	
Cadmium	ug/L	1000	973	97	80-120	
Calcium	ug/L	10000	10100	101	80-120	
Chromium	ug/L	1000	986	99	80-120	
Iron	ug/L	10000	9660	97	80-120	
Lead	ug/L	1000	955	95	80-120	
Lithium	ug/L	1000	1020	102	80-120	
Magnesium	ug/L	10000	9720	97	80-120	
Molybdenum	ug/L	1000	1010	101	80-120	
Potassium	ug/L	10000	10000	100	80-120	
Sodium	ug/L	10000	9860	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3643969 3643970

Parameter	Units	50375617001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	<100	1000	1000	1010	1010	97	97	75-125	0	20	
Cadmium	ug/L	<2.0	1000	1000	970	960	97	96	75-125	1	20	
Calcium	ug/L	20200	10000	10000	30700	30400	106	102	75-125	1	20	
Chromium	ug/L	<5.0	1000	1000	982	973	98	97	75-125	1	20	
Iron	ug/L	4980	10000	10000	14700	14700	98	97	75-125	0	20	
Lead	ug/L	<10.0	1000	1000	936	933	93	93	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4 May 2024
Pace Project No.: 50375751

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3643969 3643970

Parameter	Units	50375617001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	<20.0	1000	1000	1020	1020	101	101	75-125	0	20	
Magnesium	ug/L	5680	10000	10000	15300	15300	96	96	75-125	0	20	
Molybdenum	ug/L	<10.0	1000	1000	1010	1000	101	100	75-125	1	20	
Potassium	ug/L	503	10000	10000	10400	10300	99	98	75-125	0	20	
Sodium	ug/L	21800	10000	10000	31500	31200	97	94	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4 May 2024
Pace Project No.: 50375751

QC Batch: 796444
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375751001

METHOD BLANK: 3644293 Matrix: Water
Associated Lab Samples: 50375751001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	6.2	06/21/24 00:57	
Lithium, Dissolved	ug/L	ND	20.0	6.8	06/21/24 00:57	
Magnesium, Dissolved	ug/L	ND	1000	33.6	06/21/24 00:57	
Molybdenum, Dissolved	ug/L	ND	10.0	0.78	06/21/24 00:57	
Potassium, Dissolved	ug/L	ND	1000	97.8	06/21/24 00:57	

LABORATORY CONTROL SAMPLE: 3644294

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	869	87	80-120	
Lithium, Dissolved	ug/L	1000	896	90	80-120	
Magnesium, Dissolved	ug/L	10000	8850	89	80-120	
Molybdenum, Dissolved	ug/L	1000	898	90	80-120	
Potassium, Dissolved	ug/L	10000	8830	88	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3644295 3644296

Parameter	Units	50375588013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	ND	1000	1000	1100	1060	100	95	75-125	4	20	
Lithium, Dissolved	ug/L	ND	1000	1000	996	982	98	97	75-125	1	20	
Magnesium, Dissolved	ug/L	42500	10000	10000	52500	49200	100	67	75-125	6	20	P6
Molybdenum, Dissolved	ug/L	ND	1000	1000	1000	965	100	96	75-125	4	20	
Potassium, Dissolved	ug/L	2170	10000	10000	11800	11700	97	95	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4 May 2024
Pace Project No.: 50375751

QC Batch: 795746
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50375751001

METHOD BLANK: 3641082 Matrix: Water
Associated Lab Samples: 50375751001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	1.0	0.27	06/18/24 01:01	
Arsenic	ug/L	ND	1.0	0.11	06/18/24 01:01	
Barium	ug/L	ND	1.0	0.090	06/18/24 01:01	
Beryllium	ug/L	ND	0.20	0.030	06/18/24 01:01	
Cobalt	ug/L	ND	1.0	0.16	06/18/24 01:01	
Manganese	ug/L	ND	1.0	0.26	06/18/24 01:01	
Selenium	ug/L	ND	1.0	0.22	06/18/24 01:01	
Thallium	ug/L	ND	1.0	0.043	06/18/24 01:01	

LABORATORY CONTROL SAMPLE: 3641083

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	41.0	103	80-120	
Arsenic	ug/L	40	38.6	97	80-120	
Barium	ug/L	40	38.9	97	80-120	
Beryllium	ug/L	40	40.6	102	80-120	
Cobalt	ug/L	40	41.2	103	80-120	
Manganese	ug/L	40	40.9	102	80-120	
Selenium	ug/L	40	39.3	98	80-120	
Thallium	ug/L	40	40.7	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3641084 3641085

Parameter	Units	50375636003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	<0.0010 mg/L	40	40	40.8	41.4	102	103	75-125	1	20	
Arsenic	ug/L	<0.0010 mg/L	40	40	38.0	38.5	94	95	75-125	1	20	
Barium	ug/L	0.029 mg/L	40	40	67.8	69.2	96	100	75-125	2	20	
Beryllium	ug/L	<0.00020 mg/L	40	40	38.2	39.1	96	98	75-125	2	20	
Cobalt	ug/L	<0.0010 mg/L	40	40	38.3	39.4	95	97	75-125	3	20	
Manganese	ug/L	0.011 mg/L	40	40	48.9	50.5	94	98	75-125	3	20	
Selenium	ug/L	<0.0010 mg/L	40	40	38.4	39.2	94	97	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4 May 2024
Pace Project No.: 50375751

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3641084 3641085

Parameter	Units	50375636003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Thallium	ug/L	<0.0010 mg/L	40	40	40.7	42.2	102	105	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4 May 2024
Pace Project No.: 50375751

QC Batch: 795894
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375751001

METHOD BLANK: 3641852 Matrix: Water
Associated Lab Samples: 50375751001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	10.0	4.4	06/18/24 14:02	

LABORATORY CONTROL SAMPLE: 3641853

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	400	408	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3641854 3641855

Parameter	Units	50375277002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum, Dissolved	ug/L	ND	400	400	391	394	97	98	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4 May 2024
Pace Project No.: 50375751

QC Batch: 796148
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375751001

METHOD BLANK: 3643110 Matrix: Water
Associated Lab Samples: 50375751001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	10.0	06/17/24 21:28	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	10.0	10.0	06/17/24 21:28	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	10.0	10.0	06/17/24 21:28	

LABORATORY CONTROL SAMPLE: 3643111

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	54.3	109	90-110	

SAMPLE DUPLICATE: 3643112

Parameter	Units	50375635009 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	332	336	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	332	336	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 3643113

Parameter	Units	50375751001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	150	152	1	20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	150	152	1	20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4 May 2024
Pace Project No.: 50375751

QC Batch: 796212
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375751001

METHOD BLANK: 3643298 Matrix: Water
Associated Lab Samples: 50375751001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	06/18/24 11:11	

LABORATORY CONTROL SAMPLE: 3643299

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	274	91	80-120	

SAMPLE DUPLICATE: 3643300

Parameter	Units	50375815014 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	348	364	4	10	

SAMPLE DUPLICATE: 3643301

Parameter	Units	50375807003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2040	2060	1	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4 May 2024
Pace Project No.: 50375751

QC Batch: 796290
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50375751001

SAMPLE DUPLICATE: 3643533

Parameter	Units	50375622005 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.0	6.9	1	2	H3

SAMPLE DUPLICATE: 3643534

Parameter	Units	50375030011 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.5	7.4	1	2	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4 May 2024
Pace Project No.: 50375751

QC Batch: 795957
QC Batch Method: SM 4500-S2-D
Analysis Method: SM 4500-S2-D
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375751001

METHOD BLANK: 3642522 Matrix: Water
Associated Lab Samples: 50375751001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.025	06/15/24 15:24	

LABORATORY CONTROL SAMPLE: 3642523

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3642524 3642525

Parameter	Units	50375920001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.57	0.55	111	108	90-110	3	20	H3,M0

MATRIX SPIKE SAMPLE: 3642526

Parameter	Units	50375920002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	0.5	0.55	108	90-110	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4 May 2024
Pace Project No.: 50375751

QC Batch: 795676
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375751001

METHOD BLANK: 3640824 Matrix: Water
Associated Lab Samples: 50375751001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.013	06/13/24 22:37	

LABORATORY CONTROL SAMPLE: 3640825

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3640826 3640827

Parameter	Units	50375752003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	5.5	5	5	10.4	10.4	99	98	90-110	0	20	

MATRIX SPIKE SAMPLE: 3640828

Parameter	Units	50375752004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.1	104	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4 May 2024
Pace Project No.: 50375751

QC Batch: 796975
QC Batch Method: EPA 365.1
Analysis Method: EPA 365.1
Analysis Description: 365.1 Total Phosphorus
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375751001

METHOD BLANK: 3646523 Matrix: Water
Associated Lab Samples: 50375751001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	ND	0.15	0.13	06/21/24 14:45	

LABORATORY CONTROL SAMPLE: 3646524

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L		1.5			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3646525 3646526

Parameter	Units	50375815010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	0.59			1.7	1.9				13		

MATRIX SPIKE SAMPLE: 3646527

Parameter	Units	50375815011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	0.32		1.6			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg P4 May 2024
Pace Project No.: 50375751

QC Batch: 796752
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375751001

METHOD BLANK: 3645309 Matrix: Water
Associated Lab Samples: 50375751001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.25	06/20/24 13:07	

LABORATORY CONTROL SAMPLE: 3645310

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3645311 3645312

Parameter	Units	50375567002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	11.1	80	80	89.9	92.2	98	101	80-120	3	20	

MATRIX SPIKE SAMPLE: 3645313

Parameter	Units	50375622004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	2.2	10	12.2	100	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Petersburg P4 May 2024
Pace Project No.: 50375751

Sample: MW-28I **Lab ID: 50375751001** Collected: 06/12/24 12:53 Received: 06/13/24 09:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.784 ± 0.725 (1.15) C:NA T:94%**	pCi/L	07/05/24 14:02	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.07 ± 0.419 (0.597) C:79% T:87%**	pCi/L	07/02/24 14:36	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.85 ± 1.14 (1.75)**	pCi/L	07/08/24 09:32	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4 May 2024
Pace Project No.: 50375751

QC Batch: 676464
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50375751001

METHOD BLANK: 3293917 Matrix: Water
Associated Lab Samples: 50375751001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.124 ± 0.215 (0.385) C:NA T:90%	pCi/L	07/05/24 14:02	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Petersburg P4 May 2024
Pace Project No.: 50375751

QC Batch: 676465
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50375751001

METHOD BLANK: 3293918 Matrix: Water
Associated Lab Samples: 50375751001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0910 ± 0.338 (0.767) C:79% T:88%	pCi/L	07/02/24 14:35	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg P4 May 2024
Pace Project No.: 50375751

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg P4 May 2024
Pace Project No.: 50375751

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50375751001	**MW-28I**	EPA 9056	795800		
50375751001	**MW-28I**	EPA 3010	796405	EPA 6010	797493
50375751001	**MW-28I**	EPA 3010	796444	EPA 6010	796950
50375751001	**MW-28I**	EPA 200.2	795746	EPA 6020	795940
50375751001	**MW-28I**	EPA 200.2	795894	EPA 6020	795966
50375751001	**MW-28I**	EPA 7470	796823	EPA 7470	796964
50375751001	**MW-28I**	EPA 903.1	676464		
50375751001	**MW-28I**	EPA 904.0	676465		
50375751001	**MW-28I**	Total Radium Calculation	680727		
50375751001	**MW-28I**	SM 2320B	796148		
50375751001	**MW-28I**	SM 2540C	796212		
50375751001	**MW-28I**	SM 4500-H+B	796290		
50375751001	**MW-28I**	SM 4500-S2-D	795957		
50375751001	**MW-28I**	EPA 353.2	795676		
50375751001	**MW-28I**	EPA 365.1	796975	EPA 365.1	797142
50375751001	**MW-28I**	SM 5310C	796752		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTO

The Chain-of-Custody is a l … ately.

WO# : 50375751

50375751

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg P4 May 2024	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:		Pace Profile #:	10498/60

Regulatory Agency
State / Location
IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Y/N	Analyses Test: TDS/ NO3 Wet	(Cl, F, SO4) IC	Metals, Total*	Metals Diss. Field Filtered**	Alkalinity,pH	DOC by 5310C	Sulfide	Phosphate	Rad-226/228 + Sum			Residual Chlorine (Y/N)	
	MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																					Y			Y						
1	MW-28I	WT	G			6-12	1253		10	X	X	X		X					X	X	X	X	X	X	X	X	X				
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Metals: 6010 (B, Cd, Cr, Fe, Pb, Mo, Ca, Mg, Na, K, Li) (11)	Hayley Ramirez ATLAS	6-12-24	1500	Fedex	6-12-24	1500				
6020 (Be, Mn, Co, As, Se, Sb, Ba, Tl) (8), 7470 (Hg)	Fedex	6/13/24	0935		6/13/24	0935	1.1	Y	Y	Y
* Dissolved FF 6010 (B, Mo, Mg, K, Li) (5) FF 6020 (Al) (1)										
Rad 226/2228 to Pace PA										

SAMPLER NAME AND SIGNATURE					
PRINT Name of SAMPLER:	Mykah Bertran		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
SIGNATURE of SAMPLER:		DATE Signed: 6-12-24				

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: LR 6/13/24 1030

1. **Courier:** ☒ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No
   (If yes)Seals Intact: ☒ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D (E) F G H
4. **Cooler Temperature(s):** 1.1 / 1.1 | | | |
   (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other _____
6. **Ice Type:** ☒ Wet ☐ Blue ☐ None
7. **Was the PM notified of out of temp cooler?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C
8. **EZ Bottle Order?** ☐ Yes ☒ No
   If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)	~~X~~	X	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.**	X		
Short Hold Time Analysis (48 hours or less)? **Analysis:** NO_3	X		**Circle:** HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form			
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 1120			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
Containers Intact?:	X		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent X
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE __1__ of __1__

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1													1			2	1	2	1	1	1		1					W	✓	✓		✓
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

August 2024 (Verification Resampling)

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

August 22, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 P1R1
Pace Project No.: 50380227

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on August 14, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 P1R1
Pace Project No.: 50380227

Pace Analytical Services Indianapolis
7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 P1R1
Pace Project No.: 50380227

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50380227001	**MW-2R**	Water	08/13/24 12:15	08/14/24 15:06
50380227002	**MW-3**	Water	08/13/24 10:42	08/14/24 15:06
50380227003	**MW-13**	Water	08/14/24 10:30	08/14/24 15:06

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P1R1
Pace Project No.: 50380227

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50380227001	**MW-2R**	EPA 6020	MTM	1	PASI-I
50380227002	**MW-3**	EPA 6020	MTM	1	PASI-I
50380227003	**MW-13**	EPA 6020	MTM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P1R1
Pace Project No.: 50380227

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50380227001	**MW-2R**					
EPA 6020	Barium	84.9	ug/L	1.0	08/18/24 02:51	
50380227002	**MW-3**					
EPA 6020	Barium	35.8	ug/L	1.0	08/18/24 02:55	
50380227003	**MW-13**					
EPA 6020	Selenium	25.5	ug/L	1.0	08/18/24 02:59	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P1R1
Pace Project No.: 50380227

Sample: MW-2R **Lab ID: 50380227001** Collected: 08/13/24 12:15 Received: 08/14/24 15:06 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Barium	**84.9**	ug/L	1.0	0.11	1	08/17/24 00:40	08/18/24 02:51	7440-39-3	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P1R1
Pace Project No.: 50380227

Sample: MW-3 **Lab ID: 50380227002** Collected: 08/13/24 10:42 Received: 08/14/24 15:06 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Barium	**35.8**	ug/L	1.0	0.11	1	08/17/24 00:40	08/18/24 02:55	7440-39-3	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P1R1
Pace Project No.: 50380227

Sample: MW-13 **Lab ID: 50380227003** Collected: 08/14/24 10:30 Received: 08/14/24 15:06 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Selenium	**25.5**	ug/L	1.0	0.26	1	08/17/24 00:40	08/18/24 02:59	7782-49-2	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P1R1
Pace Project No.: 50380227

QC Batch: 804776
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50380227001, 50380227002, 50380227003

METHOD BLANK: 3681054 Matrix: Water
Associated Lab Samples: 50380227001, 50380227002, 50380227003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Barium	ug/L	ND	1.0	0.11	08/18/24 02:35	
Selenium	ug/L	ND	1.0	0.26	08/18/24 02:35	

LABORATORY CONTROL SAMPLE: 3681055

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	40	39.0	97	80-120	
Selenium	ug/L	40	39.6	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3681056 3681057

Parameter	Units	50380250002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	ug/L	44.8	40	40	82.2	84.6	93	100	75-125	3	20	
Selenium	ug/L	ND	40	40	40.8	40.6	101	101	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 P1R1
Pace Project No.: 50380227

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P1R1
Pace Project No.: 50380227

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50380227001	**MW-2R**	EPA 200.2	804776	EPA 6020	804990
50380227002	**MW-3**	EPA 200.2	804776	EPA 6020	804990
50380227003	**MW-13**	EPA 200.2	804776	EPA 6020	804990

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / A

The Chain-of-Custody is a LEGAL DO

WO# : 50380227

50380227

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg May 2024 P1R1	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:		Pace Profile #:	10498/58

Regulatory Agency	State / Location
	IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	Metals by 6010/6020/7470	Cl, F, SO4 by 9056	TDS by 2540C	Rad-226/228 + Sum	Total Barium (6020)	Total Selenium (6020)	Residual Chlorine (Y/N)	
1	MW-2R	WT	G			8/13/24	1215		1			1											X			001
2	MW-3	WT	G			8/13/24	1042		1			1											X			002
3	MW-13	WT	G			8/14/24	1030		1			1												X		003
4																										
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Metals* 6010: B, Cd, Cr, Fe, Pb, Mn, Mo, Ca, Li (9)	JON HILL/ATLAS	8/14/24			8.19	15:06	1.2	Y	N	Y
6020: Be, Co, Cu, Zn, As, Se, Sb, Ba, Tl (9) 7470 Hg										
Rad to Pace PA										

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	JON HILL					
SIGNATURE of SAMPLER:	Mark Breting for/ JON HILL	DATE Signed: 8/14/24				

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: CW 8.14.24 15:06

1. Courier: ☐ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☑ OTHER Walk-in

2. Custody Seal on Cooler/Box Present: ☐ Yes ☒ No

(If yes) Seals Intact: ☐ Yes ☐ No (leave blank if no seals were present)

3. Thermometer: 1 2 3 4 5 6 7 8 9 A B C D E F (G) H I

4. Cooler Temperature(s): 1.4/1.2 | | | |

(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

6. Ice Type: ☑ Wet ☐ Blue ☐ None

7. Was the PM notified of out of temp cooler?: ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: (HNO3 (<2)) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	X		
Short Hold Time Analysis (48 hours or less)? Analysis:		X				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
Containers Intact?:	X		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent X
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a PINK dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit			Matrix
1																													WT
2																													
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
Red	Yellow	Green	Black
HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
✓			
✓			
✓			

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	CG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	CG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3B	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

NT3U	Non Teflon 250mL unpreserved plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

August 2024 (Surface Water Sampling)

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

September 11, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg Surface Water
Pace Project No.: 50380603

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on August 19, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis

This revised report replaces the version sent on 9/3/24. The project name was changed to Petersburg Surface Water.
WHS 9/11/24

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg Surface Water
Pace Project No.: 50380603

Pace Analytical Services Indianapolis
7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg Surface Water
Pace Project No.: 50380603

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50380603001	**SB-1**	Water	08/19/24 09:15	08/19/24 13:15
50380603002	**SC-1**	Water	08/19/24 09:27	08/19/24 13:15
50380603003	**SB-2**	Water	08/19/24 09:42	08/19/24 13:15
50380603004	**SC-2**	Water	08/19/24 09:55	08/19/24 13:15
50380603005	**SB-3**	Water	08/19/24 10:05	08/19/24 13:15
50380603006	**SC-3**	Water	08/19/24 10:10	08/19/24 13:15
50380603007	**Dup-1**	Water	08/19/24 08:00	08/19/24 13:15
50380603008	**EQ. Blank**	Water	08/19/24 09:12	08/19/24 13:15

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg Surface Water
Pace Project No.: 50380603

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50380603001	**SB-1**	EPA 200.7	ELK	1	PASI-I
		EPA 200.8	MTM	1	PASI-I
50380603002	**SC-1**	EPA 200.7	ELK	1	PASI-I
		EPA 200.8	MTM	1	PASI-I
50380603003	**SB-2**	EPA 200.7	ELK	1	PASI-I
		EPA 200.8	MTM	1	PASI-I
50380603004	**SC-2**	EPA 200.7	ELK	1	PASI-I
		EPA 200.8	MTM	1	PASI-I
50380603005	**SB-3**	EPA 200.7	ELK	1	PASI-I
		EPA 200.8	MTM	1	PASI-I
50380603006	**SC-3**	EPA 200.7	ELK	1	PASI-I
		EPA 200.8	MTM	1	PASI-I
50380603007	**Dup-1**	EPA 200.7	ELK	1	PASI-I
		EPA 200.8	MTM	1	PASI-I
50380603008	**EQ. Blank**	EPA 200.7	ELK	1	PASI-I
		EPA 200.8	MTM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg Surface Water
Pace Project No.: 50380603

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50380603001	**SB-1**					
EPA 200.8	Boron	54.9	ug/L	5.0	08/22/24 02:03	
50380603002	**SC-1**					
EPA 200.8	Boron	52.2	ug/L	5.0	08/22/24 02:31	
50380603003	**SB-2**					
EPA 200.8	Boron	96.6	ug/L	5.0	08/22/24 02:35	
50380603004	**SC-2**					
EPA 200.8	Boron	96.3	ug/L	5.0	08/22/24 02:39	
50380603005	**SB-3**					
EPA 200.8	Boron	2470	ug/L	250	08/22/24 02:43	
50380603006	**SC-3**					
EPA 200.8	Boron	62.2	ug/L	5.0	08/22/24 02:47	
50380603007	**Dup-1**					
EPA 200.8	Boron	62.5	ug/L	5.0	08/22/24 02:59	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg Surface Water
Pace Project No.: 50380603

Sample: SB-1 **Lab ID: 50380603001** Collected: 08/19/24 09:15 Received: 08/19/24 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Indianapolis								
Molybdenum	ND	ug/L	10.0	1.4	1	08/20/24 21:16	08/21/24 12:00	7439-98-7	
200.8 Metals, Total ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Indianapolis								
Boron	**54.9**	ug/L	5.0	2.8	1	08/21/24 07:30	08/22/24 02:03	7440-42-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg Surface Water
Pace Project No.: 50380603

Sample: SC-1 **Lab ID: 50380603002** Collected: 08/19/24 09:27 Received: 08/19/24 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Indianapolis								
Molybdenum	ND	ug/L	10.0	1.4	1	08/20/24 21:16	08/21/24 12:10	7439-98-7	
200.8 Metals, Total ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Indianapolis								
Boron	**52.2**	ug/L	5.0	2.8	1	08/21/24 07:30	08/22/24 02:31	7440-42-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg Surface Water
Pace Project No.: 50380603

Sample: SB-2 **Lab ID: 50380603003** Collected: 08/19/24 09:42 Received: 08/19/24 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Indianapolis								
Molybdenum	ND	ug/L	10.0	1.4	1	08/20/24 21:16	08/21/24 12:17	7439-98-7	
200.8 Metals, Total ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Indianapolis								
Boron	**96.6**	ug/L	5.0	2.8	1	08/21/24 07:30	08/22/24 02:35	7440-42-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg Surface Water
Pace Project No.: 50380603

Sample: SC-2 **Lab ID: 50380603004** Collected: 08/19/24 09:55 Received: 08/19/24 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Indianapolis								
Molybdenum	ND	ug/L	10.0	1.4	1	08/20/24 21:16	08/21/24 12:19	7439-98-7	
200.8 Metals, Total ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Indianapolis								
Boron	**96.3**	ug/L	5.0	2.8	1	08/21/24 07:30	08/22/24 02:39	7440-42-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg Surface Water
Pace Project No.: 50380603

Sample: SB-3 **Lab ID: 50380603005** Collected: 08/19/24 10:05 Received: 08/19/24 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Indianapolis								
Molybdenum	ND	ug/L	10.0	1.4	1	08/20/24 21:16	08/21/24 12:23	7439-98-7	
200.8 Metals, Total ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Indianapolis								
Boron	**2470**	ug/L	250	140	50	08/21/24 07:30	08/22/24 02:43	7440-42-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg Surface Water
Pace Project No.: 50380603

Sample: SC-3 **Lab ID: 50380603006** Collected: 08/19/24 10:10 Received: 08/19/24 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Indianapolis								
Molybdenum	ND	ug/L	10.0	1.4	1	08/20/24 21:16	08/21/24 12:25	7439-98-7	
200.8 Metals, Total ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Indianapolis								
Boron	**62.2**	ug/L	5.0	2.8	1	08/21/24 07:30	08/22/24 02:47	7440-42-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg Surface Water
Pace Project No.: 50380603

Sample: Dup-1 **Lab ID: 50380603007** Collected: 08/19/24 08:00 Received: 08/19/24 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Indianapolis								
Molybdenum	ND	ug/L	10.0	1.4	1	08/20/24 21:16	08/21/24 12:27	7439-98-7	
200.8 Metals, Total ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Indianapolis								
Boron	**62.5**	ug/L	5.0	2.8	1	08/21/24 07:30	08/22/24 02:59	7440-42-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg Surface Water
Pace Project No.: 50380603

Sample: EQ. Blank **Lab ID: 50380603008** Collected: 08/19/24 09:12 Received: 08/19/24 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Indianapolis								
Molybdenum	ND	ug/L	10.0	1.4	1	08/20/24 21:16	08/21/24 12:30	7439-98-7	
200.8 Metals, Total ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Indianapolis								
Boron	ND	ug/L	5.0	2.8	1	08/21/24 07:30	08/22/24 03:03	7440-42-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg Surface Water
Pace Project No.: 50380603

QC Batch: 805161 | Analysis Method: EPA 200.7
QC Batch Method: EPA 200.7 | Analysis Description: 200.7 Metals, Total
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50380603001, 50380603002, 50380603003, 50380603004, 50380603005, 50380603006, 50380603007, 50380603008

METHOD BLANK: 3682918 Matrix: Water
Associated Lab Samples: 50380603001, 50380603002, 50380603003, 50380603004, 50380603005, 50380603006, 50380603007, 50380603008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Molybdenum	ug/L	ND	10.0	1.4	08/21/24 11:54	

LABORATORY CONTROL SAMPLE: 3682919

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Molybdenum	ug/L	1000	986	99	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3682920 3682921

Parameter	Units	50380603001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Molybdenum	ug/L	ND	1000	1000	961	989	96	99	70-130	3	20	

MATRIX SPIKE SAMPLE: 3682922

Parameter	Units	50380603004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Molybdenum	ug/L	ND	1000	976	97	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg Surface Water
Pace Project No.: 50380603

QC Batch: 805199
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50380603001, 50380603002, 50380603003, 50380603004, 50380603005, 50380603006, 50380603007, 50380603008

METHOD BLANK: 3683011 Matrix: Water
Associated Lab Samples: 50380603001, 50380603002, 50380603003, 50380603004, 50380603005, 50380603006, 50380603007, 50380603008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	ug/L	ND	5.0	2.8	08/22/24 01:47	

LABORATORY CONTROL SAMPLE: 3683012

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	40	41.4	103	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3683013 3683014

Parameter	Units	50380603001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	54.9	40	40	97.1	99.1	106	110	70-130	2	20	

MATRIX SPIKE SAMPLE: 3683015

Parameter	Units	50380360004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	0.019 mg/L	40	58.2	98	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg Surface Water
Pace Project No.: 50380603

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg Surface Water
Pace Project No.: 50380603

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50380603001	**SB-1**	EPA 200.7	805161	EPA 200.7	805495
50380603002	**SC-1**	EPA 200.7	805161	EPA 200.7	805495
50380603003	**SB-2**	EPA 200.7	805161	EPA 200.7	805495
50380603004	**SC-2**	EPA 200.7	805161	EPA 200.7	805495
50380603005	**SB-3**	EPA 200.7	805161	EPA 200.7	805495
50380603006	**SC-3**	EPA 200.7	805161	EPA 200.7	805495
50380603007	**Dup-1**	EPA 200.7	805161	EPA 200.7	805495
50380603008	**EQ. Blank**	EPA 200.7	805161	EPA 200.7	805495
50380603001	**SB-1**	EPA 200.8	805199	EPA 200.8	805600
50380603002	**SC-1**	EPA 200.8	805199	EPA 200.8	805600
50380603003	**SB-2**	EPA 200.8	805199	EPA 200.8	805600
50380603004	**SC-2**	EPA 200.8	805199	EPA 200.8	805600
50380603005	**SB-3**	EPA 200.8	805199	EPA 200.8	805600
50380603006	**SC-3**	EPA 200.8	805199	EPA 200.8	805600
50380603007	**Dup-1**	EPA 200.8	805199	EPA 200.8	805600
50380603008	**EQ. Blank**	EPA 200.8	805199	EPA 200.8	805600

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace® Location Requested (City/State):
Pace Analytical Indianapolis
7726 Moller Road, Indianapolis, IN 46268

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

WO# : 50380603

50380603

Company Name:	Atlas Indianapolis	Contact/Report To:	Mark Breting
Street Address:	7988 Centerpoint Drive Suite 100 Indianapolis, IN 46256	Phone #:	579-4082
		E-Mail:	mark.breting@atcgs.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	Petersburg Stormwater	Invoice To:	Accounts Payable
		Invoice E-Mail:	paula.sedam@atcgs.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	
		Quote #:	
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET		County / State origin of sample(s):	Indiana
Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other	Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No		
	Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____	DW PWSID # or WW Permit # as applicable:	
	Date Results Requested:	Field Filtered (if applicable): [ ] Yes [ ] No Analysis:	

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Identify Container Preservative Type***

Analysis Requested

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

.e: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

Lab Use Only:
Proj. Mgr: **Will Statz**
AcctNum / Client ID:
Table #:
Profile / Template: **10498-61**
Prelog / Bottle Ord. ID: **EZ 3148694**

Preservation non-conformance identified for sample.

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	200.8 Boron	200.7 Molybdenum	Sample Comment
SB-1	WT	G			8.19.23	915	1					001
SC-1						927						002
SB-2						942						003
SC-2						955						004
SB-3						1005						005
SC-3						1010						006
Dup-1						—						007
MS						915						SB-1
MSD						915						SB-1
EQ. Blank						912						008

Additional Instructions from Pace®:

Collected By: (Printed Name) Jon Hill

Signature: J Hill

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
1	C	0	5.6	5.6	Y

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
J Hill / ATCS	8.19.24 / 1315	PACE	8/19/24 1315
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

Tracking Number:

Delivered by: [/] In-Person [ ] Courier [ ] FedEx [ ] UPS [ ] Other

Page: 1 of 1

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

ENV-FRM-CORQ-0019_v02_110123 ©

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: TW 8/19/24 1440

1. **Courier:** ☐FED EX ☐UPS ☑CLIENT ☐PACE ☐NOW/JETT ☐OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☐ Yes ☑ No
   (If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 9 A B C D E F G H I
4. **Cooler Temperature(s):** 5.6/5.6 | | | |
   (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☐Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **Was the PM notified of out of temp cooler?:** ☐Yes ☐No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** Circle: **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:	✓		Present	Absent	N/A
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Custody Signatures Present?	✓		Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Containers Intact?:	✓		Headspace Wisconsin Sulfide?			✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Extra labels on Terracore Vials? (soils only)			Trip Blank Present?		✓	
			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a PINK dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC									OTHER								
			MeOH (only)																													
			SBS																													
			DI																													
COC Line Item	WGFU	WGKU BG1U	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit			Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																			3										WT	✓			
2																			1														
3																																	
4																																	
5																																	
6																																	
7																														✓			
8																																	
9																																	
10																			1											✓			
11																																	
12																																	

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	CG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	CG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3B	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

NT3U	Non Teflon 250mL unpreserved plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

September 2024

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

September 23, 2024

Mr. Mark Breting
ATC Group Services
7988 Centerpoint Drive
Suite 100
Indianapolis, IN 46256

RE: Project: Petersburg May 2024 P1R1
Pace Project No.: 50382809

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on September 18, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

cc: Mohammed Bazlamit, Atlas
Mr. Robert Miller, Haley & Aldrich

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Petersburg May 2024 P1R1
Pace Project No.: 50382809

Pace Analytical Services Indianapolis
7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Petersburg May 2024 P1R1
Pace Project No.: 50382809

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50382809001	**MW-2R**	Water	09/17/24 10:50	09/18/24 15:45
50382809002	**MW-13**	Water	09/17/24 11:25	09/18/24 15:45

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Petersburg May 2024 P1R1
Pace Project No.: 50382809

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50382809001	**MW-2R**	EPA 6020	DMT	1	PASI-I
50382809002	**MW-13**	EPA 6020	DMT	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Petersburg May 2024 P1R1
Pace Project No.: 50382809

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50382809001	**MW-2R**					
EPA 6020	Barium	45.3	ug/L	1.0	09/23/24 03:05	
50382809002	**MW-13**					
EPA 6020	Selenium	15.7	ug/L	1.0	09/23/24 03:09	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P1R1
Pace Project No.: 50382809

Sample: MW-2R **Lab ID: 50382809001** Collected: 09/17/24 10:50 Received: 09/18/24 15:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Barium	**45.3**	ug/L	1.0	0.11	1	09/20/24 15:30	09/23/24 03:05	7440-39-3	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Petersburg May 2024 P1R1
Pace Project No.: 50382809

Sample: MW-13 **Lab ID: 50382809002** Collected: 09/17/24 11:25 Received: 09/18/24 15:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis								
Selenium	**15.7**	ug/L	1.0	0.26	1	09/20/24 15:30	09/23/24 03:09	7782-49-2	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Petersburg May 2024 P1R1
Pace Project No.: 50382809

QC Batch: 809757
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50382809001, 50382809002

METHOD BLANK: 3704066 Matrix: Water
Associated Lab Samples: 50382809001, 50382809002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Barium	ug/L	ND	1.0	0.11	09/23/24 02:58	
Selenium	ug/L	ND	1.0	0.26	09/23/24 02:58	

LABORATORY CONTROL SAMPLE: 3704067

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	40	38.8	97	80-120	
Selenium	ug/L	40	39.6	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3704068 3704069

Parameter	Units	50382809002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	ug/L	22.4	40	40	60.8	61.5	96	98	75-125	1	20	
Selenium	ug/L	15.7	40	40	59.5	60.2	109	111	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Petersburg May 2024 P1R1
Pace Project No.: 50382809

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Petersburg May 2024 P1R1
Pace Project No.: 50382809

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50382809001	**MW-2R**	EPA 200.2	809757	EPA 6020	810189
50382809002	**MW-13**	EPA 200.2	809757	EPA 6020	810189

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request Do

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must

WO# : 50382809

50382809

Section A – Required Client Information:		Section B – Required Project Information:		Section C – Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Mark Breting	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive Suite 100	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	mark.breting@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	(317)579-4082 Fax:	Project Name:	Petersburg May 2024 P1R1	Pace Project Manager:	Will Statz
Requested Due Date:		Project #:		Pace Profile #:	10498/58

Regulatory Agency	
State / Location	IN

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + ZnAcetate	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analyses Test: Metals by 6010/6020/7470	Cl, F, SO4 by 9056	TDS by 2540C	Rad-226/228 + Sum	Total Barium (6020)	Total Selenium (6020)	Residual Chlorine (Y/N)
1	mw-2R					9.17.24	1050		1			1										X			
2	mw-13					↓	1125		1			1										X			
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Metals* 6010: B, Cd, Cr, Fe, Pb, Mn, Mo, Ca, Li (9)		9.18.24	0800		9/18/24	1450				
6020: Be, Co, Cu, Zn, As, Se, Sb, Ba, Tl (9) 7470 Hg		9/18/24	1545		9/18/24	1545	2.4	4	4	4
Rad to Pace PA										

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Jon Hill					
SIGNATURE of SAMPLER:		DATE Signed: 9.17.24				

F-IN-Q-290-rev.28, 29Jul2024

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 9/18/24

1. **Courier:** ☐ FED EX ☐ UPS ☐ CLIENT ☒ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No
   (If yes)Seals Intact: ☒ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 9 A B C D E F G H I
4. **Cooler Temperature(s):** 2.4 / 2.4 | | | |
   (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☒ Wet ☐ Blue ☐ None
7. **Was the PM notified of out of temp cooler?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.**	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓	**Circle:** **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a PINK dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC									OTHER							
COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U DG9U	VG9T		AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit			Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																				\										WT	✓			
2																				\										WT	✓			
3																																		
4																																		
5																																		
6																																		
7																																		
8																																		
9																																		
10																																		
11																																		
12																																		

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	CG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	CG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3B	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

NT3U	Non Teflon 250mL unpreserved plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Appendix C: Statistical Analyses – Prediction Limits Documentation

November 2023

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Antimony, Total (Federal)	ug/L	MW-2R	09/28/2016	ND	0.0500	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	10/19/2016	ND	50.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	11/09/2016	ND	50.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	12/12/2016	ND	5.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	03/16/2017	ND	6.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	03/17/2017	ND	6.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	03/24/2017	ND	24.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	04/20/2017	ND	6.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	04/24/2017	ND	6.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	05/16/2017	ND	6.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	06/20/2017	ND	6.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	08/08/2017	ND	6.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	05/09/2018	ND	5.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	09/12/2018	ND	1.4000		
Antimony, Total (Federal)	ug/L	MW-2R	05/16/2019	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	11/06/2019	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	05/13/2020	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	11/03/2020	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	05/05/2021	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	11/01/2021	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	05/08/2022	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	11/07/2022	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	05/09/2023	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	09/28/2016	ND	0.0500	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	10/19/2016	ND	50.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	11/09/2016	ND	50.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	12/12/2016	ND	5.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	02/05/2017	ND	6.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	03/24/2017	ND	24.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	05/25/2017	ND	6.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	06/20/2017	ND	6.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	08/08/2017	ND	6.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	05/09/2018	ND	5.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	09/12/2018	ND	1.4000		
Antimony, Total (Federal)	ug/L	MW-3	05/16/2019	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	11/06/2019	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	05/13/2020	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	11/03/2020	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	05/05/2021	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	11/01/2021	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	05/08/2022	ND	1.0000	1.4000	**

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Antimony, Total (Federal)	ug/L	MW-3	11/07/2022	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	05/07/2023	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	09/28/2016		0.2300		
Antimony, Total (Federal)	ug/L	MW-4C	10/19/2016	ND	50.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	11/09/2016	ND	50.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	12/12/2016	ND	5.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	02/05/2017	ND	6.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	03/25/2017	ND	24.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	05/25/2017	ND	6.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	06/20/2017	ND	6.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	08/08/2017	ND	6.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	05/09/2018	ND	5.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	09/12/2018	ND	1.4000		
Antimony, Total (Federal)	ug/L	MW-4C	05/16/2019	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	11/06/2019	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	05/13/2020	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	11/03/2020	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	05/05/2021	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	11/01/2021	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	05/08/2022	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	11/08/2022	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	05/09/2023	ND	1.0000	1.4000	**
Arsenic, Total (Federal)	ug/L	MW-2R	09/28/2016		4.3000		
Arsenic, Total (Federal)	ug/L	MW-2R	10/19/2016	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-2R	11/09/2016		6.4000		
Arsenic, Total (Federal)	ug/L	MW-2R	12/12/2016	ND	5.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-2R	03/16/2017	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-2R	03/17/2017	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-2R	03/24/2017	ND	40.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-2R	04/20/2017	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-2R	04/24/2017	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-2R	05/16/2017	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-2R	06/20/2017	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-2R	08/08/2017	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-2R	05/09/2018		31.0000		
Arsenic, Total (Federal)	ug/L	MW-2R	09/12/2018		11.0000		
Arsenic, Total (Federal)	ug/L	MW-2R	05/16/2019		8.3000		
Arsenic, Total (Federal)	ug/L	MW-2R	11/06/2019		10.5000		
Arsenic, Total (Federal)	ug/L	MW-2R	05/13/2020		14.7000		
Arsenic, Total (Federal)	ug/L	MW-2R	11/03/2020		8.9000		
Arsenic, Total (Federal)	ug/L	MW-2R	05/05/2021		6.2000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Arsenic, Total (Federal)	ug/L	MW-2R	11/01/2021		9.9000		
Arsenic, Total (Federal)	ug/L	MW-2R	05/08/2022		16.3000		
Arsenic, Total (Federal)	ug/L	MW-2R	11/07/2022		10.0000		
Arsenic, Total (Federal)	ug/L	MW-2R	05/09/2023		78.0000		
Arsenic, Total (Federal)	ug/L	MW-2R	11/08/2023		7.5000		
Arsenic, Total (Federal)	ug/L	MW-3	09/28/2016		4.0000		
Arsenic, Total (Federal)	ug/L	MW-3	10/19/2016	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-3	11/09/2016		7.4000		
Arsenic, Total (Federal)	ug/L	MW-3	12/12/2016	ND	5.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-3	02/05/2017	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-3	03/24/2017	ND	40.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-3	05/25/2017	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-3	06/20/2017	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-3	08/08/2017	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-3	05/09/2018	ND	5.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-3	09/12/2018	ND	5.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-3	05/16/2019		12.9000		
Arsenic, Total (Federal)	ug/L	MW-3	11/06/2019		10.3000		
Arsenic, Total (Federal)	ug/L	MW-3	05/13/2020		16.2000		
Arsenic, Total (Federal)	ug/L	MW-3	11/03/2020		20.5000		
Arsenic, Total (Federal)	ug/L	MW-3	05/05/2021		17.0000		
Arsenic, Total (Federal)	ug/L	MW-3	11/01/2021		17.9000		
Arsenic, Total (Federal)	ug/L	MW-3	05/08/2022		14.8000		
Arsenic, Total (Federal)	ug/L	MW-3	11/07/2022		17.3000		
Arsenic, Total (Federal)	ug/L	MW-3	05/07/2023		32.3000		
Arsenic, Total (Federal)	ug/L	MW-3	11/08/2023		59.3000		
Arsenic, Total (Federal)	ug/L	MW-4C	09/28/2016		2.4000		
Arsenic, Total (Federal)	ug/L	MW-4C	10/19/2016	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-4C	11/09/2016		4.9000		
Arsenic, Total (Federal)	ug/L	MW-4C	12/12/2016	ND	5.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-4C	02/05/2017	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-4C	03/25/2017	ND	40.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-4C	05/25/2017	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-4C	06/20/2017	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-4C	08/08/2017	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-4C	05/09/2018	ND	5.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-4C	09/12/2018	ND	1.2000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-4C	05/16/2019	ND	1.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-4C	11/06/2019	ND	1.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-4C	05/13/2020	ND	1.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-4C	11/03/2020	ND	1.0000	10.0000	**

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Arsenic, Total (Federal)	ug/L	MW-4C	05/05/2021	ND	1.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-4C	11/01/2021	ND	1.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-4C	05/08/2022	ND	1.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-4C	11/08/2022	ND	1.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-4C	05/09/2023	ND	1.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-4C	11/08/2023	ND	1.0000	10.0000	**
Barium, Total (Federal)	ug/L	MW-2R	09/28/2016		43.0000		
Barium, Total (Federal)	ug/L	MW-2R	10/19/2016		37.0000		
Barium, Total (Federal)	ug/L	MW-2R	11/09/2016		37.0000		
Barium, Total (Federal)	ug/L	MW-2R	12/12/2016		29.0000		
Barium, Total (Federal)	ug/L	MW-2R	03/16/2017		53.0000		
Barium, Total (Federal)	ug/L	MW-2R	03/17/2017		66.0000		
Barium, Total (Federal)	ug/L	MW-2R	03/24/2017		54.0000		
Barium, Total (Federal)	ug/L	MW-2R	04/20/2017		46.0000		
Barium, Total (Federal)	ug/L	MW-2R	04/24/2017		56.0000		
Barium, Total (Federal)	ug/L	MW-2R	05/16/2017		46.0000		
Barium, Total (Federal)	ug/L	MW-2R	06/20/2017		45.0000		
Barium, Total (Federal)	ug/L	MW-2R	08/08/2017		42.0000		
Barium, Total (Federal)	ug/L	MW-2R	05/09/2018		73.0000		
Barium, Total (Federal)	ug/L	MW-2R	09/12/2018		44.0000		
Barium, Total (Federal)	ug/L	MW-2R	05/16/2019		35.5000		
Barium, Total (Federal)	ug/L	MW-2R	11/06/2019		39.0000		
Barium, Total (Federal)	ug/L	MW-2R	05/13/2020		42.5000		
Barium, Total (Federal)	ug/L	MW-2R	11/03/2020		45.0000		
Barium, Total (Federal)	ug/L	MW-2R	05/05/2021		44.6000		
Barium, Total (Federal)	ug/L	MW-2R	11/01/2021		54.0000		
Barium, Total (Federal)	ug/L	MW-2R	05/08/2022		45.2000		
Barium, Total (Federal)	ug/L	MW-2R	11/07/2022		48.6000		
Barium, Total (Federal)	ug/L	MW-2R	05/09/2023		80.4000		
Barium, Total (Federal)	ug/L	MW-2R	11/08/2023		45.2000		
Barium, Total (Federal)	ug/L	MW-3	09/28/2016		32.0000		
Barium, Total (Federal)	ug/L	MW-3	10/19/2016		31.0000		
Barium, Total (Federal)	ug/L	MW-3	11/09/2016		36.0000		
Barium, Total (Federal)	ug/L	MW-3	12/12/2016		29.0000		
Barium, Total (Federal)	ug/L	MW-3	02/05/2017		37.0000		
Barium, Total (Federal)	ug/L	MW-3	03/24/2017		32.0000		
Barium, Total (Federal)	ug/L	MW-3	05/25/2017		36.0000		
Barium, Total (Federal)	ug/L	MW-3	06/20/2017		36.0000		
Barium, Total (Federal)	ug/L	MW-3	08/08/2017		40.0000		
Barium, Total (Federal)	ug/L	MW-3	05/09/2018		38.0000		
Barium, Total (Federal)	ug/L	MW-3	09/12/2018		45.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Barium, Total (Federal)	ug/L	MW-3	05/16/2019		28.6000		
Barium, Total (Federal)	ug/L	MW-3	11/06/2019		42.8000		
Barium, Total (Federal)	ug/L	MW-3	05/13/2020		43.7000		
Barium, Total (Federal)	ug/L	MW-3	11/03/2020		39.4000		
Barium, Total (Federal)	ug/L	MW-3	05/05/2021		37.3000		
Barium, Total (Federal)	ug/L	MW-3	11/01/2021		38.2000		
Barium, Total (Federal)	ug/L	MW-3	05/08/2022		55.0000		
Barium, Total (Federal)	ug/L	MW-3	11/07/2022		46.1000		
Barium, Total (Federal)	ug/L	MW-3	05/07/2023		61.6000		
Barium, Total (Federal)	ug/L	MW-3	11/08/2023		59.1000		
Barium, Total (Federal)	ug/L	MW-4C	09/28/2016		27.0000		
Barium, Total (Federal)	ug/L	MW-4C	10/19/2016		28.0000		
Barium, Total (Federal)	ug/L	MW-4C	11/09/2016		32.0000		
Barium, Total (Federal)	ug/L	MW-4C	12/12/2016		26.0000		
Barium, Total (Federal)	ug/L	MW-4C	02/05/2017		30.0000		
Barium, Total (Federal)	ug/L	MW-4C	03/25/2017		25.0000		
Barium, Total (Federal)	ug/L	MW-4C	05/25/2017		28.0000		
Barium, Total (Federal)	ug/L	MW-4C	06/20/2017		27.0000		
Barium, Total (Federal)	ug/L	MW-4C	08/08/2017		27.0000		
Barium, Total (Federal)	ug/L	MW-4C	05/09/2018		14.0000		
Barium, Total (Federal)	ug/L	MW-4C	09/12/2018		29.0000		
Barium, Total (Federal)	ug/L	MW-4C	05/16/2019		26.2000		
Barium, Total (Federal)	ug/L	MW-4C	11/06/2019		29.1000		
Barium, Total (Federal)	ug/L	MW-4C	05/13/2020		28.3000		
Barium, Total (Federal)	ug/L	MW-4C	11/03/2020		30.7000		
Barium, Total (Federal)	ug/L	MW-4C	05/05/2021		28.6000		
Barium, Total (Federal)	ug/L	MW-4C	11/01/2021		30.7000		
Barium, Total (Federal)	ug/L	MW-4C	05/08/2022		26.6000		
Barium, Total (Federal)	ug/L	MW-4C	11/08/2022		32.6000		
Barium, Total (Federal)	ug/L	MW-4C	05/09/2023		27.5000		
Barium, Total (Federal)	ug/L	MW-4C	11/08/2023		28.6000		
Beryllium, Total (Federal)	ug/L	MW-2R	09/28/2016	ND	10.0000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-2R	10/19/2016	ND	10.0000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-2R	11/09/2016	ND	10.0000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-2R	12/12/2016	ND	10.0000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-2R	03/16/2017	ND	1.0000		
Beryllium, Total (Federal)	ug/L	MW-2R	03/17/2017	ND	1.0000		
Beryllium, Total (Federal)	ug/L	MW-2R	03/24/2017	ND	4.0000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-2R	04/20/2017	ND	1.0000		
Beryllium, Total (Federal)	ug/L	MW-2R	04/24/2017	ND	1.0000		
Beryllium, Total (Federal)	ug/L	MW-2R	05/16/2017	ND	1.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Beryllium, Total (Federal)	ug/L	MW-2R	06/20/2017	ND	1.0000		
Beryllium, Total (Federal)	ug/L	MW-2R	08/08/2017	ND	1.0000		
Beryllium, Total (Federal)	ug/L	MW-2R	05/09/2018	ND	5.0000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-2R	09/12/2018	ND	0.6500	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-2R	05/16/2019	ND	0.2000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-2R	11/06/2019	ND	0.2000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-2R	05/13/2020	ND	0.2000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-2R	11/03/2020	ND	0.2000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-2R	05/05/2021	ND	0.2000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-2R	11/01/2021	ND	0.2000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-2R	05/08/2022	ND	0.2000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-2R	11/07/2022	ND	0.2000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-2R	05/09/2023	ND	0.2000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-3	09/28/2016	ND	10.0000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-3	10/19/2016	ND	10.0000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-3	11/09/2016	ND	10.0000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-3	12/12/2016	ND	10.0000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-3	02/05/2017	ND	4.0000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-3	03/24/2017	ND	4.0000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-3	05/25/2017	ND	1.0000		
Beryllium, Total (Federal)	ug/L	MW-3	06/20/2017	ND	1.0000		
Beryllium, Total (Federal)	ug/L	MW-3	08/08/2017	ND	1.0000		
Beryllium, Total (Federal)	ug/L	MW-3	05/09/2018	ND	5.0000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-3	09/12/2018	ND	0.6500	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-3	05/16/2019	ND	0.2000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-3	11/06/2019	ND	0.2000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-3	05/13/2020	ND	0.2000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-3	11/03/2020	ND	0.2000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-3	05/05/2021	ND	0.2000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-3	11/01/2021	ND	0.2000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-3	05/08/2022	ND	0.2000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-3	11/07/2022	ND	0.2000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-3	05/07/2023	ND	0.2000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-4C	09/28/2016	ND	10.0000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-4C	10/19/2016	ND	10.0000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-4C	11/09/2016	ND	10.0000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-4C	12/12/2016	ND	10.0000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-4C	02/05/2017	ND	4.0000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-4C	03/25/2017	ND	4.0000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-4C	05/25/2017	ND	1.0000		
Beryllium, Total (Federal)	ug/L	MW-4C	06/20/2017	ND	1.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Beryllium, Total (Federal)	ug/L	MW-4C	08/08/2017	ND	1.0000		
Beryllium, Total (Federal)	ug/L	MW-4C	05/09/2018	ND	5.0000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-4C	09/12/2018	ND	0.6500	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-4C	05/16/2019	ND	0.2000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-4C	11/06/2019	ND	0.2000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-4C	05/13/2020	ND	0.2000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-4C	11/03/2020	ND	0.2000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-4C	05/05/2021	ND	0.2000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-4C	11/01/2021	ND	0.2000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-4C	05/08/2022	ND	0.2000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-4C	11/08/2022	ND	0.2000	1.0000	**
Beryllium, Total (Federal)	ug/L	MW-4C	05/09/2023	ND	0.2000	1.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	09/28/2016	ND	10.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	10/19/2016	ND	10.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	11/09/2016	ND	10.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	12/12/2016	ND	10.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	03/16/2017	ND	1.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	03/17/2017	ND	1.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	03/24/2017	ND	4.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	04/20/2017	ND	1.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	04/24/2017	ND	1.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	05/16/2017	ND	1.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	06/20/2017	ND	1.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	08/08/2017	ND	1.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	05/09/2018	ND	5.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	09/12/2018	ND	0.5500	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	05/16/2019	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-2R	11/06/2019	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-2R	05/13/2020	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-2R	11/03/2020	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-2R	05/05/2021	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-2R	11/01/2021	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-2R	05/08/2022	ND	0.2000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	11/07/2022	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-2R	05/09/2023	ND	0.2000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-3	09/28/2016	ND	10.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-3	10/19/2016	ND	10.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-3	11/09/2016	ND	10.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-3	12/12/2016	ND	10.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-3	02/05/2017	ND	1.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-3	03/24/2017	ND	4.0000	2.0000	**

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Cadmium, Total (Federal)	ug/L	MW-3	05/25/2017	ND	1.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-3	06/20/2017	ND	1.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-3	08/08/2017	ND	1.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-3	05/09/2018	ND	5.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-3	09/12/2018	ND	0.5500	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-3	05/16/2019	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-3	11/06/2019	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-3	05/13/2020	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-3	11/03/2020	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-3	05/05/2021	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-3	11/01/2021	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-3	05/08/2022	ND	0.2000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-3	11/07/2022	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-3	05/07/2023	ND	0.2000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-4C	09/28/2016	ND	10.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-4C	10/19/2016	ND	10.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-4C	11/09/2016	ND	10.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-4C	12/12/2016	ND	10.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-4C	02/05/2017	ND	1.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-4C	03/25/2017	ND	4.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-4C	05/25/2017	ND	1.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-4C	06/20/2017	ND	1.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-4C	08/08/2017	ND	1.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-4C	05/09/2018	ND	5.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-4C	09/12/2018	ND	0.5500	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-4C	05/16/2019	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-4C	11/06/2019	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-4C	05/13/2020	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-4C	11/03/2020	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-4C	05/05/2021	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-4C	11/01/2021	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-4C	05/08/2022		0.8800		
Cadmium, Total (Federal)	ug/L	MW-4C	11/08/2022	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-4C	05/09/2023		0.3900		
Chromium, Total (Federal)	ug/L	MW-2R	09/28/2016	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	10/19/2016	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	11/09/2016	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	12/12/2016	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	03/16/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	03/17/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	03/24/2017	ND	10.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Chromium, Total (Federal)	ug/L	MW-2R	04/20/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	04/24/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	05/16/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	06/20/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	08/08/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	05/09/2018	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	05/16/2019	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	05/13/2020	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	05/05/2021	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	11/01/2021	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	05/08/2022	ND	2.0000	10.0000	**
Chromium, Total (Federal)	ug/L	MW-2R	11/07/2022	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	05/09/2023	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	09/28/2016	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	10/19/2016	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	11/09/2016	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	12/12/2016	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	02/05/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	03/24/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	05/25/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	06/20/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	08/08/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	05/09/2018	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	05/16/2019	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	05/13/2020	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	05/05/2021	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	11/01/2021	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	05/08/2022	ND	2.0000	10.0000	**
Chromium, Total (Federal)	ug/L	MW-3	11/07/2022	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	05/07/2023	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	09/28/2016	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	10/19/2016	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	11/09/2016	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	12/12/2016	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	02/05/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	03/25/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	05/25/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	06/20/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	08/08/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	05/09/2018	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	05/16/2019	ND	10.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Chromium, Total (Federal)	ug/L	MW-4C	05/13/2020	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	05/05/2021	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	11/01/2021	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	05/08/2022	ND	2.0000	10.0000	**
Chromium, Total (Federal)	ug/L	MW-4C	11/08/2022	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	05/09/2023	ND	10.0000		
Cobalt, Total (Federal)	ug/L	MW-2R	09/28/2016	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-2R	10/19/2016	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-2R	11/09/2016	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-2R	12/12/2016	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-2R	03/16/2017	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-2R	03/17/2017	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-2R	03/24/2017	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-2R	04/20/2017	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-2R	04/24/2017	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-2R	05/16/2017	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-2R	06/20/2017	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-2R	08/08/2017	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-2R	05/09/2018	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-2R	09/12/2018	ND	3.6000	20.0000	**
Cobalt, Total (Federal)	ug/L	MW-2R	05/16/2019		3.3000		
Cobalt, Total (Federal)	ug/L	MW-2R	11/06/2019		3.1000		
Cobalt, Total (Federal)	ug/L	MW-2R	05/13/2020		2.8000		
Cobalt, Total (Federal)	ug/L	MW-2R	11/03/2020		3.1000		
Cobalt, Total (Federal)	ug/L	MW-2R	05/05/2021		2.9000		
Cobalt, Total (Federal)	ug/L	MW-2R	11/01/2021		2.2000		
Cobalt, Total (Federal)	ug/L	MW-2R	05/08/2022		3.3000		
Cobalt, Total (Federal)	ug/L	MW-2R	11/07/2022		2.0000		
Cobalt, Total (Federal)	ug/L	MW-2R	05/09/2023		3.7000		
Cobalt, Total (Federal)	ug/L	MW-2R	11/08/2023		2.7000		
Cobalt, Total (Federal)	ug/L	MW-3	09/28/2016	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-3	10/19/2016	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-3	11/09/2016	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-3	12/12/2016	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-3	02/05/2017	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-3	03/24/2017	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-3	05/25/2017	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-3	06/20/2017	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-3	08/08/2017	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-3	05/09/2018	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-3	09/12/2018	ND	3.6000	20.0000	**

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Cobalt, Total (Federal)	ug/L	MW-3	05/16/2019		2.0000		
Cobalt, Total (Federal)	ug/L	MW-3	11/06/2019		2.6000		
Cobalt, Total (Federal)	ug/L	MW-3	05/13/2020		2.7000		
Cobalt, Total (Federal)	ug/L	MW-3	11/03/2020		2.1000		
Cobalt, Total (Federal)	ug/L	MW-3	05/05/2021		2.1000		
Cobalt, Total (Federal)	ug/L	MW-3	11/01/2021		2.3000		
Cobalt, Total (Federal)	ug/L	MW-3	05/08/2022		1.8000		
Cobalt, Total (Federal)	ug/L	MW-3	11/07/2022		2.6000		
Cobalt, Total (Federal)	ug/L	MW-3	05/07/2023		2.3000		
Cobalt, Total (Federal)	ug/L	MW-3	11/08/2023		2.2000		
Cobalt, Total (Federal)	ug/L	MW-4C	09/28/2016	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-4C	10/19/2016	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-4C	11/09/2016	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-4C	12/12/2016	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-4C	02/05/2017	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-4C	03/25/2017	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-4C	05/25/2017	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-4C	06/20/2017	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-4C	08/08/2017	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-4C	05/09/2018	ND	20.0000		
Cobalt, Total (Federal)	ug/L	MW-4C	09/12/2018	ND	3.6000	20.0000	**
Cobalt, Total (Federal)	ug/L	MW-4C	05/16/2019		1.0000		
Cobalt, Total (Federal)	ug/L	MW-4C	11/06/2019	ND	1.0000	20.0000	**
Cobalt, Total (Federal)	ug/L	MW-4C	05/13/2020	ND	1.0000	20.0000	**
Cobalt, Total (Federal)	ug/L	MW-4C	11/03/2020		1.0000		
Cobalt, Total (Federal)	ug/L	MW-4C	05/05/2021		1.2000		
Cobalt, Total (Federal)	ug/L	MW-4C	11/01/2021		1.1000		
Cobalt, Total (Federal)	ug/L	MW-4C	05/08/2022	ND	1.0000	20.0000	**
Cobalt, Total (Federal)	ug/L	MW-4C	11/08/2022		1.1000		
Cobalt, Total (Federal)	ug/L	MW-4C	05/09/2023	ND	1.0000	20.0000	**
Cobalt, Total (Federal)	ug/L	MW-4C	11/08/2023		1.1000		
Fluoride (Federal)	mg/L	MW-2R	09/28/2016	ND	0.5000	5.0000	**
Fluoride (Federal)	mg/L	MW-2R	10/19/2016	ND	5.0000		
Fluoride (Federal)	mg/L	MW-2R	11/09/2016	ND	0.5000	5.0000	**
Fluoride (Federal)	mg/L	MW-2R	12/12/2016	ND	5.0000		
Fluoride (Federal)	mg/L	MW-2R	03/16/2017	ND	5.0000		
Fluoride (Federal)	mg/L	MW-2R	03/17/2017	ND	5.0000		
Fluoride (Federal)	mg/L	MW-2R	03/24/2017	ND	5.0000		
Fluoride (Federal)	mg/L	MW-2R	04/20/2017	ND	5.0000		
Fluoride (Federal)	mg/L	MW-2R	04/24/2017	ND	5.0000		
Fluoride (Federal)	mg/L	MW-2R	05/16/2017	ND	5.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Fluoride (Federal)	mg/L	MW-2R	06/20/2017	ND	5.0000		
Fluoride (Federal)	mg/L	MW-2R	08/08/2017	ND	5.0000		
Fluoride (Federal)	mg/L	MW-2R	05/09/2018	ND	5.0000		
Fluoride (Federal)	mg/L	MW-2R	09/12/2018	ND	0.6000	5.0000	**
Fluoride (Federal)	mg/L	MW-2R	05/16/2019	ND	0.1000	5.0000	**
Fluoride (Federal)	mg/L	MW-2R	11/06/2019	ND	0.1000	5.0000	**
Fluoride (Federal)	mg/L	MW-2R	05/13/2020		0.1200		
Fluoride (Federal)	mg/L	MW-2R	11/03/2020		0.1200		
Fluoride (Federal)	mg/L	MW-2R	05/05/2021	ND	0.1000	5.0000	**
Fluoride (Federal)	mg/L	MW-2R	11/01/2021	ND	0.1000	5.0000	**
Fluoride (Federal)	mg/L	MW-2R	05/08/2022	ND	0.1000	5.0000	**
Fluoride (Federal)	mg/L	MW-2R	11/07/2022	ND	0.1000	5.0000	**
Fluoride (Federal)	mg/L	MW-2R	05/09/2023	ND	0.1000	5.0000	**
Fluoride (Federal)	mg/L	MW-2R	11/08/2023	ND	0.1000	5.0000	**
Fluoride (Federal)	mg/L	MW-3	09/28/2016	ND	0.5000	5.0000	**
Fluoride (Federal)	mg/L	MW-3	10/19/2016	ND	5.0000		
Fluoride (Federal)	mg/L	MW-3	11/09/2016	ND	0.5000	5.0000	**
Fluoride (Federal)	mg/L	MW-3	12/12/2016	ND	5.0000		
Fluoride (Federal)	mg/L	MW-3	02/05/2017	ND	5.0000		
Fluoride (Federal)	mg/L	MW-3	03/24/2017	ND	5.0000		
Fluoride (Federal)	mg/L	MW-3	05/25/2017	ND	5.0000		
Fluoride (Federal)	mg/L	MW-3	06/20/2017	ND	5.0000		
Fluoride (Federal)	mg/L	MW-3	08/08/2017	ND	5.0000		
Fluoride (Federal)	mg/L	MW-3	05/09/2018	ND	5.0000		
Fluoride (Federal)	mg/L	MW-3	09/12/2018	ND	0.6000	5.0000	**
Fluoride (Federal)	mg/L	MW-3	05/16/2019		0.1900		
Fluoride (Federal)	mg/L	MW-3	11/06/2019		0.1300		
Fluoride (Federal)	mg/L	MW-3	05/13/2020		0.3500		
Fluoride (Federal)	mg/L	MW-3	11/03/2020		0.1700		
Fluoride (Federal)	mg/L	MW-3	05/05/2021		0.1400		
Fluoride (Federal)	mg/L	MW-3	11/01/2021		0.1000		
Fluoride (Federal)	mg/L	MW-3	05/08/2022	ND	0.1000	5.0000	**
Fluoride (Federal)	mg/L	MW-3	11/07/2022	ND	0.1000	5.0000	**
Fluoride (Federal)	mg/L	MW-3	05/07/2023		0.1400		
Fluoride (Federal)	mg/L	MW-3	11/08/2023	ND	0.1000	5.0000	**
Fluoride (Federal)	mg/L	MW-4C	09/28/2016	ND	0.5000	5.0000	**
Fluoride (Federal)	mg/L	MW-4C	10/19/2016	ND	5.0000		
Fluoride (Federal)	mg/L	MW-4C	11/09/2016	ND	0.5000	5.0000	**
Fluoride (Federal)	mg/L	MW-4C	12/12/2016	ND	5.0000		
Fluoride (Federal)	mg/L	MW-4C	02/05/2017	ND	5.0000		
Fluoride (Federal)	mg/L	MW-4C	03/25/2017	ND	5.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Fluoride (Federal)	mg/L	MW-4C	05/25/2017	ND	5.0000		
Fluoride (Federal)	mg/L	MW-4C	06/20/2017	ND	5.0000		
Fluoride (Federal)	mg/L	MW-4C	08/08/2017	ND	5.0000		
Fluoride (Federal)	mg/L	MW-4C	05/09/2018	ND	5.0000		
Fluoride (Federal)	mg/L	MW-4C	09/12/2018	ND	0.6000	5.0000	**
Fluoride (Federal)	mg/L	MW-4C	05/16/2019		0.1100		
Fluoride (Federal)	mg/L	MW-4C	11/06/2019		0.1200		
Fluoride (Federal)	mg/L	MW-4C	05/13/2020		0.1900		
Fluoride (Federal)	mg/L	MW-4C	11/03/2020		0.1200		
Fluoride (Federal)	mg/L	MW-4C	05/05/2021	ND	0.1000	5.0000	**
Fluoride (Federal)	mg/L	MW-4C	11/01/2021		0.1200		
Fluoride (Federal)	mg/L	MW-4C	05/08/2022	ND	0.1000	5.0000	**
Fluoride (Federal)	mg/L	MW-4C	11/08/2022		0.1800		
Fluoride (Federal)	mg/L	MW-4C	05/09/2023	ND	0.1000	5.0000	**
Fluoride (Federal)	mg/L	MW-4C	11/08/2023		0.1600		
Lead, Total (Federal)	ug/L	MW-2R	09/28/2016	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	10/19/2016	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	11/09/2016	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	12/12/2016	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	03/16/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	03/17/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	03/24/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	04/20/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	04/24/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	05/16/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	06/20/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	08/08/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	05/09/2018	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	05/16/2019	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	11/06/2019	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	05/13/2020	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	11/03/2020	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	05/05/2021	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	11/01/2021	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	05/08/2022	ND	1.0000	10.0000	**
Lead, Total (Federal)	ug/L	MW-2R	11/07/2022	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	05/09/2023	ND	1.0000	10.0000	**
Lead, Total (Federal)	ug/L	MW-2R	11/08/2023	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	09/28/2016	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	10/19/2016	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	11/09/2016	ND	10.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Lead, Total (Federal)	ug/L	MW-3	12/12/2016	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	02/05/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	03/24/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	05/25/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	06/20/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	08/08/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	05/09/2018	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	05/16/2019		47.8000		
Lead, Total (Federal)	ug/L	MW-3	11/06/2019	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	05/13/2020	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	11/03/2020	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	05/05/2021	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	11/01/2021	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	05/08/2022	ND	1.0000	10.0000	**
Lead, Total (Federal)	ug/L	MW-3	11/07/2022	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	05/07/2023	ND	1.0000	10.0000	**
Lead, Total (Federal)	ug/L	MW-3	11/08/2023	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	09/28/2016	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	10/19/2016	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	11/09/2016	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	12/12/2016	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	02/05/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	03/25/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	05/25/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	06/20/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	08/08/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	05/09/2018	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	05/16/2019	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	11/06/2019	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	05/13/2020	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	11/03/2020	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	05/05/2021	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	11/01/2021	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	05/08/2022	ND	1.0000	10.0000	**
Lead, Total (Federal)	ug/L	MW-4C	11/08/2022	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	05/09/2023	ND	1.0000	10.0000	**
Lead, Total (Federal)	ug/L	MW-4C	11/08/2023	ND	10.0000		
Lithium, Total (Federal)	ug/L	MW-2R	09/28/2016		1100.0000		
Lithium, Total (Federal)	ug/L	MW-2R	10/19/2016		820.0000		
Lithium, Total (Federal)	ug/L	MW-2R	11/09/2016		780.0000		
Lithium, Total (Federal)	ug/L	MW-2R	12/12/2016		510.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Lithium, Total (Federal)	ug/L	MW-2R	03/16/2017		280.0000		
Lithium, Total (Federal)	ug/L	MW-2R	03/17/2017		410.0000		
Lithium, Total (Federal)	ug/L	MW-2R	03/24/2017		530.0000		
Lithium, Total (Federal)	ug/L	MW-2R	04/20/2017		780.0000		
Lithium, Total (Federal)	ug/L	MW-2R	04/24/2017		840.0000		
Lithium, Total (Federal)	ug/L	MW-2R	05/16/2017		1100.0000		
Lithium, Total (Federal)	ug/L	MW-2R	06/20/2017		1100.0000		
Lithium, Total (Federal)	ug/L	MW-2R	08/08/2017		1000.0000		
Lithium, Total (Federal)	ug/L	MW-2R	05/09/2018		960.0000		
Lithium, Total (Federal)	ug/L	MW-2R	09/12/2018		800.0000		
Lithium, Total (Federal)	ug/L	MW-2R	05/16/2019		616.0000		
Lithium, Total (Federal)	ug/L	MW-2R	11/06/2019		495.0000		
Lithium, Total (Federal)	ug/L	MW-2R	05/13/2020		638.0000		
Lithium, Total (Federal)	ug/L	MW-2R	11/03/2020		522.0000		
Lithium, Total (Federal)	ug/L	MW-2R	05/05/2021		890.0000		
Lithium, Total (Federal)	ug/L	MW-2R	11/01/2021		912.0000		
Lithium, Total (Federal)	ug/L	MW-2R	05/08/2022		897.0000		
Lithium, Total (Federal)	ug/L	MW-2R	11/07/2022		812.0000		
Lithium, Total (Federal)	ug/L	MW-2R	05/09/2023		703.0000		
Lithium, Total (Federal)	ug/L	MW-2R	11/08/2023		638.0000		
Lithium, Total (Federal)	ug/L	MW-3	09/28/2016		2000.0000		
Lithium, Total (Federal)	ug/L	MW-3	10/19/2016		1900.0000		
Lithium, Total (Federal)	ug/L	MW-3	11/09/2016		2200.0000		
Lithium, Total (Federal)	ug/L	MW-3	12/12/2016		2200.0000		
Lithium, Total (Federal)	ug/L	MW-3	02/05/2017		2100.0000		
Lithium, Total (Federal)	ug/L	MW-3	03/24/2017		2100.0000		
Lithium, Total (Federal)	ug/L	MW-3	05/25/2017		2000.0000		
Lithium, Total (Federal)	ug/L	MW-3	06/20/2017		2000.0000		
Lithium, Total (Federal)	ug/L	MW-3	08/08/2017		1600.0000		
Lithium, Total (Federal)	ug/L	MW-3	05/09/2018		2600.0000		
Lithium, Total (Federal)	ug/L	MW-3	09/12/2018		2600.0000		
Lithium, Total (Federal)	ug/L	MW-3	05/16/2019		1260.0000		
Lithium, Total (Federal)	ug/L	MW-3	11/06/2019		1930.0000		
Lithium, Total (Federal)	ug/L	MW-3	05/13/2020		1520.0000		
Lithium, Total (Federal)	ug/L	MW-3	11/03/2020		1760.0000		
Lithium, Total (Federal)	ug/L	MW-3	05/05/2021		1820.0000		
Lithium, Total (Federal)	ug/L	MW-3	11/01/2021		1880.0000		
Lithium, Total (Federal)	ug/L	MW-3	05/08/2022		1960.0000		
Lithium, Total (Federal)	ug/L	MW-3	11/07/2022		1980.0000		
Lithium, Total (Federal)	ug/L	MW-3	05/07/2023		1710.0000		
Lithium, Total (Federal)	ug/L	MW-3	11/08/2023		1640.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Lithium, Total (Federal)	ug/L	MW-4C	09/28/2016		310.0000		
Lithium, Total (Federal)	ug/L	MW-4C	10/19/2016		280.0000		
Lithium, Total (Federal)	ug/L	MW-4C	11/09/2016		330.0000		
Lithium, Total (Federal)	ug/L	MW-4C	12/12/2016		260.0000		
Lithium, Total (Federal)	ug/L	MW-4C	02/05/2017		310.0000		
Lithium, Total (Federal)	ug/L	MW-4C	03/25/2017		290.0000		
Lithium, Total (Federal)	ug/L	MW-4C	05/25/2017		330.0000		
Lithium, Total (Federal)	ug/L	MW-4C	06/20/2017		250.0000		
Lithium, Total (Federal)	ug/L	MW-4C	08/08/2017		230.0000		
Lithium, Total (Federal)	ug/L	MW-4C	05/09/2018		250.0000		
Lithium, Total (Federal)	ug/L	MW-4C	09/12/2018		280.0000		
Lithium, Total (Federal)	ug/L	MW-4C	05/16/2019		316.0000		
Lithium, Total (Federal)	ug/L	MW-4C	11/06/2019		284.0000		
Lithium, Total (Federal)	ug/L	MW-4C	05/13/2020		242.0000		
Lithium, Total (Federal)	ug/L	MW-4C	11/03/2020		287.0000		
Lithium, Total (Federal)	ug/L	MW-4C	05/05/2021		359.0000		
Lithium, Total (Federal)	ug/L	MW-4C	11/01/2021		334.0000		
Lithium, Total (Federal)	ug/L	MW-4C	05/08/2022		442.0000		
Lithium, Total (Federal)	ug/L	MW-4C	11/08/2022		411.0000		
Lithium, Total (Federal)	ug/L	MW-4C	05/09/2023		351.0000		
Lithium, Total (Federal)	ug/L	MW-4C	11/08/2023		351.0000		
Mercury, total (Federal)	ug/L	MW-2R	09/28/2016	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-2R	10/19/2016	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-2R	11/09/2016	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-2R	12/12/2016	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-2R	03/16/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-2R	03/17/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-2R	03/24/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-2R	04/20/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-2R	04/24/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-2R	05/16/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-2R	06/20/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-2R	08/08/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-2R	05/09/2018	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-2R	05/16/2019	ND	2.0000	0.2000	**
Mercury, total (Federal)	ug/L	MW-2R	05/13/2020	ND	2.0000	0.2000	**
Mercury, total (Federal)	ug/L	MW-2R	05/05/2021	ND	2.0000	0.2000	**
Mercury, total (Federal)	ug/L	MW-2R	11/01/2021	ND	2.0000	0.2000	**
Mercury, total (Federal)	ug/L	MW-2R	05/08/2022	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-2R	05/09/2023	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-3	09/28/2016	ND	0.2000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Mercury, total (Federal)	ug/L	MW-3	10/19/2016	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-3	11/09/2016	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-3	12/12/2016	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-3	02/05/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-3	03/24/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-3	05/25/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-3	06/20/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-3	08/08/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-3	05/09/2018	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-3	05/16/2019	ND	2.0000	0.2000	**
Mercury, total (Federal)	ug/L	MW-3	05/13/2020	ND	2.0000	0.2000	**
Mercury, total (Federal)	ug/L	MW-3	05/05/2021	ND	2.0000	0.2000	**
Mercury, total (Federal)	ug/L	MW-3	11/01/2021	ND	2.0000	0.2000	**
Mercury, total (Federal)	ug/L	MW-3	05/08/2022	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-3	05/07/2023	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-4C	09/28/2016	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-4C	10/19/2016	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-4C	11/09/2016	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-4C	12/12/2016	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-4C	02/05/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-4C	03/25/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-4C	05/25/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-4C	06/20/2017		0.3500		
Mercury, total (Federal)	ug/L	MW-4C	08/08/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-4C	05/09/2018	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-4C	05/16/2019	ND	2.0000	0.2000	**
Mercury, total (Federal)	ug/L	MW-4C	05/13/2020	ND	2.0000	0.2000	**
Mercury, total (Federal)	ug/L	MW-4C	05/05/2021	ND	2.0000	0.2000	**
Mercury, total (Federal)	ug/L	MW-4C	11/01/2021	ND	2.0000	0.2000	**
Mercury, total (Federal)	ug/L	MW-4C	05/08/2022	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-4C	05/09/2023	ND	0.2000		
Molybdenum, Total (Federal)	ug/L	MW-2R	09/28/2016	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-2R	10/19/2016	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-2R	11/09/2016	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-2R	12/12/2016	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-2R	03/16/2017	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-2R	03/17/2017	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-2R	03/24/2017	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-2R	04/20/2017	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-2R	04/24/2017	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-2R	05/16/2017	ND	100.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Molybdenum, Total (Federal)	ug/L	MW-2R	06/20/2017	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-2R	08/08/2017	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-2R	05/09/2018	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-2R	09/12/2018	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-2R	05/16/2019		11.2000		
Molybdenum, Total (Federal)	ug/L	MW-2R	11/06/2019	ND	10.0000	100.0000	**
Molybdenum, Total (Federal)	ug/L	MW-2R	05/13/2020		11.7000		
Molybdenum, Total (Federal)	ug/L	MW-2R	11/03/2020		12.8000		
Molybdenum, Total (Federal)	ug/L	MW-2R	05/05/2021		10.3000		
Molybdenum, Total (Federal)	ug/L	MW-2R	11/01/2021		11.0000		
Molybdenum, Total (Federal)	ug/L	MW-2R	05/08/2022		10.2000		
Molybdenum, Total (Federal)	ug/L	MW-2R	11/07/2022		10.7000		
Molybdenum, Total (Federal)	ug/L	MW-2R	05/09/2023		10.4000		
Molybdenum, Total (Federal)	ug/L	MW-2R	11/08/2023		10.6000		
Molybdenum, Total (Federal)	ug/L	MW-3	09/28/2016		350.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	10/19/2016		330.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	11/09/2016		280.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	12/12/2016		390.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	02/05/2017		660.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	03/24/2017		660.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	05/25/2017		570.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	06/20/2017		510.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	08/08/2017		330.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	05/09/2018		390.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	09/12/2018		520.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	05/16/2019		338.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	11/06/2019		508.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	05/13/2020		529.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	11/03/2020		549.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	05/05/2021		532.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	11/01/2021		501.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	05/08/2022		273.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	11/07/2022		304.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	05/07/2023		345.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	11/08/2023		242.0000		
Molybdenum, Total (Federal)	ug/L	MW-4C	09/28/2016	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-4C	10/19/2016	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-4C	11/09/2016	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-4C	12/12/2016	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-4C	02/05/2017	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-4C	03/25/2017	ND	100.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Molybdenum, Total (Federal)	ug/L	MW-4C	05/25/2017	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-4C	06/20/2017	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-4C	08/08/2017	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-4C	05/09/2018	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-4C	09/12/2018	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-4C	05/16/2019	ND	10.0000	100.0000	**
Molybdenum, Total (Federal)	ug/L	MW-4C	11/06/2019	ND	10.0000	100.0000	**
Molybdenum, Total (Federal)	ug/L	MW-4C	05/13/2020	ND	10.0000	100.0000	**
Molybdenum, Total (Federal)	ug/L	MW-4C	11/03/2020	ND	10.0000	100.0000	**
Molybdenum, Total (Federal)	ug/L	MW-4C	05/05/2021	ND	10.0000	100.0000	**
Molybdenum, Total (Federal)	ug/L	MW-4C	11/01/2021	ND	10.0000	100.0000	**
Molybdenum, Total (Federal)	ug/L	MW-4C	05/08/2022		7.8000		
Molybdenum, Total (Federal)	ug/L	MW-4C	11/08/2022	ND	10.0000	100.0000	**
Molybdenum, Total (Federal)	ug/L	MW-4C	05/09/2023		8.2000		
Molybdenum, Total (Federal)	ug/L	MW-4C	11/08/2023	ND	10.0000	100.0000	**
Selenium, Total (Federal)	ug/L	MW-2R	09/28/2016	ND	1.6000		
Selenium, Total (Federal)	ug/L	MW-2R	10/19/2016	ND	10.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-2R	11/09/2016	ND	20.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-2R	12/12/2016	ND	5.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-2R	03/16/2017	ND	5.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-2R	03/17/2017	ND	5.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-2R	03/24/2017	ND	20.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-2R	04/20/2017	ND	5.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-2R	04/24/2017	ND	5.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-2R	05/16/2017	ND	5.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-2R	06/20/2017		5.9000		
Selenium, Total (Federal)	ug/L	MW-2R	08/08/2017	ND	5.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-2R	05/09/2018	ND	5.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-2R	09/12/2018	ND	5.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-2R	05/16/2019	ND	1.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-2R	11/06/2019	ND	1.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-2R	05/13/2020	ND	1.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-2R	11/03/2020	ND	1.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-2R	05/05/2021	ND	1.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-2R	11/01/2021	ND	1.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-2R	05/08/2022	ND	1.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-2R	11/07/2022	ND	1.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-2R	05/09/2023	ND	1.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-2R	11/08/2023	ND	1.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-3	09/28/2016		2.6000		
Selenium, Total (Federal)	ug/L	MW-3	10/19/2016	ND	10.0000	1.6000	**

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Selenium, Total (Federal)	ug/L	MW-3	11/09/2016		2.3000		
Selenium, Total (Federal)	ug/L	MW-3	12/12/2016	ND	5.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-3	02/05/2017	ND	30.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-3	03/24/2017	ND	20.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-3	05/25/2017	ND	5.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-3	06/20/2017		5.2000		
Selenium, Total (Federal)	ug/L	MW-3	08/08/2017	ND	5.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-3	05/09/2018	ND	5.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-3	09/12/2018	ND	5.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-3	05/16/2019	ND	1.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-3	11/06/2019	ND	1.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-3	05/13/2020	ND	1.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-3	11/03/2020	ND	1.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-3	05/05/2021	ND	1.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-3	11/01/2021	ND	1.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-3	05/08/2022	ND	1.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-3	11/07/2022	ND	1.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-3	05/07/2023	ND	1.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-3	11/08/2023	ND	1.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-4C	09/28/2016	ND	1.6000		
Selenium, Total (Federal)	ug/L	MW-4C	10/19/2016	ND	10.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-4C	11/09/2016	ND	20.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-4C	12/12/2016	ND	5.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-4C	02/05/2017	ND	30.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-4C	03/25/2017	ND	20.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-4C	05/25/2017	ND	5.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-4C	06/20/2017	ND	5.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-4C	08/08/2017	ND	5.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-4C	05/09/2018	ND	5.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-4C	09/12/2018	ND	5.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-4C	05/16/2019	ND	1.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-4C	11/06/2019	ND	1.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-4C	05/13/2020	ND	1.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-4C	11/03/2020	ND	1.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-4C	05/05/2021	ND	1.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-4C	11/01/2021	ND	1.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-4C	05/08/2022	ND	1.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-4C	11/08/2022	ND	1.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-4C	05/09/2023	ND	1.0000	1.6000	**
Selenium, Total (Federal)	ug/L	MW-4C	11/08/2023	ND	1.0000	1.6000	**
Thallium, Total (Federal)	ug/L	MW-2R	09/28/2016	ND	50.0000	1.0000	**

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Thallium, Total (Federal)	ug/L	MW-2R	10/19/2016	ND	50.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-2R	11/09/2016	ND	50.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-2R	12/12/2016	ND	50.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-2R	03/16/2017	ND	5.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-2R	03/17/2017	ND	5.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-2R	03/24/2017	ND	20.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-2R	04/20/2017	ND	5.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-2R	04/24/2017	ND	5.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-2R	05/16/2017	ND	5.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-2R	06/20/2017	ND	5.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-2R	08/08/2017	ND	5.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-2R	05/09/2018	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-2R	09/12/2018		2.3000		
Thallium, Total (Federal)	ug/L	MW-2R	05/16/2019	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-2R	11/06/2019	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-2R	05/13/2020	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-2R	11/03/2020	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-2R	05/05/2021	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-2R	11/01/2021	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-2R	05/08/2022	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-2R	05/09/2023	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-2R	11/08/2023	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-3	09/28/2016	ND	50.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-3	10/19/2016	ND	50.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-3	11/09/2016	ND	50.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-3	12/12/2016	ND	50.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-3	02/05/2017	ND	2.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-3	03/24/2017	ND	20.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-3	05/25/2017	ND	5.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-3	06/20/2017	ND	5.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-3	08/08/2017	ND	5.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-3	05/09/2018	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-3	09/12/2018	ND	0.6000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-3	05/16/2019	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-3	11/06/2019	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-3	05/13/2020	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-3	11/03/2020	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-3	05/05/2021	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-3	11/01/2021	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-3	05/08/2022	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-3	05/07/2023	ND	1.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Thallium, Total (Federal)	ug/L	MW-3	11/08/2023	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-4C	09/28/2016	ND	50.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-4C	10/19/2016	ND	50.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-4C	11/09/2016	ND	50.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-4C	12/12/2016	ND	50.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-4C	02/05/2017	ND	2.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-4C	03/25/2017	ND	20.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-4C	05/25/2017	ND	5.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-4C	06/20/2017	ND	5.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-4C	08/08/2017	ND	5.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-4C	05/09/2018	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-4C	09/12/2018	ND	0.6000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-4C	05/16/2019	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-4C	11/06/2019	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-4C	05/13/2020	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-4C	11/03/2020	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-4C	05/05/2021	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-4C	11/01/2021	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-4C	05/08/2022	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-4C	05/09/2023	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-4C	11/08/2023	ND	1.0000		
Total Radium (Federal)	pCi/L	MW-2R	03/16/2017	ND	0.5500	1.0000	**
Total Radium (Federal)	pCi/L	MW-2R	03/17/2017		2.2800		
Total Radium (Federal)	pCi/L	MW-2R	03/24/2017		1.3600		
Total Radium (Federal)	pCi/L	MW-2R	04/20/2017		1.3800		
Total Radium (Federal)	pCi/L	MW-2R	04/24/2017		1.2000		
Total Radium (Federal)	pCi/L	MW-2R	05/16/2017		0.9700		
Total Radium (Federal)	pCi/L	MW-2R	06/20/2017		3.1200		
Total Radium (Federal)	pCi/L	MW-2R	08/08/2017		0.8900		
Total Radium (Federal)	pCi/L	MW-2R	05/09/2018		2.2000		
Total Radium (Federal)	pCi/L	MW-2R	09/12/2018	ND	1.0000		
Total Radium (Federal)	pCi/L	MW-2R	05/16/2019		1.1900		
Total Radium (Federal)	pCi/L	MW-2R	11/06/2019		0.8510		
Total Radium (Federal)	pCi/L	MW-2R	05/13/2020		1.0100		
Total Radium (Federal)	pCi/L	MW-2R	11/03/2020	ND	1.6200	1.0000	**
Total Radium (Federal)	pCi/L	MW-2R	05/05/2021		1.5900		
Total Radium (Federal)	pCi/L	MW-2R	11/01/2021	ND	1.7700	1.0000	**
Total Radium (Federal)	pCi/L	MW-2R	05/08/2022		1.2200		
Total Radium (Federal)	pCi/L	MW-2R	11/07/2022		1.0600		
Total Radium (Federal)	pCi/L	MW-2R	05/09/2023		1.4200		
Total Radium (Federal)	pCi/L	MW-2R	11/08/2023		1.3800		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Total Radium (Federal)	pCi/L	MW-3	09/28/2016		1.4000		
Total Radium (Federal)	pCi/L	MW-3	10/19/2016		2.5000		
Total Radium (Federal)	pCi/L	MW-3	11/09/2016		1.7700		
Total Radium (Federal)	pCi/L	MW-3	12/12/2016		2.0800		
Total Radium (Federal)	pCi/L	MW-3	02/05/2017		1.7000		
Total Radium (Federal)	pCi/L	MW-3	03/24/2017	ND	0.6000	1.0000	**
Total Radium (Federal)	pCi/L	MW-3	03/25/2017	ND	0.5000	1.0000	**
Total Radium (Federal)	pCi/L	MW-3	06/20/2017		0.9600		
Total Radium (Federal)	pCi/L	MW-3	08/08/2017		2.2000		
Total Radium (Federal)	pCi/L	MW-3	05/09/2018		2.0700		
Total Radium (Federal)	pCi/L	MW-3	09/12/2018	ND	1.0000		
Total Radium (Federal)	pCi/L	MW-3	05/16/2019		0.7450		
Total Radium (Federal)	pCi/L	MW-3	11/06/2019		4.4000		
Total Radium (Federal)	pCi/L	MW-3	05/13/2020		1.8000		
Total Radium (Federal)	pCi/L	MW-3	11/03/2020		0.7770		
Total Radium (Federal)	pCi/L	MW-3	05/05/2021		2.5100		
Total Radium (Federal)	pCi/L	MW-3	11/01/2021		1.5900		
Total Radium (Federal)	pCi/L	MW-3	05/08/2022		1.2600		
Total Radium (Federal)	pCi/L	MW-3	11/07/2022		0.6450		
Total Radium (Federal)	pCi/L	MW-3	05/07/2023		0.9250		
Total Radium (Federal)	pCi/L	MW-3	11/08/2023		2.1100		
Total Radium (Federal)	pCi/L	MW-4C	09/28/2016		2.1000		
Total Radium (Federal)	pCi/L	MW-4C	10/19/2016		1.1000		
Total Radium (Federal)	pCi/L	MW-4C	11/09/2016		0.8600		
Total Radium (Federal)	pCi/L	MW-4C	12/12/2016		2.2800		
Total Radium (Federal)	pCi/L	MW-4C	02/05/2017		2.5200		
Total Radium (Federal)	pCi/L	MW-4C	03/25/2017		1.4000		
Total Radium (Federal)	pCi/L	MW-4C	06/20/2017		3.0300		
Total Radium (Federal)	pCi/L	MW-4C	08/08/2017		2.0300		
Total Radium (Federal)	pCi/L	MW-4C	05/09/2018	ND	1.0000		
Total Radium (Federal)	pCi/L	MW-4C	09/12/2018	ND	1.0000		
Total Radium (Federal)	pCi/L	MW-4C	05/16/2019		0.7880		
Total Radium (Federal)	pCi/L	MW-4C	11/06/2019	ND	1.3700	1.0000	**
Total Radium (Federal)	pCi/L	MW-4C	05/13/2020	ND	1.9900	1.0000	**
Total Radium (Federal)	pCi/L	MW-4C	11/03/2020		1.2200		
Total Radium (Federal)	pCi/L	MW-4C	05/05/2021		2.0900		
Total Radium (Federal)	pCi/L	MW-4C	11/01/2021		1.2500		
Total Radium (Federal)	pCi/L	MW-4C	05/08/2022		1.1600		
Total Radium (Federal)	pCi/L	MW-4C	11/08/2022		0.6990		
Total Radium (Federal)	pCi/L	MW-4C	05/09/2023		0.8620		
Total Radium (Federal)	pCi/L	MW-4C	11/08/2023		1.5700		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Antimony, Total (Federal)	ug/L	AP-1R	05/04/2023	ND	1.0000		1.4000
Antimony, Total (Federal)	ug/L	AP-2A	05/04/2023	ND	1.0000		1.4000
Antimony, Total (Federal)	ug/L	AP-2BO	05/04/2023	ND	1.0000		1.4000
Antimony, Total (Federal)	ug/L	AP-3	05/03/2023	ND	1.0000		1.4000
Antimony, Total (Federal)	ug/L	AP-3A	05/03/2023	ND	1.0000		1.4000
Antimony, Total (Federal)	ug/L	AP-4A	05/03/2023	ND	1.0000		1.4000
Antimony, Total (Federal)	ug/L	AP-4B	05/03/2023	ND	1.0000		1.4000
Antimony, Total (Federal)	ug/L	AP-4I	05/03/2023	ND	1.0000		1.4000
Antimony, Total (Federal)	ug/L	AP-5	05/03/2023	ND	1.0000		1.4000
Antimony, Total (Federal)	ug/L	AP-5A	05/03/2023	ND	1.0000		1.4000
Antimony, Total (Federal)	ug/L	AP-6A	05/04/2023	ND	1.0000		1.4000
Antimony, Total (Federal)	ug/L	AP-6B	05/04/2023	ND	1.0000		1.4000
Antimony, Total (Federal)	ug/L	AP-7	05/04/2023	ND	1.0000		1.4000
Antimony, Total (Federal)	ug/L	AP-8	05/04/2023	ND	1.0000		1.4000
Arsenic, Total (Federal)	ug/L	AP-1R	11/06/2023		1.8000		78.0000
Arsenic, Total (Federal)	ug/L	AP-2A	11/07/2023		1580.0000	***	78.0000
Arsenic, Total (Federal)	ug/L	AP-2BO	11/07/2023		3.4000		78.0000
Arsenic, Total (Federal)	ug/L	AP-3	11/15/2023	ND	1.0000		78.0000
Arsenic, Total (Federal)	ug/L	AP-3A	11/07/2023		1.9000		78.0000
Arsenic, Total (Federal)	ug/L	AP-4A	11/09/2023	ND	1.0000		78.0000
Arsenic, Total (Federal)	ug/L	AP-4B	11/15/2023	ND	1.0000		78.0000
Arsenic, Total (Federal)	ug/L	AP-4I	11/09/2023	ND	1.0000		78.0000
Arsenic, Total (Federal)	ug/L	AP-5	11/09/2023	ND	1.0000		78.0000
Arsenic, Total (Federal)	ug/L	AP-5A	11/12/2023	ND	1.0000		78.0000
Arsenic, Total (Federal)	ug/L	AP-6A	11/12/2023	ND	1.0000		78.0000
Arsenic, Total (Federal)	ug/L	AP-6B	11/15/2023	ND	1.0000		78.0000
Arsenic, Total (Federal)	ug/L	AP-7	11/12/2023	ND	1.0000		78.0000
Arsenic, Total (Federal)	ug/L	AP-8	11/12/2023		6.0000		78.0000
Barium, Total (Federal)	ug/L	AP-1R	11/06/2023		68.4000		80.4000
Barium, Total (Federal)	ug/L	AP-2A	11/07/2023		54.0000		80.4000
Barium, Total (Federal)	ug/L	AP-2BO	11/07/2023		22.8000		80.4000
Barium, Total (Federal)	ug/L	AP-3	11/15/2023		34.0000		80.4000
Barium, Total (Federal)	ug/L	AP-3A	11/07/2023		33.3000		80.4000
Barium, Total (Federal)	ug/L	AP-4A	11/09/2023		28.4000		80.4000
Barium, Total (Federal)	ug/L	AP-4B	11/15/2023		105.0000	***	80.4000
Barium, Total (Federal)	ug/L	AP-4I	11/09/2023		22.4000		80.4000
Barium, Total (Federal)	ug/L	AP-5	11/09/2023		42.9000		80.4000
Barium, Total (Federal)	ug/L	AP-5A	11/12/2023		24.5000		80.4000
Barium, Total (Federal)	ug/L	AP-6A	11/12/2023		23.1000		80.4000

* - Current value failed - awaiting verification.
** - Current value passed - previous exceedance not verified.
*** - Current value failed - exceedance verified.
**** - Current value passed - awaiting one more verification.
***** - Insufficient background data to compute prediction limit.
ND = Not Detected, Result = detection limit.

Table C-2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Barium, Total (Federal)	ug/L	AP-6B	11/15/2023		26.4000		80.4000
Barium, Total (Federal)	ug/L	AP-7	11/12/2023		84.8000	***	80.4000
Barium, Total (Federal)	ug/L	AP-8	11/12/2023		20.3000		80.4000
Beryllium, Total (Federal)	ug/L	AP-1R	05/04/2023	ND	0.2000		1.0000
Beryllium, Total (Federal)	ug/L	AP-2A	05/04/2023	ND	0.2000		1.0000
Beryllium, Total (Federal)	ug/L	AP-2BO	05/04/2023	ND	0.2000		1.0000
Beryllium, Total (Federal)	ug/L	AP-3	05/03/2023	ND	0.2000		1.0000
Beryllium, Total (Federal)	ug/L	AP-3A	05/03/2023	ND	0.2000		1.0000
Beryllium, Total (Federal)	ug/L	AP-4A	05/03/2023	ND	0.2000		1.0000
Beryllium, Total (Federal)	ug/L	AP-4B	05/03/2023	ND	0.2000		1.0000
Beryllium, Total (Federal)	ug/L	AP-4I	05/03/2023	ND	0.2000		1.0000
Beryllium, Total (Federal)	ug/L	AP-5	05/03/2023	ND	0.2000		1.0000
Beryllium, Total (Federal)	ug/L	AP-5A	05/03/2023	ND	0.2000		1.0000
Beryllium, Total (Federal)	ug/L	AP-6A	05/04/2023	ND	0.2000		1.0000
Beryllium, Total (Federal)	ug/L	AP-6B	05/04/2023	ND	0.2000		1.0000
Beryllium, Total (Federal)	ug/L	AP-7	05/04/2023	ND	0.2000		1.0000
Beryllium, Total (Federal)	ug/L	AP-8	05/04/2023		4.7000	***	1.0000
Cadmium, Total (Federal)	ug/L	AP-1R	11/06/2023	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-2A	11/07/2023	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-2BO	11/07/2023	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-3	11/15/2023	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-3A	11/07/2023	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-4A	11/09/2023	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-4B	11/15/2023	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-4I	11/09/2023	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-5	11/09/2023	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-5A	11/12/2023	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-6A	11/12/2023	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-6B	11/15/2023	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-7	11/12/2023	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-8	11/12/2023		4.0000	***	2.0000
Chromium, Total (Federal)	ug/L	AP-1R	05/04/2023	ND	10.0000		10.0000
Chromium, Total (Federal)	ug/L	AP-2A	05/04/2023	ND	10.0000		10.0000
Chromium, Total (Federal)	ug/L	AP-2BO	05/04/2023	ND	10.0000		10.0000
Chromium, Total (Federal)	ug/L	AP-3	05/03/2023	ND	10.0000		10.0000
Chromium, Total (Federal)	ug/L	AP-3A	05/03/2023	ND	10.0000		10.0000
Chromium, Total (Federal)	ug/L	AP-4A	05/03/2023	ND	10.0000		10.0000
Chromium, Total (Federal)	ug/L	AP-4B	05/03/2023	ND	10.0000		10.0000
Chromium, Total (Federal)	ug/L	AP-4I	05/03/2023	ND	10.0000		10.0000

* - Current value failed - awaiting verification.
** - Current value passed - previous exceedance not verified.
*** - Current value failed - exceedance verified.
**** - Current value passed - awaiting one more verification.
***** - Insufficient background data to compute prediction limit.
ND = Not Detected, Result = detection limit.

Table C-2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Chromium, Total (Federal)	ug/L	AP-5	05/03/2023	ND	10.0000		10.0000
Chromium, Total (Federal)	ug/L	AP-5A	05/03/2023	ND	10.0000		10.0000
Chromium, Total (Federal)	ug/L	AP-6A	05/04/2023	ND	10.0000		10.0000
Chromium, Total (Federal)	ug/L	AP-6B	05/04/2023	ND	10.0000		10.0000
Chromium, Total (Federal)	ug/L	AP-7	05/04/2023	ND	10.0000		10.0000
Chromium, Total (Federal)	ug/L	AP-8	05/04/2023	ND	10.0000		10.0000
Cobalt, Total (Federal)	ug/L	AP-1R	11/06/2023	ND	1.0000		20.0000
Cobalt, Total (Federal)	ug/L	AP-2A	11/07/2023	ND	1.0000		20.0000
Cobalt, Total (Federal)	ug/L	AP-2BO	11/07/2023		3.0000		20.0000
Cobalt, Total (Federal)	ug/L	AP-3	11/15/2023	ND	1.0000		20.0000
Cobalt, Total (Federal)	ug/L	AP-3A	11/07/2023	ND	1.0000		20.0000
Cobalt, Total (Federal)	ug/L	AP-4A	11/09/2023	ND	1.0000		20.0000
Cobalt, Total (Federal)	ug/L	AP-4B	11/15/2023	ND	1.0000		20.0000
Cobalt, Total (Federal)	ug/L	AP-4I	11/09/2023		3.0000		20.0000
Cobalt, Total (Federal)	ug/L	AP-5	11/09/2023	ND	1.0000		20.0000
Cobalt, Total (Federal)	ug/L	AP-5A	11/12/2023	ND	1.0000		20.0000
Cobalt, Total (Federal)	ug/L	AP-6A	11/12/2023	ND	1.0000		20.0000
Cobalt, Total (Federal)	ug/L	AP-6B	11/15/2023	ND	1.0000		20.0000
Cobalt, Total (Federal)	ug/L	AP-7	11/12/2023	ND	1.0000		20.0000
Cobalt, Total (Federal)	ug/L	AP-8	11/12/2023		410.0000	***	20.0000
Fluoride (Federal)	mg/L	AP-1R	11/06/2023	ND	0.1000		5.0000
Fluoride (Federal)	mg/L	AP-2A	11/07/2023		0.1300		5.0000
Fluoride (Federal)	mg/L	AP-2BO	11/07/2023	ND	0.1000		5.0000
Fluoride (Federal)	mg/L	AP-3	11/15/2023	ND	0.1000		5.0000
Fluoride (Federal)	mg/L	AP-3A	11/07/2023	ND	0.1000		5.0000
Fluoride (Federal)	mg/L	AP-4A	11/09/2023	ND	0.1000		5.0000
Fluoride (Federal)	mg/L	AP-4B	11/15/2023	ND	0.1000		5.0000
Fluoride (Federal)	mg/L	AP-4I	11/09/2023		0.1600		5.0000
Fluoride (Federal)	mg/L	AP-5	11/09/2023	ND	0.1000		5.0000
Fluoride (Federal)	mg/L	AP-5A	11/12/2023	ND	0.1000		5.0000
Fluoride (Federal)	mg/L	AP-6A	11/12/2023	ND	0.1000		5.0000
Fluoride (Federal)	mg/L	AP-6B	11/15/2023	ND	0.1000		5.0000
Fluoride (Federal)	mg/L	AP-7	11/12/2023		0.1300		5.0000
Fluoride (Federal)	mg/L	AP-8	11/12/2023		0.7300		5.0000
Lead, Total (Federal)	ug/L	AP-1R	11/06/2023	ND	10.0000		47.8000
Lead, Total (Federal)	ug/L	AP-2A	11/07/2023	ND	10.0000		47.8000
Lead, Total (Federal)	ug/L	AP-2BO	11/07/2023	ND	10.0000		47.8000
Lead, Total (Federal)	ug/L	AP-3	11/15/2023	ND	10.0000		47.8000
Lead, Total (Federal)	ug/L	AP-3A	11/07/2023	ND	10.0000		47.8000

* - Current value failed - awaiting verification.
** - Current value passed - previous exceedance not verified.
*** - Current value failed - exceedance verified.
**** - Current value passed - awaiting one more verification.
***** - Insufficient background data to compute prediction limit.
ND = Not Detected, Result = detection limit.

Table C-2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Lead, Total (Federal)	ug/L	AP-4A	11/09/2023	ND	10.0000		47.8000
Lead, Total (Federal)	ug/L	AP-4B	11/15/2023	ND	10.0000		47.8000
Lead, Total (Federal)	ug/L	AP-4I	11/09/2023	ND	10.0000		47.8000
Lead, Total (Federal)	ug/L	AP-5	11/09/2023	ND	10.0000		47.8000
Lead, Total (Federal)	ug/L	AP-5A	11/12/2023	ND	10.0000		47.8000
Lead, Total (Federal)	ug/L	AP-6A	11/12/2023	ND	10.0000		47.8000
Lead, Total (Federal)	ug/L	AP-6B	11/15/2023	ND	10.0000		47.8000
Lead, Total (Federal)	ug/L	AP-7	11/12/2023	ND	10.0000		47.8000
Lead, Total (Federal)	ug/L	AP-8	11/12/2023	ND	10.0000		47.8000
Lithium, Total (Federal)	ug/L	AP-1R	11/06/2023	ND	20.0000		2710.3416
Lithium, Total (Federal)	ug/L	AP-2A	11/07/2023		69.6000		2710.3416
Lithium, Total (Federal)	ug/L	AP-2BO	11/07/2023	ND	20.0000		2710.3416
Lithium, Total (Federal)	ug/L	AP-3	11/15/2023	ND	20.0000		2710.3416
Lithium, Total (Federal)	ug/L	AP-3A	11/07/2023	ND	20.0000		2710.3416
Lithium, Total (Federal)	ug/L	AP-4A	11/09/2023		40.3000		2710.3416
Lithium, Total (Federal)	ug/L	AP-4B	11/15/2023	ND	20.0000		2710.3416
Lithium, Total (Federal)	ug/L	AP-4I	11/09/2023	ND	20.0000		2710.3416
Lithium, Total (Federal)	ug/L	AP-5	11/09/2023	ND	20.0000		2710.3416
Lithium, Total (Federal)	ug/L	AP-5A	11/12/2023	ND	20.0000		2710.3416
Lithium, Total (Federal)	ug/L	AP-6A	11/12/2023	ND	20.0000		2710.3416
Lithium, Total (Federal)	ug/L	AP-6B	11/15/2023	ND	20.0000		2710.3416
Lithium, Total (Federal)	ug/L	AP-7	11/12/2023	ND	20.0000		2710.3416
Lithium, Total (Federal)	ug/L	AP-8	11/12/2023		43.3000		2710.3416
Mercury, total (Federal)	ug/L	AP-1R	05/04/2023	ND	0.2000		0.3500
Mercury, total (Federal)	ug/L	AP-2A	05/04/2023	ND	0.2000		0.3500
Mercury, total (Federal)	ug/L	AP-2BO	05/04/2023	ND	0.2000		0.3500
Mercury, total (Federal)	ug/L	AP-3	05/03/2023	ND	0.2000		0.3500
Mercury, total (Federal)	ug/L	AP-3A	05/03/2023	ND	0.2000		0.3500
Mercury, total (Federal)	ug/L	AP-4A	05/03/2023	ND	0.2000		0.3500
Mercury, total (Federal)	ug/L	AP-4B	05/03/2023	ND	0.2000		0.3500
Mercury, total (Federal)	ug/L	AP-4I	05/03/2023	ND	0.2000		0.3500
Mercury, total (Federal)	ug/L	AP-5	05/03/2023	ND	0.2000		0.3500
Mercury, total (Federal)	ug/L	AP-5A	05/03/2023	ND	0.2000		0.3500
Mercury, total (Federal)	ug/L	AP-6A	05/04/2023	ND	0.2000		0.3500
Mercury, total (Federal)	ug/L	AP-6B	05/04/2023	ND	0.2000		0.3500
Mercury, total (Federal)	ug/L	AP-7	05/04/2023	ND	0.2000		0.3500
Mercury, total (Federal)	ug/L	AP-8	05/04/2023	ND	0.2000		0.3500
Molybdenum, Total (Federal)	ug/L	AP-1R	11/06/2023	ND	10.0000		660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	11/07/2023		779.0000	***	660.0000

* - Current value failed - awaiting verification.
** - Current value passed - previous exceedance not verified.
*** - Current value failed - exceedance verified.
**** - Current value passed - awaiting one more verification.
***** - Insufficient background data to compute prediction limit.
ND = Not Detected, Result = detection limit.

Table C-2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Molybdenum, Total (Federal)	ug/L	AP-2BO	11/07/2023		454.0000		660.0000
Molybdenum, Total (Federal)	ug/L	AP-3	11/15/2023	ND	10.0000		660.0000
Molybdenum, Total (Federal)	ug/L	AP-3A	11/07/2023		543.0000		660.0000
Molybdenum, Total (Federal)	ug/L	AP-4A	11/09/2023		252.0000		660.0000
Molybdenum, Total (Federal)	ug/L	AP-4B	11/15/2023	ND	10.0000		660.0000
Molybdenum, Total (Federal)	ug/L	AP-4I	11/09/2023		78.1000		660.0000
Molybdenum, Total (Federal)	ug/L	AP-5	11/09/2023		65.6000		660.0000
Molybdenum, Total (Federal)	ug/L	AP-5A	11/12/2023		310.0000		660.0000
Molybdenum, Total (Federal)	ug/L	AP-6A	11/12/2023	ND	10.0000		660.0000
Molybdenum, Total (Federal)	ug/L	AP-6B	11/15/2023	ND	10.0000		660.0000
Molybdenum, Total (Federal)	ug/L	AP-7	11/12/2023	ND	10.0000		660.0000
Molybdenum, Total (Federal)	ug/L	AP-8	11/12/2023	ND	10.0000		660.0000
Selenium, Total (Federal)	ug/L	AP-1R	11/06/2023	ND	1.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-2A	11/07/2023		2.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-2BO	11/07/2023	ND	1.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-3	11/15/2023		3.1000		5.9000
Selenium, Total (Federal)	ug/L	AP-3A	11/07/2023	ND	1.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-4A	11/09/2023	ND	1.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-4B	11/15/2023		14.0000	***	5.9000
Selenium, Total (Federal)	ug/L	AP-4I	11/09/2023	ND	1.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-5	11/09/2023		2.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-5A	11/12/2023	ND	1.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-6A	11/12/2023	ND	1.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	11/15/2023		6.0000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-7	11/12/2023	ND	1.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-8	11/12/2023	ND	1.0000		5.9000
Thallium, Total (Federal)	ug/L	AP-1R	11/06/2023	ND	1.0000		2.3000
Thallium, Total (Federal)	ug/L	AP-2A	11/07/2023	ND	1.0000		2.3000
Thallium, Total (Federal)	ug/L	AP-2BO	11/07/2023	ND	1.0000		2.3000
Thallium, Total (Federal)	ug/L	AP-3	05/03/2023	ND	1.0000		2.3000
Thallium, Total (Federal)	ug/L	AP-3A	11/07/2023	ND	1.0000		2.3000
Thallium, Total (Federal)	ug/L	AP-4A	11/09/2023	ND	1.0000		2.3000
Thallium, Total (Federal)	ug/L	AP-4B	05/03/2023	ND	1.0000		2.3000
Thallium, Total (Federal)	ug/L	AP-4I	11/09/2023	ND	1.0000		2.3000
Thallium, Total (Federal)	ug/L	AP-5	11/09/2023	ND	1.0000		2.3000
Thallium, Total (Federal)	ug/L	AP-5A	11/12/2023	ND	1.0000		2.3000
Thallium, Total (Federal)	ug/L	AP-6A	11/12/2023	ND	1.0000		2.3000
Thallium, Total (Federal)	ug/L	AP-6B	05/04/2023	ND	1.0000		2.3000
Thallium, Total (Federal)	ug/L	AP-7	11/12/2023	ND	1.0000		2.3000

* - Current value failed - awaiting verification.
** - Current value passed - previous exceedance not verified.
*** - Current value failed - exceedance verified.
**** - Current value passed - awaiting one more verification.
***** - Insufficient background data to compute prediction limit.
ND = Not Detected, Result = detection limit.

Table C-2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Thallium, Total (Federal)	ug/L	AP-8	11/12/2023	ND	1.0000		2.3000
Total Radium (Federal)	pCi/L	AP-1R	11/06/2023		0.9300		3.7428
Total Radium (Federal)	pCi/L	AP-2A	11/07/2023		2.6400		3.7428
Total Radium (Federal)	pCi/L	AP-2BO	11/07/2023		1.5800		3.7428
Total Radium (Federal)	pCi/L	AP-3	11/15/2023		1.0700		3.7428
Total Radium (Federal)	pCi/L	AP-3A	11/07/2023		1.1800		3.7428
Total Radium (Federal)	pCi/L	AP-4A	11/09/2023	ND	1.3000		3.7428
Total Radium (Federal)	pCi/L	AP-4B	11/15/2023	ND	1.7000		3.7428
Total Radium (Federal)	pCi/L	AP-4I	11/09/2023		0.6850		3.7428
Total Radium (Federal)	pCi/L	AP-5	11/09/2023		0.8430		3.7428
Total Radium (Federal)	pCi/L	AP-5A	11/12/2023	ND	2.0200		3.7428
Total Radium (Federal)	pCi/L	AP-6A	11/12/2023	ND	1.9300		3.7428
Total Radium (Federal)	pCi/L	AP-6B	11/15/2023		1.3100		3.7428
Total Radium (Federal)	pCi/L	AP-7	11/12/2023		1.7900		3.7428
Total Radium (Federal)	pCi/L	AP-8	11/12/2023	ND	1.7700		3.7428

* - Current value failed - awaiting verification.
** - Current value passed - previous exceedance not verified.
*** - Current value failed - exceedance verified.
**** - Current value passed - awaiting one more verification.
***** - Insufficient background data to compute prediction limit.
ND = Not Detected, Result = detection limit.

Table C-3

Detection Frequencies in Upgradient and Downgradient Wells

Constituent	Detect	Upgradient N	Proportion	Detect	Downgradient N	Proportion
Antimony, Total (Federal)	1	63	0.016	8	280	0.029
Arsenic, Total (Federal)	28	66	0.424	97	294	0.330
Barium, Total (Federal)	66	66	1.000	293	294	0.997
Beryllium, Total (Federal)	0	63	0.000	12	280	0.043
Cadmium, Total (Federal)	2	63	0.032	22	294	0.075
Chromium, Total (Federal)	0	54	0.000	2	224	0.009
Cobalt, Total (Federal)	26	66	0.394	59	294	0.201
Fluoride (Federal)	16	66	0.242	70	294	0.238
Lead, Total (Federal)	1	63	0.016	7	280	0.025
Lithium, Total (Federal)	66	66	1.000	68	294	0.231
Mercury, total (Federal)	1	51	0.020	2	210	0.010
Molybdenum, Total (Federal)	32	66	0.485	156	294	0.531
Selenium, Total (Federal)	4	66	0.061	58	294	0.197
Thallium, Total (Federal)	1	63	0.016	0	277	0.000
Total Radium (Federal)	50	61	0.820	227	293	0.775

N = Total number of measurements in all wells.
Detect = Total number of detections in all wells.
Proportion = Detect/N.

Table C-4

Shapiro-Wilk Multiple Group Test of Normality

Constituent	Detect	N	Detect Freq	G raw	G log	G cbrt	G sqrt	G sqr	G cub	Crit Value	Dist Form	Model Type
Antimony, Total (Federal)	1	63	0.016	22.192	22.192					2.326	non-norm	nonpar
Arsenic, Total (Federal)	28	66	0.424	12.092	8.783					2.326	non-norm	nonpar
Barium, Total (Federal)	66	66	1.000	4.785	3.856					2.326	non-norm	nonpar
Beryllium, Total (Federal)	0	63	0.000	9.130	9.130					2.326	non-norm	nonpar
Cadmium, Total (Federal)	2	63	0.032	10.814	10.903					2.326	non-norm	nonpar
Chromium, Total (Federal)	0	54	0.000	8.417	8.417					2.326	non-norm	nonpar
Cobalt, Total (Federal)	26	66	0.394	9.090	8.650					2.326	non-norm	nonpar
Fluoride (Federal)	16	66	0.242	11.455	11.146					2.326	non-norm	nonpar
Lead, Total (Federal)	1	63	0.016	22.192	22.192					2.326	non-norm	nonpar
Lithium, Total (Federal)	66	66	1.000	0.255	0.453					2.326	normal	normal
Mercury, total (Federal)	1	51	0.020	8.171	8.171					2.326	non-norm	nonpar
Molybdenum, Total (Federal)	32	66	0.485	8.783	8.566					2.326	non-norm	nonpar
Selenium, Total (Federal)	4	66	0.061	21.445	21.054					2.326	non-norm	nonpar
Thallium, Total (Federal)	1	63	0.016	9.130	9.130					2.326	non-norm	nonpar
Total Radium (Federal)	50	61	0.820	4.995	1.812					2.326	lognor	lognor

* - Distribution override for that constituent.
Fit to distribution is confirmed if G <= critical value.
Model type may not match distributional form when detection frequency < 50%.

Table C-5

Summary Statistics and Prediction Limits

Constituent	Units	Detect	N	Mean	SD	alpha	Factor	Pred Limit	Type		Conf
Antimony, Total (Federal)	ug/L	1	63					1.4000	nonpar	***	0.99
Arsenic, Total (Federal)	ug/L	28	66					78.0000	nonpar		0.99
Barium, Total (Federal)	ug/L	66	66					80.4000	nonpar		0.99
Beryllium, Total (Federal)	ug/L	0	63					1.0000	nonpar	***	0.99
Cadmium, Total (Federal)	ug/L	2	63					2.0000	nonpar	***	0.99
Chromium, Total (Federal)	ug/L	0	54					10.0000	nonpar	***	0.99
Cobalt, Total (Federal)	ug/L	26	66					20.0000	nonpar	***	0.99
Fluoride (Federal)	mg/L	16	66					5.0000	nonpar	***	0.99
Lead, Total (Federal)	ug/L	1	63					47.8000	nonpar		0.99
Lithium, Total (Federal)	ug/L	66	66	990.7576	715.5771	0.0100	2.4031	2710.3416	normal		
Mercury, total (Federal)	ug/L	1	51					0.3500	nonpar		0.99
Molybdenum, Total (Federal)	ug/L	32	66					660.0000	nonpar		0.99
Selenium, Total (Federal)	ug/L	4	66					5.9000	nonpar		0.99
Thallium, Total (Federal)	ug/L	1	63					2.3000	nonpar		0.99
Total Radium (Federal)	pCi/L	50	61	0.3010	0.4228	0.0100	2.4096	3.7428	lognor		

Conf = confidence level for passing initial test or one verification resample at all downgradient wells for a single constituent (nonparametric test only).
* - Insufficient Data.
** - Calculated limit raised to Manual Reporting Limit.
*** - Nonparametric limit based on ND value.
For transformed data, mean and SD in transformed units and prediction limit in original units.
All sample sizes and statistics are based on outlier free data.
For nonparametric limits, median reporting limits are substituted for extreme reporting limit values.

Table C-6

Dixon's Test Outliers
1% Significance Level

Constituent	Units	Well	Date	Result	ND Qualifier	Date Range	N	Critical Value

N = Total number of independent measurements in background at each well.
Date Range = Dates of the first and last measurements included in background at each well.
Critical Value depends on the significance level and on N-1 when the two most extreme values are tested or N for the most extreme value.

Table C-7

Historical Downgradient Data for Constituent-Well Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

Constituent	Units	Well	Date		Result		Pred. Limit
Arsenic, Total (Federal)	ug/L	AP-2A	09/28/2016		2.1000		78.0000
Arsenic, Total (Federal)	ug/L	AP-2A	10/19/2016	ND	10.0000		78.0000
Arsenic, Total (Federal)	ug/L	AP-2A	11/09/2016		9.2000		78.0000
Arsenic, Total (Federal)	ug/L	AP-2A	12/12/2016	ND	5.0000		78.0000
Arsenic, Total (Federal)	ug/L	AP-2A	02/05/2017	ND	10.0000		78.0000
Arsenic, Total (Federal)	ug/L	AP-2A	03/24/2017	ND	10.0000		78.0000
Arsenic, Total (Federal)	ug/L	AP-2A	05/24/2017	ND	10.0000		78.0000
Arsenic, Total (Federal)	ug/L	AP-2A	06/21/2017	ND	10.0000		78.0000
Arsenic, Total (Federal)	ug/L	AP-2A	08/10/2017	ND	10.0000		78.0000
Arsenic, Total (Federal)	ug/L	AP-2A	05/09/2018		52.0000		78.0000
Arsenic, Total (Federal)	ug/L	AP-2A	09/30/2018		44.0000		78.0000
Arsenic, Total (Federal)	ug/L	AP-2A	05/15/2019		3.8000		78.0000
Arsenic, Total (Federal)	ug/L	AP-2A	11/05/2019		5.6000		78.0000
Arsenic, Total (Federal)	ug/L	AP-2A	05/11/2020		6.5000		78.0000
Arsenic, Total (Federal)	ug/L	AP-2A	11/09/2020		4.6000		78.0000
Arsenic, Total (Federal)	ug/L	AP-2A	05/08/2021		2.7000		78.0000
Arsenic, Total (Federal)	ug/L	AP-2A	11/04/2021		3.6000		78.0000
Arsenic, Total (Federal)	ug/L	AP-2A	05/12/2022		16.0000		78.0000
Arsenic, Total (Federal)	ug/L	AP-2A	11/02/2022		23.0000		78.0000
Arsenic, Total (Federal)	ug/L	AP-2A	05/04/2023		142.0000	*	78.0000
Arsenic, Total (Federal)	ug/L	AP-2A	11/07/2023		1580.0000	*	78.0000
Barium, Total (Federal)	ug/L	AP-4B	09/29/2016		62.0000		80.4000
Barium, Total (Federal)	ug/L	AP-4B	10/18/2016		56.0000		80.4000
Barium, Total (Federal)	ug/L	AP-4B	11/08/2016		61.0000		80.4000
Barium, Total (Federal)	ug/L	AP-4B	12/13/2016		45.0000		80.4000
Barium, Total (Federal)	ug/L	AP-4B	02/04/2017		78.0000		80.4000
Barium, Total (Federal)	ug/L	AP-4B	03/23/2017		63.0000		80.4000
Barium, Total (Federal)	ug/L	AP-4B	05/24/2017		53.0000		80.4000
Barium, Total (Federal)	ug/L	AP-4B	06/21/2017		51.0000		80.4000
Barium, Total (Federal)	ug/L	AP-4B	08/09/2017		74.0000		80.4000
Barium, Total (Federal)	ug/L	AP-4B	05/08/2018		81.0000	*	80.4000
Barium, Total (Federal)	ug/L	AP-4B	09/30/2018		44.0000		80.4000
Barium, Total (Federal)	ug/L	AP-4B	05/14/2019		87.5000	*	80.4000
Barium, Total (Federal)	ug/L	AP-4B	11/04/2019		68.5000		80.4000
Barium, Total (Federal)	ug/L	AP-4B	05/07/2020		107.0000	*	80.4000
Barium, Total (Federal)	ug/L	AP-4B	11/07/2020		70.8000		80.4000
Barium, Total (Federal)	ug/L	AP-4B	05/10/2021		100.0000	*	80.4000
Barium, Total (Federal)	ug/L	AP-4B	11/07/2021		108.0000	*	80.4000

* - Significantly increased over background.
** - Detect at limit for 100% NDs in background (NPPL only).
*** - Manual exclusion.
ND = Not Detected, Result = detection limit.

Table C-7

Historical Downgradient Data for Constituent-Well Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

Constituent	Units	Well	Date		Result		Pred. Limit
Barium, Total (Federal)	ug/L	AP-4B	05/15/2022		97.5000	*	80.4000
Barium, Total (Federal)	ug/L	AP-4B	11/03/2022		120.0000	*	80.4000
Barium, Total (Federal)	ug/L	AP-4B	05/03/2023		99.9000	*	80.4000
Barium, Total (Federal)	ug/L	AP-4B	11/15/2023		105.0000	*	80.4000
Barium, Total (Federal)	ug/L	AP-7	09/28/2016		49.0000		80.4000
Barium, Total (Federal)	ug/L	AP-7	10/19/2016		56.0000		80.4000
Barium, Total (Federal)	ug/L	AP-7	11/09/2016		54.0000		80.4000
Barium, Total (Federal)	ug/L	AP-7	12/12/2016		45.0000		80.4000
Barium, Total (Federal)	ug/L	AP-7	02/05/2017		53.0000		80.4000
Barium, Total (Federal)	ug/L	AP-7	03/25/2017		47.0000		80.4000
Barium, Total (Federal)	ug/L	AP-7	05/24/2017		52.0000		80.4000
Barium, Total (Federal)	ug/L	AP-7	06/21/2017		47.0000		80.4000
Barium, Total (Federal)	ug/L	AP-7	08/08/2017		50.0000		80.4000
Barium, Total (Federal)	ug/L	AP-7	05/09/2018		56.0000		80.4000
Barium, Total (Federal)	ug/L	AP-7	09/30/2018		48.0000		80.4000
Barium, Total (Federal)	ug/L	AP-7	05/15/2019		69.2000		80.4000
Barium, Total (Federal)	ug/L	AP-7	11/05/2019		53.4000		80.4000
Barium, Total (Federal)	ug/L	AP-7	05/12/2020		66.8000		80.4000
Barium, Total (Federal)	ug/L	AP-7	11/05/2020		67.8000		80.4000
Barium, Total (Federal)	ug/L	AP-7	05/08/2021		79.5000		80.4000
Barium, Total (Federal)	ug/L	AP-7	11/03/2021		81.2000	*	80.4000
Barium, Total (Federal)	ug/L	AP-7	05/12/2022		82.2000	*	80.4000
Barium, Total (Federal)	ug/L	AP-7	11/03/2022		76.8000		80.4000
Barium, Total (Federal)	ug/L	AP-7	05/04/2023		101.0000	*	80.4000
Barium, Total (Federal)	ug/L	AP-7	11/12/2023		84.8000	*	80.4000
Beryllium, Total (Federal)	ug/L	AP-8	09/28/2016	ND	10.0000		1.0000
Beryllium, Total (Federal)	ug/L	AP-8	10/19/2016	ND	10.0000		1.0000
Beryllium, Total (Federal)	ug/L	AP-8	11/09/2016	ND	10.0000		1.0000
Beryllium, Total (Federal)	ug/L	AP-8	12/12/2016	ND	10.0000		1.0000
Beryllium, Total (Federal)	ug/L	AP-8	02/05/2017	ND	4.0000		1.0000
Beryllium, Total (Federal)	ug/L	AP-8	03/25/2017	ND	4.0000		1.0000
Beryllium, Total (Federal)	ug/L	AP-8	05/24/2017	ND	2.0000		1.0000
Beryllium, Total (Federal)	ug/L	AP-8	06/20/2017		2.1000	*	1.0000
Beryllium, Total (Federal)	ug/L	AP-8	08/08/2017		2.4000	*	1.0000
Beryllium, Total (Federal)	ug/L	AP-8	05/09/2018	ND	5.0000		1.0000
Beryllium, Total (Federal)	ug/L	AP-8	09/30/2018		3.5000	*	1.0000
Beryllium, Total (Federal)	ug/L	AP-8	05/15/2019		1.9000	*	1.0000
Beryllium, Total (Federal)	ug/L	AP-8	11/04/2019		2.0000	*	1.0000

* - Significantly increased over background.
** - Detect at limit for 100% NDs in background (NPPL only).
*** - Manual exclusion.
ND = Not Detected, Result = detection limit.

Table C-7

Historical Downgradient Data for Constituent-Well Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

Constituent	Units	Well	Date		Result		Pred. Limit
Beryllium, Total (Federal)	ug/L	AP-8	05/11/2020		1.5000	*	1.0000
Beryllium, Total (Federal)	ug/L	AP-8	11/05/2020		2.2000	*	1.0000
Beryllium, Total (Federal)	ug/L	AP-8	05/07/2021		6.5000	*	1.0000
Beryllium, Total (Federal)	ug/L	AP-8	12/09/2021		1.8000	*	1.0000
Beryllium, Total (Federal)	ug/L	AP-8	05/12/2022		4.2000	*	1.0000
Beryllium, Total (Federal)	ug/L	AP-8	11/03/2022		6.8000	*	1.0000
Beryllium, Total (Federal)	ug/L	AP-8	05/04/2023		4.7000	*	1.0000
Cadmium, Total (Federal)	ug/L	AP-8	09/28/2016		16.0000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	10/19/2016		13.0000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	11/09/2016		12.0000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	12/12/2016		18.0000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	02/05/2017		15.0000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	03/25/2017		9.1000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	05/24/2017		6.8000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	06/20/2017		9.9000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	08/08/2017		11.0000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	05/09/2018		6.3000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	09/30/2018		14.0000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	05/15/2019		7.0000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	11/04/2019		8.6000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	05/11/2020		6.2000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	11/05/2020		6.7000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	05/07/2021		10.5000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	12/09/2021		4.2000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	05/12/2022		15.4000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	11/03/2022		24.0000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	05/04/2023		17.2000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	11/12/2023		4.0000	*	2.0000
Cobalt, Total (Federal)	ug/L	AP-8	09/28/2016		440.0000	*	20.0000
Cobalt, Total (Federal)	ug/L	AP-8	10/19/2016		370.0000	*	20.0000
Cobalt, Total (Federal)	ug/L	AP-8	11/09/2016		410.0000	*	20.0000
Cobalt, Total (Federal)	ug/L	AP-8	12/12/2016		500.0000	*	20.0000
Cobalt, Total (Federal)	ug/L	AP-8	02/05/2017		500.0000	*	20.0000
Cobalt, Total (Federal)	ug/L	AP-8	03/25/2017		350.0000	*	20.0000
Cobalt, Total (Federal)	ug/L	AP-8	05/24/2017		290.0000	*	20.0000
Cobalt, Total (Federal)	ug/L	AP-8	06/20/2017		400.0000	*	20.0000
Cobalt, Total (Federal)	ug/L	AP-8	08/08/2017		410.0000	*	20.0000
Cobalt, Total (Federal)	ug/L	AP-8	05/09/2018		260.0000	*	20.0000

* - Significantly increased over background.
** - Detect at limit for 100% NDs in background (NPPL only).
*** - Manual exclusion.
ND = Not Detected, Result = detection limit.

Table C-7

Historical Downgradient Data for Constituent-Well Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

Constituent	Units	Well	Date		Result		Pred. Limit
Cobalt, Total (Federal)	ug/L	AP-8	09/30/2018		450.0000	*	20.0000
Cobalt, Total (Federal)	ug/L	AP-8	05/15/2019		295.0000	*	20.0000
Cobalt, Total (Federal)	ug/L	AP-8	11/04/2019		364.0000	*	20.0000
Cobalt, Total (Federal)	ug/L	AP-8	05/11/2020		258.0000	*	20.0000
Cobalt, Total (Federal)	ug/L	AP-8	11/05/2020		372.0000	*	20.0000
Cobalt, Total (Federal)	ug/L	AP-8	05/07/2021		677.0000	*	20.0000
Cobalt, Total (Federal)	ug/L	AP-8	12/09/2021		319.0000	*	20.0000
Cobalt, Total (Federal)	ug/L	AP-8	05/12/2022		663.0000	*	20.0000
Cobalt, Total (Federal)	ug/L	AP-8	11/03/2022		901.0000	*	20.0000
Cobalt, Total (Federal)	ug/L	AP-8	05/04/2023		771.0000	*	20.0000
Cobalt, Total (Federal)	ug/L	AP-8	11/12/2023		410.0000	*	20.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	09/28/2016		2600.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	10/19/2016		2700.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	11/09/2016		2700.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	12/12/2016		2100.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	02/05/2017		3000.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	03/24/2017		2700.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	05/24/2017		2900.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	06/21/2017		2800.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	08/10/2017		2800.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	05/09/2018		2100.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	09/30/2018		2300.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	05/15/2019		2200.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	11/05/2019		2600.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	05/11/2020		2650.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	11/09/2020		2430.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	05/08/2021		1920.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	11/04/2021		1790.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	05/12/2022		1570.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	11/02/2022		1320.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	05/04/2023		1120.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	11/07/2023		779.0000	*	660.0000
Selenium, Total (Federal)	ug/L	AP-4B	09/29/2016		10.0000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	10/18/2016		11.0000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	11/08/2016		6.8000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	12/13/2016		6.4000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	02/04/2017	ND	30.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-4B	03/23/2017		7.4000	*	5.9000

* - Significantly increased over background.
** - Detect at limit for 100% NDs in background (NPPL only).
*** - Manual exclusion.
ND = Not Detected, Result = detection limit.

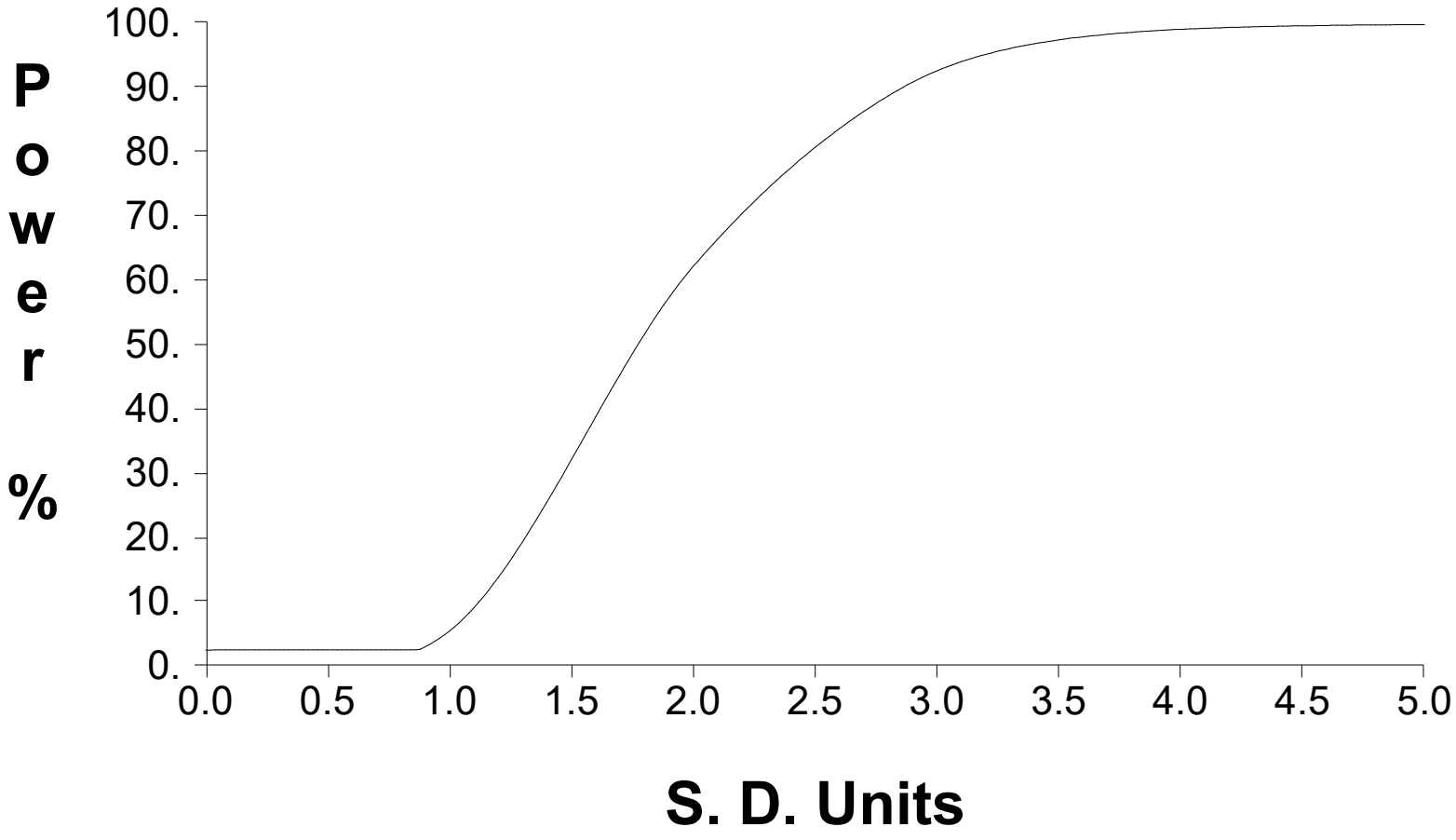
Table C-7

Historical Downgradient Data for Constituent-Well Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

Constituent	Units	Well	Date		Result		Pred. Limit
Selenium, Total (Federal)	ug/L	AP-4B	05/24/2017		8.2000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	06/21/2017		7.1000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	08/09/2017		6.3000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	05/08/2018		9.1000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	09/30/2018		6.2000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	05/14/2019		9.7000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	11/04/2019		9.2000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	05/07/2020		7.2000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	11/07/2020		6.6000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	05/10/2021		16.7000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	11/07/2021		9.2000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	05/15/2022		14.4000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	11/03/2022		14.0000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	05/03/2023		13.5000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	11/15/2023		14.0000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-6B	09/29/2016		1.8000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	10/18/2016	ND	10.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	11/08/2016	ND	20.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	12/13/2016	ND	5.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	02/04/2017	ND	30.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	03/23/2017	ND	20.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	05/23/2017	ND	5.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	06/21/2017	ND	5.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	08/09/2017	ND	5.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	05/08/2018	ND	5.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	10/01/2018	ND	0.9000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	05/14/2019	ND	1.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	11/04/2019		1.2000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	05/07/2020		1.2000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	11/07/2020	ND	1.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	05/10/2021	ND	1.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	11/07/2021		1.3000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	05/15/2022		3.1000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	11/30/2022		4.3000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	05/04/2023		3.1000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	11/15/2023		6.0000	*	5.9000

* - Significantly increased over background.
** - Detect at limit for 100% NDs in background (NPPL only).
*** - Manual exclusion.
ND = Not Detected, Result = detection limit.

False Positive and False Negative Rates for Current Upgradient vs. Downgradient Monitoring Program



May-June 2024

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Antimony, Total (Federal)	ug/L	MW-2R	09/28/2016	ND	0.0500	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	10/19/2016	ND	50.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	11/09/2016	ND	50.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	12/12/2016	ND	5.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	03/16/2017	ND	6.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	03/17/2017	ND	6.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	03/24/2017	ND	24.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	04/20/2017	ND	6.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	04/24/2017	ND	6.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	05/16/2017	ND	6.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	06/20/2017	ND	6.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	08/08/2017	ND	6.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	05/09/2018	ND	5.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	09/12/2018	ND	1.4000		
Antimony, Total (Federal)	ug/L	MW-2R	05/16/2019	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	11/06/2019	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	05/13/2020	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	11/03/2020	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	05/05/2021	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	11/01/2021	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	05/08/2022	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	11/07/2022	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	05/09/2023	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-2R	05/02/2024	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	09/28/2016	ND	0.0500	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	10/19/2016	ND	50.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	11/09/2016	ND	50.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	12/12/2016	ND	5.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	02/05/2017	ND	6.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	03/24/2017	ND	24.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	05/25/2017	ND	6.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	06/20/2017	ND	6.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	08/08/2017	ND	6.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	05/09/2018	ND	5.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	09/12/2018	ND	1.4000		
Antimony, Total (Federal)	ug/L	MW-3	05/16/2019	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	11/06/2019	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	05/13/2020	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	11/03/2020	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	05/05/2021	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	11/01/2021	ND	1.0000	1.4000	**

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Antimony, Total (Federal)	ug/L	MW-3	05/08/2022	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	11/07/2022	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	05/07/2023	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-3	05/12/2024		2.1000		
Antimony, Total (Federal)	ug/L	MW-4C	09/28/2016		0.2300		
Antimony, Total (Federal)	ug/L	MW-4C	10/19/2016	ND	50.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	11/09/2016	ND	50.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	12/12/2016	ND	5.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	02/05/2017	ND	6.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	03/25/2017	ND	24.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	05/25/2017	ND	6.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	06/20/2017	ND	6.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	08/08/2017	ND	6.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	05/09/2018	ND	5.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	09/12/2018	ND	1.4000		
Antimony, Total (Federal)	ug/L	MW-4C	05/16/2019	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	11/06/2019	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	05/13/2020	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	11/03/2020	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	05/05/2021	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	11/01/2021	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	05/08/2022	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	11/08/2022	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	05/09/2023	ND	1.0000	1.4000	**
Antimony, Total (Federal)	ug/L	MW-4C	05/12/2024	ND	1.0000	1.4000	**
Arsenic, Total (Federal)	ug/L	MW-2R	09/28/2016		4.3000		
Arsenic, Total (Federal)	ug/L	MW-2R	10/19/2016	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-2R	11/09/2016		6.4000		
Arsenic, Total (Federal)	ug/L	MW-2R	12/12/2016	ND	5.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-2R	03/16/2017	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-2R	03/17/2017	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-2R	03/24/2017	ND	40.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-2R	04/20/2017	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-2R	04/24/2017	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-2R	05/16/2017	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-2R	06/20/2017	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-2R	08/08/2017	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-2R	05/09/2018		31.0000		
Arsenic, Total (Federal)	ug/L	MW-2R	09/12/2018		11.0000		
Arsenic, Total (Federal)	ug/L	MW-2R	05/16/2019		8.3000		
Arsenic, Total (Federal)	ug/L	MW-2R	11/06/2019		10.5000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Arsenic, Total (Federal)	ug/L	MW-2R	05/13/2020		14.7000		
Arsenic, Total (Federal)	ug/L	MW-2R	11/03/2020		8.9000		
Arsenic, Total (Federal)	ug/L	MW-2R	05/05/2021		6.2000		
Arsenic, Total (Federal)	ug/L	MW-2R	11/01/2021		9.9000		
Arsenic, Total (Federal)	ug/L	MW-2R	05/08/2022		16.3000		
Arsenic, Total (Federal)	ug/L	MW-2R	11/07/2022		10.0000		
Arsenic, Total (Federal)	ug/L	MW-2R	05/09/2023		78.0000		
Arsenic, Total (Federal)	ug/L	MW-2R	11/08/2023		7.5000		
Arsenic, Total (Federal)	ug/L	MW-2R	05/02/2024		10.8000		
Arsenic, Total (Federal)	ug/L	MW-3	09/28/2016		4.0000		
Arsenic, Total (Federal)	ug/L	MW-3	10/19/2016	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-3	11/09/2016		7.4000		
Arsenic, Total (Federal)	ug/L	MW-3	12/12/2016	ND	5.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-3	02/05/2017	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-3	03/24/2017	ND	40.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-3	05/25/2017	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-3	06/20/2017	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-3	08/08/2017	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-3	05/09/2018	ND	5.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-3	09/12/2018	ND	5.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-3	05/16/2019		12.9000		
Arsenic, Total (Federal)	ug/L	MW-3	11/06/2019		10.3000		
Arsenic, Total (Federal)	ug/L	MW-3	05/13/2020		16.2000		
Arsenic, Total (Federal)	ug/L	MW-3	11/03/2020		20.5000		
Arsenic, Total (Federal)	ug/L	MW-3	05/05/2021		17.0000		
Arsenic, Total (Federal)	ug/L	MW-3	11/01/2021		17.9000		
Arsenic, Total (Federal)	ug/L	MW-3	05/08/2022		14.8000		
Arsenic, Total (Federal)	ug/L	MW-3	11/07/2022		17.3000		
Arsenic, Total (Federal)	ug/L	MW-3	05/07/2023		32.3000		
Arsenic, Total (Federal)	ug/L	MW-3	11/08/2023		59.3000		
Arsenic, Total (Federal)	ug/L	MW-3	05/12/2024		234.0000		
Arsenic, Total (Federal)	ug/L	MW-4C	09/28/2016		2.4000		
Arsenic, Total (Federal)	ug/L	MW-4C	10/19/2016	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-4C	11/09/2016		4.9000		
Arsenic, Total (Federal)	ug/L	MW-4C	12/12/2016	ND	5.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-4C	02/05/2017	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-4C	03/25/2017	ND	40.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-4C	05/25/2017	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-4C	06/20/2017	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-4C	08/08/2017	ND	10.0000		
Arsenic, Total (Federal)	ug/L	MW-4C	05/09/2018	ND	5.0000	10.0000	**

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Arsenic, Total (Federal)	ug/L	MW-4C	09/12/2018	ND	1.2000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-4C	05/16/2019	ND	1.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-4C	11/06/2019	ND	1.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-4C	05/13/2020	ND	1.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-4C	11/03/2020	ND	1.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-4C	05/05/2021	ND	1.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-4C	11/01/2021	ND	1.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-4C	05/08/2022	ND	1.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-4C	11/08/2022	ND	1.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-4C	05/09/2023	ND	1.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-4C	11/08/2023	ND	1.0000	10.0000	**
Arsenic, Total (Federal)	ug/L	MW-4C	05/12/2024	ND	1.0000	10.0000	**
Barium, Total (Federal)	ug/L	MW-2R	09/28/2016		43.0000		
Barium, Total (Federal)	ug/L	MW-2R	10/19/2016		37.0000		
Barium, Total (Federal)	ug/L	MW-2R	11/09/2016		37.0000		
Barium, Total (Federal)	ug/L	MW-2R	12/12/2016		29.0000		
Barium, Total (Federal)	ug/L	MW-2R	03/16/2017		53.0000		
Barium, Total (Federal)	ug/L	MW-2R	03/17/2017		66.0000		
Barium, Total (Federal)	ug/L	MW-2R	03/24/2017		54.0000		
Barium, Total (Federal)	ug/L	MW-2R	04/20/2017		46.0000		
Barium, Total (Federal)	ug/L	MW-2R	04/24/2017		56.0000		
Barium, Total (Federal)	ug/L	MW-2R	05/16/2017		46.0000		
Barium, Total (Federal)	ug/L	MW-2R	06/20/2017		45.0000		
Barium, Total (Federal)	ug/L	MW-2R	08/08/2017		42.0000		
Barium, Total (Federal)	ug/L	MW-2R	05/09/2018		73.0000		
Barium, Total (Federal)	ug/L	MW-2R	09/12/2018		44.0000		
Barium, Total (Federal)	ug/L	MW-2R	05/16/2019		35.5000		
Barium, Total (Federal)	ug/L	MW-2R	11/06/2019		39.0000		
Barium, Total (Federal)	ug/L	MW-2R	05/13/2020		42.5000		
Barium, Total (Federal)	ug/L	MW-2R	11/03/2020		45.0000		
Barium, Total (Federal)	ug/L	MW-2R	05/05/2021		44.6000		
Barium, Total (Federal)	ug/L	MW-2R	11/01/2021		54.0000		
Barium, Total (Federal)	ug/L	MW-2R	05/08/2022		45.2000		
Barium, Total (Federal)	ug/L	MW-2R	11/07/2022		48.6000		
Barium, Total (Federal)	ug/L	MW-2R	05/09/2023		80.4000		
Barium, Total (Federal)	ug/L	MW-2R	11/08/2023		45.2000		
Barium, Total (Federal)	ug/L	MW-2R	05/02/2024		53.6000		
Barium, Total (Federal)	ug/L	MW-3	09/28/2016		32.0000		
Barium, Total (Federal)	ug/L	MW-3	10/19/2016		31.0000		
Barium, Total (Federal)	ug/L	MW-3	11/09/2016		36.0000		
Barium, Total (Federal)	ug/L	MW-3	12/12/2016		29.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Barium, Total (Federal)	ug/L	MW-3	02/05/2017		37.0000		
Barium, Total (Federal)	ug/L	MW-3	03/24/2017		32.0000		
Barium, Total (Federal)	ug/L	MW-3	05/25/2017		36.0000		
Barium, Total (Federal)	ug/L	MW-3	06/20/2017		36.0000		
Barium, Total (Federal)	ug/L	MW-3	08/08/2017		40.0000		
Barium, Total (Federal)	ug/L	MW-3	05/09/2018		38.0000		
Barium, Total (Federal)	ug/L	MW-3	09/12/2018		45.0000		
Barium, Total (Federal)	ug/L	MW-3	05/16/2019		28.6000		
Barium, Total (Federal)	ug/L	MW-3	11/06/2019		42.8000		
Barium, Total (Federal)	ug/L	MW-3	05/13/2020		43.7000		
Barium, Total (Federal)	ug/L	MW-3	11/03/2020		39.4000		
Barium, Total (Federal)	ug/L	MW-3	05/05/2021		37.3000		
Barium, Total (Federal)	ug/L	MW-3	11/01/2021		38.2000		
Barium, Total (Federal)	ug/L	MW-3	05/08/2022		55.0000		
Barium, Total (Federal)	ug/L	MW-3	11/07/2022		46.1000		
Barium, Total (Federal)	ug/L	MW-3	05/07/2023		61.6000		
Barium, Total (Federal)	ug/L	MW-3	11/08/2023		59.1000		
Barium, Total (Federal)	ug/L	MW-3	05/12/2024		70.5000		
Barium, Total (Federal)	ug/L	MW-4C	09/28/2016		27.0000		
Barium, Total (Federal)	ug/L	MW-4C	10/19/2016		28.0000		
Barium, Total (Federal)	ug/L	MW-4C	11/09/2016		32.0000		
Barium, Total (Federal)	ug/L	MW-4C	12/12/2016		26.0000		
Barium, Total (Federal)	ug/L	MW-4C	02/05/2017		30.0000		
Barium, Total (Federal)	ug/L	MW-4C	03/25/2017		25.0000		
Barium, Total (Federal)	ug/L	MW-4C	05/25/2017		28.0000		
Barium, Total (Federal)	ug/L	MW-4C	06/20/2017		27.0000		
Barium, Total (Federal)	ug/L	MW-4C	08/08/2017		27.0000		
Barium, Total (Federal)	ug/L	MW-4C	05/09/2018		14.0000		
Barium, Total (Federal)	ug/L	MW-4C	09/12/2018		29.0000		
Barium, Total (Federal)	ug/L	MW-4C	05/16/2019		26.2000		
Barium, Total (Federal)	ug/L	MW-4C	11/06/2019		29.1000		
Barium, Total (Federal)	ug/L	MW-4C	05/13/2020		28.3000		
Barium, Total (Federal)	ug/L	MW-4C	11/03/2020		30.7000		
Barium, Total (Federal)	ug/L	MW-4C	05/05/2021		28.6000		
Barium, Total (Federal)	ug/L	MW-4C	11/01/2021		30.7000		
Barium, Total (Federal)	ug/L	MW-4C	05/08/2022		26.6000		
Barium, Total (Federal)	ug/L	MW-4C	11/08/2022		32.6000		
Barium, Total (Federal)	ug/L	MW-4C	05/09/2023		27.5000		
Barium, Total (Federal)	ug/L	MW-4C	11/08/2023		28.6000		
Barium, Total (Federal)	ug/L	MW-4C	05/12/2024		27.4000		
Beryllium, Total (Federal)	ug/L	MW-2R	09/28/2016	ND	10.0000	0.6500	**

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Beryllium, Total (Federal)	ug/L	MW-2R	10/19/2016	ND	10.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-2R	11/09/2016	ND	10.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-2R	12/12/2016	ND	10.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-2R	03/16/2017	ND	1.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-2R	03/17/2017	ND	1.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-2R	03/24/2017	ND	4.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-2R	04/20/2017	ND	1.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-2R	04/24/2017	ND	1.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-2R	05/16/2017	ND	1.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-2R	06/20/2017	ND	1.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-2R	08/08/2017	ND	1.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-2R	05/09/2018	ND	5.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-2R	09/12/2018	ND	0.6500		
Beryllium, Total (Federal)	ug/L	MW-2R	05/16/2019	ND	0.2000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-2R	11/06/2019	ND	0.2000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-2R	05/13/2020	ND	0.2000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-2R	11/03/2020	ND	0.2000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-2R	05/05/2021	ND	0.2000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-2R	11/01/2021	ND	0.2000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-2R	05/08/2022	ND	0.2000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-2R	11/07/2022	ND	0.2000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-2R	05/09/2023	ND	0.2000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-2R	05/02/2024	ND	0.2000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-3	09/28/2016	ND	10.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-3	10/19/2016	ND	10.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-3	11/09/2016	ND	10.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-3	12/12/2016	ND	10.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-3	02/05/2017	ND	4.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-3	03/24/2017	ND	4.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-3	05/25/2017	ND	1.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-3	06/20/2017	ND	1.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-3	08/08/2017	ND	1.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-3	05/09/2018	ND	5.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-3	09/12/2018	ND	0.6500		
Beryllium, Total (Federal)	ug/L	MW-3	05/16/2019	ND	0.2000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-3	11/06/2019	ND	0.2000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-3	05/13/2020	ND	0.2000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-3	11/03/2020	ND	0.2000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-3	05/05/2021	ND	0.2000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-3	11/01/2021	ND	0.2000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-3	05/08/2022	ND	0.2000	0.6500	**

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Beryllium, Total (Federal)	ug/L	MW-3	11/07/2022	ND	0.2000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-3	05/07/2023	ND	0.2000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-3	05/12/2024	ND	0.2000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-4C	09/28/2016	ND	10.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-4C	10/19/2016	ND	10.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-4C	11/09/2016	ND	10.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-4C	12/12/2016	ND	10.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-4C	02/05/2017	ND	4.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-4C	03/25/2017	ND	4.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-4C	05/25/2017	ND	1.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-4C	06/20/2017	ND	1.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-4C	08/08/2017	ND	1.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-4C	05/09/2018	ND	5.0000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-4C	09/12/2018	ND	0.6500		
Beryllium, Total (Federal)	ug/L	MW-4C	05/16/2019	ND	0.2000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-4C	11/06/2019	ND	0.2000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-4C	05/13/2020	ND	0.2000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-4C	11/03/2020	ND	0.2000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-4C	05/05/2021	ND	0.2000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-4C	11/01/2021	ND	0.2000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-4C	05/08/2022	ND	0.2000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-4C	11/08/2022	ND	0.2000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-4C	05/09/2023	ND	0.2000	0.6500	**
Beryllium, Total (Federal)	ug/L	MW-4C	05/12/2024	ND	0.2000	0.6500	**
Cadmium, Total (Federal)	ug/L	MW-2R	09/28/2016	ND	10.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	10/19/2016	ND	10.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	11/09/2016	ND	10.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	12/12/2016	ND	10.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	03/16/2017	ND	1.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	03/17/2017	ND	1.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	03/24/2017	ND	4.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	04/20/2017	ND	1.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	04/24/2017	ND	1.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	05/16/2017	ND	1.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	06/20/2017	ND	1.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	08/08/2017	ND	1.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	05/09/2018	ND	5.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	09/12/2018	ND	0.5500	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	05/16/2019	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-2R	11/06/2019	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-2R	05/13/2020	ND	2.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Cadmium, Total (Federal)	ug/L	MW-2R	11/03/2020	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-2R	05/05/2021	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-2R	11/01/2021	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-2R	05/08/2022	ND	0.2000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	11/07/2022	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-2R	05/09/2023	ND	0.2000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-2R	05/02/2024	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-3	09/28/2016	ND	10.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-3	10/19/2016	ND	10.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-3	11/09/2016	ND	10.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-3	12/12/2016	ND	10.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-3	02/05/2017	ND	1.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-3	03/24/2017	ND	4.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-3	05/25/2017	ND	1.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-3	06/20/2017	ND	1.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-3	08/08/2017	ND	1.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-3	05/09/2018	ND	5.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-3	09/12/2018	ND	0.5500	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-3	05/16/2019	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-3	11/06/2019	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-3	05/13/2020	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-3	11/03/2020	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-3	05/05/2021	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-3	11/01/2021	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-3	05/08/2022	ND	0.2000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-3	11/07/2022	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-3	05/07/2023	ND	0.2000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-3	05/12/2024	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-4C	09/28/2016	ND	10.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-4C	10/19/2016	ND	10.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-4C	11/09/2016	ND	10.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-4C	12/12/2016	ND	10.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-4C	02/05/2017	ND	1.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-4C	03/25/2017	ND	4.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-4C	05/25/2017	ND	1.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-4C	06/20/2017	ND	1.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-4C	08/08/2017	ND	1.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-4C	05/09/2018	ND	5.0000	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-4C	09/12/2018	ND	0.5500	2.0000	**
Cadmium, Total (Federal)	ug/L	MW-4C	05/16/2019	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-4C	11/06/2019	ND	2.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Cadmium, Total (Federal)	ug/L	MW-4C	05/13/2020	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-4C	11/03/2020	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-4C	05/05/2021	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-4C	11/01/2021	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-4C	05/08/2022		0.8800		
Cadmium, Total (Federal)	ug/L	MW-4C	11/08/2022	ND	2.0000		
Cadmium, Total (Federal)	ug/L	MW-4C	05/09/2023		0.3900		
Cadmium, Total (Federal)	ug/L	MW-4C	05/12/2024	ND	2.0000		
Chromium, Total (Federal)	ug/L	MW-2R	09/28/2016	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	10/19/2016	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	11/09/2016	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	12/12/2016	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	03/16/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	03/17/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	03/24/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	04/20/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	04/24/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	05/16/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	06/20/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	08/08/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	05/09/2018	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	05/16/2019	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	05/13/2020	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	05/05/2021	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	11/01/2021	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	05/08/2022	ND	2.0000	10.0000	**
Chromium, Total (Federal)	ug/L	MW-2R	11/07/2022	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	05/09/2023	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-2R	05/02/2024	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	09/28/2016	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	10/19/2016	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	11/09/2016	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	12/12/2016	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	02/05/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	03/24/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	05/25/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	06/20/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	08/08/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	05/09/2018	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	05/16/2019	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	05/13/2020	ND	10.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Chromium, Total (Federal)	ug/L	MW-3	05/05/2021	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	11/01/2021	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	05/08/2022	ND	2.0000	10.0000	**
Chromium, Total (Federal)	ug/L	MW-3	11/07/2022	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	05/07/2023	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-3	05/12/2024	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	09/28/2016	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	10/19/2016	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	11/09/2016	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	12/12/2016	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	02/05/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	03/25/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	05/25/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	06/20/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	08/08/2017	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	05/09/2018	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	05/16/2019	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	05/13/2020	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	05/05/2021	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	11/01/2021	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	05/08/2022	ND	2.0000	10.0000	**
Chromium, Total (Federal)	ug/L	MW-4C	11/08/2022	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	05/09/2023	ND	10.0000		
Chromium, Total (Federal)	ug/L	MW-4C	05/12/2024	ND	10.0000		
Cobalt, Total (Federal)	ug/L	MW-2R	09/28/2016	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-2R	10/19/2016	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-2R	11/09/2016	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-2R	12/12/2016	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-2R	03/16/2017	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-2R	03/17/2017	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-2R	03/24/2017	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-2R	04/20/2017	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-2R	04/24/2017	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-2R	05/16/2017	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-2R	06/20/2017	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-2R	08/08/2017	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-2R	05/09/2018	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-2R	09/12/2018	ND	3.6000	1.0000	**
Cobalt, Total (Federal)	ug/L	MW-2R	05/16/2019		3.3000		
Cobalt, Total (Federal)	ug/L	MW-2R	11/06/2019		3.1000		
Cobalt, Total (Federal)	ug/L	MW-2R	05/13/2020		2.8000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Cobalt, Total (Federal)	ug/L	MW-2R	11/03/2020		3.1000		
Cobalt, Total (Federal)	ug/L	MW-2R	05/05/2021		2.9000		
Cobalt, Total (Federal)	ug/L	MW-2R	11/01/2021		2.2000		
Cobalt, Total (Federal)	ug/L	MW-2R	05/08/2022		3.3000		
Cobalt, Total (Federal)	ug/L	MW-2R	11/07/2022		2.0000		
Cobalt, Total (Federal)	ug/L	MW-2R	05/09/2023		3.7000		
Cobalt, Total (Federal)	ug/L	MW-2R	11/08/2023		2.7000		
Cobalt, Total (Federal)	ug/L	MW-2R	05/02/2024		3.3000		
Cobalt, Total (Federal)	ug/L	MW-3	09/28/2016	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-3	10/19/2016	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-3	11/09/2016	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-3	12/12/2016	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-3	02/05/2017	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-3	03/24/2017	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-3	05/25/2017	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-3	06/20/2017	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-3	08/08/2017	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-3	05/09/2018	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-3	09/12/2018	ND	3.6000	1.0000	**
Cobalt, Total (Federal)	ug/L	MW-3	05/16/2019		2.0000		
Cobalt, Total (Federal)	ug/L	MW-3	11/06/2019		2.6000		
Cobalt, Total (Federal)	ug/L	MW-3	05/13/2020		2.7000		
Cobalt, Total (Federal)	ug/L	MW-3	11/03/2020		2.1000		
Cobalt, Total (Federal)	ug/L	MW-3	05/05/2021		2.1000		
Cobalt, Total (Federal)	ug/L	MW-3	11/01/2021		2.3000		
Cobalt, Total (Federal)	ug/L	MW-3	05/08/2022		1.8000		
Cobalt, Total (Federal)	ug/L	MW-3	11/07/2022		2.6000		
Cobalt, Total (Federal)	ug/L	MW-3	05/07/2023		2.3000		
Cobalt, Total (Federal)	ug/L	MW-3	11/08/2023		2.2000		
Cobalt, Total (Federal)	ug/L	MW-3	05/12/2024		1.9000		
Cobalt, Total (Federal)	ug/L	MW-4C	09/28/2016	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-4C	10/19/2016	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-4C	11/09/2016	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-4C	12/12/2016	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-4C	02/05/2017	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-4C	03/25/2017	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-4C	05/25/2017	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-4C	06/20/2017	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-4C	08/08/2017	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-4C	05/09/2018	ND	20.0000		*
Cobalt, Total (Federal)	ug/L	MW-4C	09/12/2018	ND	3.6000		*

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Cobalt, Total (Federal)	ug/L	MW-4C	05/16/2019		1.0000		
Cobalt, Total (Federal)	ug/L	MW-4C	11/06/2019	ND	1.0000		
Cobalt, Total (Federal)	ug/L	MW-4C	05/13/2020	ND	1.0000		
Cobalt, Total (Federal)	ug/L	MW-4C	11/03/2020		1.0000		
Cobalt, Total (Federal)	ug/L	MW-4C	05/05/2021		1.2000		
Cobalt, Total (Federal)	ug/L	MW-4C	11/01/2021		1.1000		
Cobalt, Total (Federal)	ug/L	MW-4C	05/08/2022	ND	1.0000		
Cobalt, Total (Federal)	ug/L	MW-4C	11/08/2022		1.1000		
Cobalt, Total (Federal)	ug/L	MW-4C	05/09/2023	ND	1.0000		
Cobalt, Total (Federal)	ug/L	MW-4C	11/08/2023		1.1000		
Cobalt, Total (Federal)	ug/L	MW-4C	05/12/2024		1.1000		
Fluoride (Federal)	mg/L	MW-2R	09/28/2016	ND	0.5000	0.1000	**
Fluoride (Federal)	mg/L	MW-2R	10/19/2016	ND	5.0000		*
Fluoride (Federal)	mg/L	MW-2R	11/09/2016	ND	0.5000	0.1000	**
Fluoride (Federal)	mg/L	MW-2R	12/12/2016	ND	5.0000		*
Fluoride (Federal)	mg/L	MW-2R	03/16/2017	ND	5.0000		*
Fluoride (Federal)	mg/L	MW-2R	03/17/2017	ND	5.0000		*
Fluoride (Federal)	mg/L	MW-2R	03/24/2017	ND	5.0000		*
Fluoride (Federal)	mg/L	MW-2R	04/20/2017	ND	5.0000		*
Fluoride (Federal)	mg/L	MW-2R	04/24/2017	ND	5.0000		*
Fluoride (Federal)	mg/L	MW-2R	05/16/2017	ND	5.0000		*
Fluoride (Federal)	mg/L	MW-2R	06/20/2017	ND	5.0000		*
Fluoride (Federal)	mg/L	MW-2R	08/08/2017	ND	5.0000		*
Fluoride (Federal)	mg/L	MW-2R	05/09/2018	ND	5.0000		*
Fluoride (Federal)	mg/L	MW-2R	09/12/2018	ND	0.6000	0.1000	**
Fluoride (Federal)	mg/L	MW-2R	05/16/2019	ND	0.1000		
Fluoride (Federal)	mg/L	MW-2R	11/06/2019	ND	0.1000		
Fluoride (Federal)	mg/L	MW-2R	05/13/2020		0.1200		
Fluoride (Federal)	mg/L	MW-2R	11/03/2020		0.1200		
Fluoride (Federal)	mg/L	MW-2R	05/05/2021	ND	0.1000		
Fluoride (Federal)	mg/L	MW-2R	11/01/2021	ND	0.1000		
Fluoride (Federal)	mg/L	MW-2R	05/08/2022	ND	0.1000		
Fluoride (Federal)	mg/L	MW-2R	11/07/2022	ND	0.1000		
Fluoride (Federal)	mg/L	MW-2R	05/09/2023	ND	0.1000		
Fluoride (Federal)	mg/L	MW-2R	11/08/2023	ND	0.1000		
Fluoride (Federal)	mg/L	MW-2R	05/02/2024	ND	0.1000		
Fluoride (Federal)	mg/L	MW-3	09/28/2016	ND	0.5000	0.1000	**
Fluoride (Federal)	mg/L	MW-3	10/19/2016	ND	5.0000		*
Fluoride (Federal)	mg/L	MW-3	11/09/2016	ND	0.5000	0.1000	**
Fluoride (Federal)	mg/L	MW-3	12/12/2016	ND	5.0000		*
Fluoride (Federal)	mg/L	MW-3	02/05/2017	ND	5.0000		*

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Fluoride (Federal)	mg/L	MW-3	03/24/2017	ND	5.0000		*
Fluoride (Federal)	mg/L	MW-3	05/25/2017	ND	5.0000		*
Fluoride (Federal)	mg/L	MW-3	06/20/2017	ND	5.0000		*
Fluoride (Federal)	mg/L	MW-3	08/08/2017	ND	5.0000		*
Fluoride (Federal)	mg/L	MW-3	05/09/2018	ND	5.0000		*
Fluoride (Federal)	mg/L	MW-3	09/12/2018	ND	0.6000	0.1000	**
Fluoride (Federal)	mg/L	MW-3	05/16/2019		0.1900		
Fluoride (Federal)	mg/L	MW-3	11/06/2019		0.1300		
Fluoride (Federal)	mg/L	MW-3	05/13/2020		0.3500		
Fluoride (Federal)	mg/L	MW-3	11/03/2020		0.1700		
Fluoride (Federal)	mg/L	MW-3	05/05/2021		0.1400		
Fluoride (Federal)	mg/L	MW-3	11/01/2021		0.1000		
Fluoride (Federal)	mg/L	MW-3	05/08/2022	ND	0.1000		
Fluoride (Federal)	mg/L	MW-3	11/07/2022	ND	0.1000		
Fluoride (Federal)	mg/L	MW-3	05/07/2023		0.1400		
Fluoride (Federal)	mg/L	MW-3	11/08/2023	ND	0.1000		
Fluoride (Federal)	mg/L	MW-3	05/12/2024	ND	0.1000		
Fluoride (Federal)	mg/L	MW-4C	09/28/2016	ND	0.5000	0.1000	**
Fluoride (Federal)	mg/L	MW-4C	10/19/2016	ND	5.0000		*
Fluoride (Federal)	mg/L	MW-4C	11/09/2016	ND	0.5000	0.1000	**
Fluoride (Federal)	mg/L	MW-4C	12/12/2016	ND	5.0000		*
Fluoride (Federal)	mg/L	MW-4C	02/05/2017	ND	5.0000		*
Fluoride (Federal)	mg/L	MW-4C	03/25/2017	ND	5.0000		*
Fluoride (Federal)	mg/L	MW-4C	05/25/2017	ND	5.0000		*
Fluoride (Federal)	mg/L	MW-4C	06/20/2017	ND	5.0000		*
Fluoride (Federal)	mg/L	MW-4C	08/08/2017	ND	5.0000		*
Fluoride (Federal)	mg/L	MW-4C	05/09/2018	ND	5.0000		*
Fluoride (Federal)	mg/L	MW-4C	09/12/2018	ND	0.6000	0.1000	**
Fluoride (Federal)	mg/L	MW-4C	05/16/2019		0.1100		
Fluoride (Federal)	mg/L	MW-4C	11/06/2019		0.1200		
Fluoride (Federal)	mg/L	MW-4C	05/13/2020		0.1900		
Fluoride (Federal)	mg/L	MW-4C	11/03/2020		0.1200		
Fluoride (Federal)	mg/L	MW-4C	05/05/2021	ND	0.1000		
Fluoride (Federal)	mg/L	MW-4C	11/01/2021		0.1200		
Fluoride (Federal)	mg/L	MW-4C	05/08/2022	ND	0.1000		
Fluoride (Federal)	mg/L	MW-4C	11/08/2022		0.1800		
Fluoride (Federal)	mg/L	MW-4C	05/09/2023	ND	0.1000		
Fluoride (Federal)	mg/L	MW-4C	11/08/2023		0.1600		
Fluoride (Federal)	mg/L	MW-4C	05/12/2024		0.2300		
Lead, Total (Federal)	ug/L	MW-2R	09/28/2016	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	10/19/2016	ND	10.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Lead, Total (Federal)	ug/L	MW-2R	11/09/2016	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	12/12/2016	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	03/16/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	03/17/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	03/24/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	04/20/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	04/24/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	05/16/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	06/20/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	08/08/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	05/09/2018	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	05/16/2019	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	11/06/2019	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	05/13/2020	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	11/03/2020	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	05/05/2021	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	11/01/2021	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	05/08/2022	ND	1.0000	10.0000	**
Lead, Total (Federal)	ug/L	MW-2R	11/07/2022	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	05/09/2023	ND	1.0000	10.0000	**
Lead, Total (Federal)	ug/L	MW-2R	11/08/2023	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-2R	05/02/2024	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	09/28/2016	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	10/19/2016	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	11/09/2016	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	12/12/2016	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	02/05/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	03/24/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	05/25/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	06/20/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	08/08/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	05/09/2018	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	05/16/2019		47.8000		
Lead, Total (Federal)	ug/L	MW-3	11/06/2019	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	05/13/2020	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	11/03/2020	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	05/05/2021	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	11/01/2021	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	05/08/2022	ND	1.0000	10.0000	**
Lead, Total (Federal)	ug/L	MW-3	11/07/2022	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	05/07/2023	ND	1.0000	10.0000	**

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Lead, Total (Federal)	ug/L	MW-3	11/08/2023	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-3	05/12/2024	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	09/28/2016	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	10/19/2016	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	11/09/2016	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	12/12/2016	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	02/05/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	03/25/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	05/25/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	06/20/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	08/08/2017	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	05/09/2018	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	05/16/2019	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	11/06/2019	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	05/13/2020	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	11/03/2020	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	05/05/2021	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	11/01/2021	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	05/08/2022	ND	1.0000	10.0000	**
Lead, Total (Federal)	ug/L	MW-4C	11/08/2022	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	05/09/2023	ND	1.0000	10.0000	**
Lead, Total (Federal)	ug/L	MW-4C	11/08/2023	ND	10.0000		
Lead, Total (Federal)	ug/L	MW-4C	05/12/2024	ND	10.0000		
Lithium, Total (Federal)	ug/L	MW-2R	09/28/2016		1100.0000		
Lithium, Total (Federal)	ug/L	MW-2R	10/19/2016		820.0000		
Lithium, Total (Federal)	ug/L	MW-2R	11/09/2016		780.0000		
Lithium, Total (Federal)	ug/L	MW-2R	12/12/2016		510.0000		
Lithium, Total (Federal)	ug/L	MW-2R	03/16/2017		280.0000		
Lithium, Total (Federal)	ug/L	MW-2R	03/17/2017		410.0000		
Lithium, Total (Federal)	ug/L	MW-2R	03/24/2017		530.0000		
Lithium, Total (Federal)	ug/L	MW-2R	04/20/2017		780.0000		
Lithium, Total (Federal)	ug/L	MW-2R	04/24/2017		840.0000		
Lithium, Total (Federal)	ug/L	MW-2R	05/16/2017		1100.0000		
Lithium, Total (Federal)	ug/L	MW-2R	06/20/2017		1100.0000		
Lithium, Total (Federal)	ug/L	MW-2R	08/08/2017		1000.0000		
Lithium, Total (Federal)	ug/L	MW-2R	05/09/2018		960.0000		
Lithium, Total (Federal)	ug/L	MW-2R	09/12/2018		800.0000		
Lithium, Total (Federal)	ug/L	MW-2R	05/16/2019		616.0000		
Lithium, Total (Federal)	ug/L	MW-2R	11/06/2019		495.0000		
Lithium, Total (Federal)	ug/L	MW-2R	05/13/2020		638.0000		
Lithium, Total (Federal)	ug/L	MW-2R	11/03/2020		522.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Lithium, Total (Federal)	ug/L	MW-2R	05/05/2021		890.0000		
Lithium, Total (Federal)	ug/L	MW-2R	11/01/2021		912.0000		
Lithium, Total (Federal)	ug/L	MW-2R	05/08/2022		897.0000		
Lithium, Total (Federal)	ug/L	MW-2R	11/07/2022		812.0000		
Lithium, Total (Federal)	ug/L	MW-2R	05/09/2023		703.0000		
Lithium, Total (Federal)	ug/L	MW-2R	11/08/2023		638.0000		
Lithium, Total (Federal)	ug/L	MW-2R	05/02/2024		778.0000		
Lithium, Total (Federal)	ug/L	MW-3	09/28/2016		2000.0000		
Lithium, Total (Federal)	ug/L	MW-3	10/19/2016		1900.0000		
Lithium, Total (Federal)	ug/L	MW-3	11/09/2016		2200.0000		
Lithium, Total (Federal)	ug/L	MW-3	12/12/2016		2200.0000		
Lithium, Total (Federal)	ug/L	MW-3	02/05/2017		2100.0000		
Lithium, Total (Federal)	ug/L	MW-3	03/24/2017		2100.0000		
Lithium, Total (Federal)	ug/L	MW-3	05/25/2017		2000.0000		
Lithium, Total (Federal)	ug/L	MW-3	06/20/2017		2000.0000		
Lithium, Total (Federal)	ug/L	MW-3	08/08/2017		1600.0000		
Lithium, Total (Federal)	ug/L	MW-3	05/09/2018		2600.0000		
Lithium, Total (Federal)	ug/L	MW-3	09/12/2018		2600.0000		
Lithium, Total (Federal)	ug/L	MW-3	05/16/2019		1260.0000		
Lithium, Total (Federal)	ug/L	MW-3	11/06/2019		1930.0000		
Lithium, Total (Federal)	ug/L	MW-3	05/13/2020		1520.0000		
Lithium, Total (Federal)	ug/L	MW-3	11/03/2020		1760.0000		
Lithium, Total (Federal)	ug/L	MW-3	05/05/2021		1820.0000		
Lithium, Total (Federal)	ug/L	MW-3	11/01/2021		1880.0000		
Lithium, Total (Federal)	ug/L	MW-3	05/08/2022		1960.0000		
Lithium, Total (Federal)	ug/L	MW-3	11/07/2022		1980.0000		
Lithium, Total (Federal)	ug/L	MW-3	05/07/2023		1710.0000		
Lithium, Total (Federal)	ug/L	MW-3	11/08/2023		1640.0000		
Lithium, Total (Federal)	ug/L	MW-3	05/12/2024		1620.0000		
Lithium, Total (Federal)	ug/L	MW-4C	09/28/2016		310.0000		
Lithium, Total (Federal)	ug/L	MW-4C	10/19/2016		280.0000		
Lithium, Total (Federal)	ug/L	MW-4C	11/09/2016		330.0000		
Lithium, Total (Federal)	ug/L	MW-4C	12/12/2016		260.0000		
Lithium, Total (Federal)	ug/L	MW-4C	02/05/2017		310.0000		
Lithium, Total (Federal)	ug/L	MW-4C	03/25/2017		290.0000		
Lithium, Total (Federal)	ug/L	MW-4C	05/25/2017		330.0000		
Lithium, Total (Federal)	ug/L	MW-4C	06/20/2017		250.0000		
Lithium, Total (Federal)	ug/L	MW-4C	08/08/2017		230.0000		
Lithium, Total (Federal)	ug/L	MW-4C	05/09/2018		250.0000		
Lithium, Total (Federal)	ug/L	MW-4C	09/12/2018		280.0000		
Lithium, Total (Federal)	ug/L	MW-4C	05/16/2019		316.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Lithium, Total (Federal)	ug/L	MW-4C	11/06/2019		284.0000		
Lithium, Total (Federal)	ug/L	MW-4C	05/13/2020		242.0000		
Lithium, Total (Federal)	ug/L	MW-4C	11/03/2020		287.0000		
Lithium, Total (Federal)	ug/L	MW-4C	05/05/2021		359.0000		
Lithium, Total (Federal)	ug/L	MW-4C	11/01/2021		334.0000		
Lithium, Total (Federal)	ug/L	MW-4C	05/08/2022		442.0000		
Lithium, Total (Federal)	ug/L	MW-4C	11/08/2022		411.0000		
Lithium, Total (Federal)	ug/L	MW-4C	05/09/2023		351.0000		
Lithium, Total (Federal)	ug/L	MW-4C	11/08/2023		351.0000		
Lithium, Total (Federal)	ug/L	MW-4C	05/12/2024		350.0000		
Mercury, total (Federal)	ug/L	MW-2R	09/28/2016	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-2R	10/19/2016	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-2R	11/09/2016	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-2R	12/12/2016	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-2R	03/16/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-2R	03/17/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-2R	03/24/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-2R	04/20/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-2R	04/24/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-2R	05/16/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-2R	06/20/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-2R	08/08/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-2R	05/09/2018	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-2R	05/16/2019	ND	2.0000	0.2000	**
Mercury, total (Federal)	ug/L	MW-2R	05/13/2020	ND	2.0000	0.2000	**
Mercury, total (Federal)	ug/L	MW-2R	05/05/2021	ND	2.0000	0.2000	**
Mercury, total (Federal)	ug/L	MW-2R	11/01/2021	ND	2.0000	0.2000	**
Mercury, total (Federal)	ug/L	MW-2R	05/08/2022	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-2R	05/09/2023	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-2R	05/02/2024	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-3	09/28/2016	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-3	10/19/2016	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-3	11/09/2016	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-3	12/12/2016	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-3	02/05/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-3	03/24/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-3	05/25/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-3	06/20/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-3	08/08/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-3	05/09/2018	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-3	05/16/2019	ND	2.0000	0.2000	**

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Mercury, total (Federal)	ug/L	MW-3	05/13/2020	ND	2.0000	0.2000	**
Mercury, total (Federal)	ug/L	MW-3	05/05/2021	ND	2.0000	0.2000	**
Mercury, total (Federal)	ug/L	MW-3	11/01/2021	ND	2.0000	0.2000	**
Mercury, total (Federal)	ug/L	MW-3	05/08/2022	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-3	05/07/2023	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-3	05/12/2024	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-4C	09/28/2016	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-4C	10/19/2016	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-4C	11/09/2016	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-4C	12/12/2016	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-4C	02/05/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-4C	03/25/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-4C	05/25/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-4C	06/20/2017		0.3500		
Mercury, total (Federal)	ug/L	MW-4C	08/08/2017	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-4C	05/09/2018	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-4C	05/16/2019	ND	2.0000	0.2000	**
Mercury, total (Federal)	ug/L	MW-4C	05/13/2020	ND	2.0000	0.2000	**
Mercury, total (Federal)	ug/L	MW-4C	05/05/2021	ND	2.0000	0.2000	**
Mercury, total (Federal)	ug/L	MW-4C	11/01/2021	ND	2.0000	0.2000	**
Mercury, total (Federal)	ug/L	MW-4C	05/08/2022	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-4C	05/09/2023	ND	0.2000		
Mercury, total (Federal)	ug/L	MW-4C	05/12/2024	ND	0.2000		
Molybdenum, Total (Federal)	ug/L	MW-2R	09/28/2016	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-2R	10/19/2016	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-2R	11/09/2016	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-2R	12/12/2016	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-2R	03/16/2017	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-2R	03/17/2017	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-2R	03/24/2017	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-2R	04/20/2017	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-2R	04/24/2017	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-2R	05/16/2017	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-2R	06/20/2017	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-2R	08/08/2017	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-2R	05/09/2018	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-2R	09/12/2018	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-2R	05/16/2019		11.2000		
Molybdenum, Total (Federal)	ug/L	MW-2R	11/06/2019	ND	10.0000	100.0000	**
Molybdenum, Total (Federal)	ug/L	MW-2R	05/13/2020		11.7000		
Molybdenum, Total (Federal)	ug/L	MW-2R	11/03/2020		12.8000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Molybdenum, Total (Federal)	ug/L	MW-2R	05/05/2021		10.3000		
Molybdenum, Total (Federal)	ug/L	MW-2R	11/01/2021		11.0000		
Molybdenum, Total (Federal)	ug/L	MW-2R	05/08/2022		10.2000		
Molybdenum, Total (Federal)	ug/L	MW-2R	11/07/2022		10.7000		
Molybdenum, Total (Federal)	ug/L	MW-2R	05/09/2023		10.4000		
Molybdenum, Total (Federal)	ug/L	MW-2R	11/08/2023		10.6000		
Molybdenum, Total (Federal)	ug/L	MW-2R	05/02/2024		10.4000		
Molybdenum, Total (Federal)	ug/L	MW-3	09/28/2016		350.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	10/19/2016		330.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	11/09/2016		280.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	12/12/2016		390.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	02/05/2017		660.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	03/24/2017		660.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	05/25/2017		570.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	06/20/2017		510.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	08/08/2017		330.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	05/09/2018		390.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	09/12/2018		520.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	05/16/2019		338.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	11/06/2019		508.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	05/13/2020		529.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	11/03/2020		549.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	05/05/2021		532.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	11/01/2021		501.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	05/08/2022		273.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	11/07/2022		304.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	05/07/2023		345.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	11/08/2023		242.0000		
Molybdenum, Total (Federal)	ug/L	MW-3	05/12/2024		426.0000		
Molybdenum, Total (Federal)	ug/L	MW-4C	09/28/2016	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-4C	10/19/2016	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-4C	11/09/2016	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-4C	12/12/2016	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-4C	02/05/2017	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-4C	03/25/2017	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-4C	05/25/2017	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-4C	06/20/2017	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-4C	08/08/2017	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-4C	05/09/2018	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-4C	09/12/2018	ND	100.0000		
Molybdenum, Total (Federal)	ug/L	MW-4C	05/16/2019	ND	10.0000	100.0000	**

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Molybdenum, Total (Federal)	ug/L	MW-4C	11/06/2019	ND	10.0000	100.0000	**
Molybdenum, Total (Federal)	ug/L	MW-4C	05/13/2020	ND	10.0000	100.0000	**
Molybdenum, Total (Federal)	ug/L	MW-4C	11/03/2020	ND	10.0000	100.0000	**
Molybdenum, Total (Federal)	ug/L	MW-4C	05/05/2021	ND	10.0000	100.0000	**
Molybdenum, Total (Federal)	ug/L	MW-4C	11/01/2021	ND	10.0000	100.0000	**
Molybdenum, Total (Federal)	ug/L	MW-4C	05/08/2022		7.8000		
Molybdenum, Total (Federal)	ug/L	MW-4C	11/08/2022	ND	10.0000	100.0000	**
Molybdenum, Total (Federal)	ug/L	MW-4C	05/09/2023		8.2000		
Molybdenum, Total (Federal)	ug/L	MW-4C	11/08/2023	ND	10.0000	100.0000	**
Molybdenum, Total (Federal)	ug/L	MW-4C	05/12/2024	ND	10.0000	100.0000	**
Selenium, Total (Federal)	ug/L	MW-2R	09/28/2016	ND	1.6000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-2R	10/19/2016	ND	10.0000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-2R	11/09/2016	ND	20.0000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-2R	12/12/2016	ND	5.0000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-2R	03/16/2017	ND	5.0000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-2R	03/17/2017	ND	5.0000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-2R	03/24/2017	ND	20.0000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-2R	04/20/2017	ND	5.0000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-2R	04/24/2017	ND	5.0000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-2R	05/16/2017	ND	5.0000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-2R	06/20/2017		5.9000		
Selenium, Total (Federal)	ug/L	MW-2R	08/08/2017	ND	5.0000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-2R	05/09/2018	ND	5.0000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-2R	09/12/2018	ND	5.0000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-2R	05/16/2019	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-2R	11/06/2019	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-2R	05/13/2020	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-2R	11/03/2020	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-2R	05/05/2021	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-2R	11/01/2021	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-2R	05/08/2022	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-2R	11/07/2022	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-2R	05/09/2023	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-2R	11/08/2023	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-2R	05/02/2024	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-3	09/28/2016		2.6000		
Selenium, Total (Federal)	ug/L	MW-3	10/19/2016	ND	10.0000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-3	11/09/2016		2.3000		
Selenium, Total (Federal)	ug/L	MW-3	12/12/2016	ND	5.0000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-3	02/05/2017	ND	30.0000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-3	03/24/2017	ND	20.0000	1.0000	**

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Selenium, Total (Federal)	ug/L	MW-3	05/25/2017	ND	5.0000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-3	06/20/2017		5.2000		
Selenium, Total (Federal)	ug/L	MW-3	08/08/2017	ND	5.0000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-3	05/09/2018	ND	5.0000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-3	09/12/2018	ND	5.0000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-3	05/16/2019	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-3	11/06/2019	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-3	05/13/2020	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-3	11/03/2020	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-3	05/05/2021	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-3	11/01/2021	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-3	05/08/2022	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-3	11/07/2022	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-3	05/07/2023	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-3	11/08/2023	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-3	05/12/2024	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-4C	09/28/2016	ND	1.6000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-4C	10/19/2016	ND	10.0000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-4C	11/09/2016	ND	20.0000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-4C	12/12/2016	ND	5.0000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-4C	02/05/2017	ND	30.0000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-4C	03/25/2017	ND	20.0000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-4C	05/25/2017	ND	5.0000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-4C	06/20/2017	ND	5.0000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-4C	08/08/2017	ND	5.0000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-4C	05/09/2018	ND	5.0000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-4C	09/12/2018	ND	5.0000	1.0000	**
Selenium, Total (Federal)	ug/L	MW-4C	05/16/2019	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-4C	11/06/2019	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-4C	05/13/2020	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-4C	11/03/2020	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-4C	05/05/2021	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-4C	11/01/2021	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-4C	05/08/2022	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-4C	11/08/2022	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-4C	05/09/2023	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-4C	11/08/2023	ND	1.0000		
Selenium, Total (Federal)	ug/L	MW-4C	05/12/2024	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-2R	09/28/2016	ND	50.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-2R	10/19/2016	ND	50.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-2R	11/09/2016	ND	50.0000	1.0000	**

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Thallium, Total (Federal)	ug/L	MW-2R	12/12/2016	ND	50.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-2R	03/16/2017	ND	5.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-2R	03/17/2017	ND	5.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-2R	03/24/2017	ND	20.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-2R	04/20/2017	ND	5.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-2R	04/24/2017	ND	5.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-2R	05/16/2017	ND	5.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-2R	06/20/2017	ND	5.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-2R	08/08/2017	ND	5.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-2R	05/09/2018	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-2R	09/12/2018		2.3000		
Thallium, Total (Federal)	ug/L	MW-2R	05/16/2019	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-2R	11/06/2019	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-2R	05/13/2020	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-2R	11/03/2020	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-2R	05/05/2021	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-2R	11/01/2021	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-2R	05/08/2022	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-2R	05/09/2023	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-2R	11/08/2023	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-2R	05/02/2024	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-3	09/28/2016	ND	50.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-3	10/19/2016	ND	50.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-3	11/09/2016	ND	50.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-3	12/12/2016	ND	50.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-3	02/05/2017	ND	2.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-3	03/24/2017	ND	20.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-3	05/25/2017	ND	5.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-3	06/20/2017	ND	5.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-3	08/08/2017	ND	5.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-3	05/09/2018	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-3	09/12/2018	ND	0.6000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-3	05/16/2019	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-3	11/06/2019	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-3	05/13/2020	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-3	11/03/2020	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-3	05/05/2021	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-3	11/01/2021	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-3	05/08/2022	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-3	05/07/2023	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-3	11/08/2023	ND	1.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Thallium, Total (Federal)	ug/L	MW-3	05/12/2024	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-4C	09/28/2016	ND	50.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-4C	10/19/2016	ND	50.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-4C	11/09/2016	ND	50.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-4C	12/12/2016	ND	50.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-4C	02/05/2017	ND	2.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-4C	03/25/2017	ND	20.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-4C	05/25/2017	ND	5.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-4C	06/20/2017	ND	5.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-4C	08/08/2017	ND	5.0000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-4C	05/09/2018	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-4C	09/12/2018	ND	0.6000	1.0000	**
Thallium, Total (Federal)	ug/L	MW-4C	05/16/2019	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-4C	11/06/2019	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-4C	05/13/2020	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-4C	11/03/2020	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-4C	05/05/2021	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-4C	11/01/2021	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-4C	05/08/2022	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-4C	05/09/2023	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-4C	11/08/2023	ND	1.0000		
Thallium, Total (Federal)	ug/L	MW-4C	05/12/2024	ND	1.0000		
Total Radium (Federal)	pCi/L	MW-2R	03/16/2017	ND	0.5500	1.0000	**
Total Radium (Federal)	pCi/L	MW-2R	03/17/2017		2.2800		
Total Radium (Federal)	pCi/L	MW-2R	03/24/2017		1.3600		
Total Radium (Federal)	pCi/L	MW-2R	04/20/2017		1.3800		
Total Radium (Federal)	pCi/L	MW-2R	04/24/2017		1.2000		
Total Radium (Federal)	pCi/L	MW-2R	05/16/2017		0.9700		
Total Radium (Federal)	pCi/L	MW-2R	06/20/2017		3.1200		
Total Radium (Federal)	pCi/L	MW-2R	08/08/2017		0.8900		
Total Radium (Federal)	pCi/L	MW-2R	05/09/2018		2.2000		
Total Radium (Federal)	pCi/L	MW-2R	09/12/2018	ND	1.0000		
Total Radium (Federal)	pCi/L	MW-2R	05/16/2019		1.1900		
Total Radium (Federal)	pCi/L	MW-2R	11/06/2019		0.8510		
Total Radium (Federal)	pCi/L	MW-2R	05/13/2020		1.0100		
Total Radium (Federal)	pCi/L	MW-2R	11/03/2020	ND	1.6200	1.0000	**
Total Radium (Federal)	pCi/L	MW-2R	05/05/2021		1.5900		
Total Radium (Federal)	pCi/L	MW-2R	11/01/2021	ND	1.7700	1.0000	**
Total Radium (Federal)	pCi/L	MW-2R	05/08/2022		1.2200		
Total Radium (Federal)	pCi/L	MW-2R	11/07/2022		1.0600		
Total Radium (Federal)	pCi/L	MW-2R	05/09/2023		1.4200		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Total Radium (Federal)	pCi/L	MW-2R	11/08/2023		1.3800		
Total Radium (Federal)	pCi/L	MW-2R	05/02/2024		1.6900		
Total Radium (Federal)	pCi/L	MW-3	09/28/2016		1.4000		
Total Radium (Federal)	pCi/L	MW-3	10/19/2016		2.5000		
Total Radium (Federal)	pCi/L	MW-3	11/09/2016		1.7700		
Total Radium (Federal)	pCi/L	MW-3	12/12/2016		2.0800		
Total Radium (Federal)	pCi/L	MW-3	02/05/2017		1.7000		
Total Radium (Federal)	pCi/L	MW-3	03/24/2017	ND	0.6000	1.0000	**
Total Radium (Federal)	pCi/L	MW-3	03/25/2017	ND	0.5000	1.0000	**
Total Radium (Federal)	pCi/L	MW-3	06/20/2017		0.9600		
Total Radium (Federal)	pCi/L	MW-3	08/08/2017		2.2000		
Total Radium (Federal)	pCi/L	MW-3	05/09/2018		2.0700		
Total Radium (Federal)	pCi/L	MW-3	09/12/2018	ND	1.0000		
Total Radium (Federal)	pCi/L	MW-3	05/16/2019		0.7450		
Total Radium (Federal)	pCi/L	MW-3	11/06/2019		4.4000		
Total Radium (Federal)	pCi/L	MW-3	05/13/2020		1.8000		
Total Radium (Federal)	pCi/L	MW-3	11/03/2020		0.7770		
Total Radium (Federal)	pCi/L	MW-3	05/05/2021		2.5100		
Total Radium (Federal)	pCi/L	MW-3	11/01/2021		1.5900		
Total Radium (Federal)	pCi/L	MW-3	05/08/2022		1.2600		
Total Radium (Federal)	pCi/L	MW-3	11/07/2022		0.6450		
Total Radium (Federal)	pCi/L	MW-3	05/07/2023		0.9250		
Total Radium (Federal)	pCi/L	MW-3	11/08/2023		2.1100		
Total Radium (Federal)	pCi/L	MW-3	05/12/2024		0.9300		
Total Radium (Federal)	pCi/L	MW-4C	09/28/2016		2.1000		
Total Radium (Federal)	pCi/L	MW-4C	10/19/2016		1.1000		
Total Radium (Federal)	pCi/L	MW-4C	11/09/2016		0.8600		
Total Radium (Federal)	pCi/L	MW-4C	12/12/2016		2.2800		
Total Radium (Federal)	pCi/L	MW-4C	02/05/2017		2.5200		
Total Radium (Federal)	pCi/L	MW-4C	03/25/2017		1.4000		
Total Radium (Federal)	pCi/L	MW-4C	06/20/2017		3.0300		
Total Radium (Federal)	pCi/L	MW-4C	08/08/2017		2.0300		
Total Radium (Federal)	pCi/L	MW-4C	05/09/2018	ND	1.0000		
Total Radium (Federal)	pCi/L	MW-4C	09/12/2018	ND	1.0000		
Total Radium (Federal)	pCi/L	MW-4C	05/16/2019		0.7880		
Total Radium (Federal)	pCi/L	MW-4C	11/06/2019	ND	1.3700	1.0000	**
Total Radium (Federal)	pCi/L	MW-4C	05/13/2020	ND	1.9900	1.0000	**
Total Radium (Federal)	pCi/L	MW-4C	11/03/2020		1.2200		
Total Radium (Federal)	pCi/L	MW-4C	05/05/2021		2.0900		
Total Radium (Federal)	pCi/L	MW-4C	11/01/2021		1.2500		
Total Radium (Federal)	pCi/L	MW-4C	05/08/2022		1.1600		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Total Radium (Federal)	pCi/L	MW-4C	11/08/2022		0.6990		
Total Radium (Federal)	pCi/L	MW-4C	05/09/2023		0.8620		
Total Radium (Federal)	pCi/L	MW-4C	11/08/2023		1.5700		
Total Radium (Federal)	pCi/L	MW-4C	05/12/2024		0.9950		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table C-2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Antimony, Total (Federal)	ug/L	AP-1R	05/05/2024	ND	1.0000		2.1000
Antimony, Total (Federal)	ug/L	AP-2A	05/07/2024		4.3000	*	2.1000
Antimony, Total (Federal)	ug/L	AP-2BO	05/07/2024	ND	1.0000		2.1000
Antimony, Total (Federal)	ug/L	AP-3	05/05/2024	ND	1.0000		2.1000
Antimony, Total (Federal)	ug/L	AP-3A	05/06/2024	ND	1.0000		2.1000
Antimony, Total (Federal)	ug/L	AP-4A	05/06/2024	ND	1.0000		2.1000
Antimony, Total (Federal)	ug/L	AP-4B	05/08/2024	ND	1.0000		2.1000
Antimony, Total (Federal)	ug/L	AP-4I	05/06/2024	ND	1.0000		2.1000
Antimony, Total (Federal)	ug/L	AP-5	05/08/2024	ND	1.0000		2.1000
Antimony, Total (Federal)	ug/L	AP-5A	05/08/2024	ND	1.0000		2.1000
Antimony, Total (Federal)	ug/L	AP-6A	05/08/2024	ND	1.0000		2.1000
Antimony, Total (Federal)	ug/L	AP-6B	05/12/2024	ND	1.0000		2.1000
Antimony, Total (Federal)	ug/L	AP-7	05/09/2024	ND	1.0000		2.1000
Antimony, Total (Federal)	ug/L	AP-8	05/09/2024	ND	1.0000		2.1000
Arsenic, Total (Federal)	ug/L	AP-1R	05/05/2024		1.5000		234.0000
Arsenic, Total (Federal)	ug/L	AP-2A	05/07/2024		1560.0000	***	234.0000
Arsenic, Total (Federal)	ug/L	AP-2BO	05/07/2024		5.8000		234.0000
Arsenic, Total (Federal)	ug/L	AP-3	05/05/2024	ND	1.0000		234.0000
Arsenic, Total (Federal)	ug/L	AP-3A	05/06/2024		1.6000		234.0000
Arsenic, Total (Federal)	ug/L	AP-4A	05/06/2024	ND	1.0000		234.0000
Arsenic, Total (Federal)	ug/L	AP-4B	05/08/2024	ND	1.0000		234.0000
Arsenic, Total (Federal)	ug/L	AP-4I	05/06/2024	ND	1.0000		234.0000
Arsenic, Total (Federal)	ug/L	AP-5	05/08/2024	ND	1.0000		234.0000
Arsenic, Total (Federal)	ug/L	AP-5A	05/08/2024	ND	1.0000		234.0000
Arsenic, Total (Federal)	ug/L	AP-6A	05/08/2024	ND	1.0000		234.0000
Arsenic, Total (Federal)	ug/L	AP-6B	05/12/2024	ND	1.0000		234.0000
Arsenic, Total (Federal)	ug/L	AP-7	05/09/2024		1.7000		234.0000
Arsenic, Total (Federal)	ug/L	AP-8	05/09/2024		7.8000		234.0000
Barium, Total (Federal)	ug/L	AP-1R	05/05/2024		61.7000		80.4000
Barium, Total (Federal)	ug/L	AP-2A	05/07/2024		48.5000		80.4000
Barium, Total (Federal)	ug/L	AP-2BO	05/07/2024		23.8000		80.4000
Barium, Total (Federal)	ug/L	AP-3	05/05/2024		28.2000		80.4000
Barium, Total (Federal)	ug/L	AP-3A	05/06/2024		32.7000		80.4000
Barium, Total (Federal)	ug/L	AP-4A	05/06/2024		28.3000		80.4000
Barium, Total (Federal)	ug/L	AP-4B	05/08/2024		99.2000	***	80.4000
Barium, Total (Federal)	ug/L	AP-4I	05/06/2024		24.5000		80.4000
Barium, Total (Federal)	ug/L	AP-5	05/08/2024		20.7000		80.4000
Barium, Total (Federal)	ug/L	AP-5A	05/08/2024		23.8000		80.4000
Barium, Total (Federal)	ug/L	AP-6A	05/08/2024		21.6000		80.4000

* - Current value failed - awaiting verification.
** - Current value passed - previous exceedance not verified.
*** - Current value failed - exceedance verified.
**** - Current value passed - awaiting one more verification.
***** - Insufficient background data to compute prediction limit.
ND = Not Detected, Result = detection limit.

Table C-2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Barium, Total (Federal)	ug/L	AP-6B	05/12/2024		23.4000		80.4000
Barium, Total (Federal)	ug/L	AP-7	05/09/2024		78.9000	**	80.4000
Barium, Total (Federal)	ug/L	AP-8	05/09/2024		21.1000		80.4000
Beryllium, Total (Federal)	ug/L	AP-1R	05/05/2024	ND	0.2000		0.6500
Beryllium, Total (Federal)	ug/L	AP-2A	05/07/2024	ND	0.2000		0.6500
Beryllium, Total (Federal)	ug/L	AP-2BO	05/07/2024	ND	0.2000		0.6500
Beryllium, Total (Federal)	ug/L	AP-3	05/05/2024	ND	0.2000		0.6500
Beryllium, Total (Federal)	ug/L	AP-3A	05/06/2024	ND	0.2000		0.6500
Beryllium, Total (Federal)	ug/L	AP-4A	05/06/2024	ND	0.2000		0.6500
Beryllium, Total (Federal)	ug/L	AP-4B	05/08/2024	ND	0.2000		0.6500
Beryllium, Total (Federal)	ug/L	AP-4I	05/06/2024	ND	0.2000		0.6500
Beryllium, Total (Federal)	ug/L	AP-5	05/08/2024	ND	0.2000		0.6500
Beryllium, Total (Federal)	ug/L	AP-5A	05/08/2024	ND	0.2000		0.6500
Beryllium, Total (Federal)	ug/L	AP-6A	05/08/2024	ND	0.2000		0.6500
Beryllium, Total (Federal)	ug/L	AP-6B	05/12/2024	ND	0.2000		0.6500
Beryllium, Total (Federal)	ug/L	AP-7	05/09/2024	ND	0.2000		0.6500
Beryllium, Total (Federal)	ug/L	AP-8	05/09/2024		2.1000	***	0.6500
Cadmium, Total (Federal)	ug/L	AP-1R	05/05/2024	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-2A	05/07/2024		4.3000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-2BO	05/07/2024	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-3	05/05/2024	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-3A	05/06/2024	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-4A	05/06/2024	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-4B	05/08/2024	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-4I	05/06/2024	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-5	05/08/2024	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-5A	05/08/2024	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-6A	05/08/2024	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-6B	05/12/2024	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-7	05/09/2024	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-8	05/09/2024		6.2000	***	2.0000
Chromium, Total (Federal)	ug/L	AP-1R	05/05/2024	ND	10.0000		10.0000
Chromium, Total (Federal)	ug/L	AP-2A	05/07/2024	ND	10.0000		10.0000
Chromium, Total (Federal)	ug/L	AP-2BO	05/07/2024	ND	10.0000		10.0000
Chromium, Total (Federal)	ug/L	AP-3	05/05/2024	ND	10.0000		10.0000
Chromium, Total (Federal)	ug/L	AP-3A	05/06/2024	ND	10.0000		10.0000
Chromium, Total (Federal)	ug/L	AP-4A	05/06/2024	ND	10.0000		10.0000
Chromium, Total (Federal)	ug/L	AP-4B	05/08/2024	ND	10.0000		10.0000
Chromium, Total (Federal)	ug/L	AP-4I	05/06/2024	ND	10.0000		10.0000

* - Current value failed - awaiting verification.
** - Current value passed - previous exceedance not verified.
*** - Current value failed - exceedance verified.
**** - Current value passed - awaiting one more verification.
***** - Insufficient background data to compute prediction limit.
ND = Not Detected, Result = detection limit.

Table C-2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Chromium, Total (Federal)	ug/L	AP-5	05/08/2024	ND	10.0000		10.0000
Chromium, Total (Federal)	ug/L	AP-5A	05/08/2024	ND	10.0000		10.0000
Chromium, Total (Federal)	ug/L	AP-6A	05/08/2024	ND	10.0000		10.0000
Chromium, Total (Federal)	ug/L	AP-6B	05/12/2024	ND	10.0000		10.0000
Chromium, Total (Federal)	ug/L	AP-7	05/09/2024	ND	10.0000		10.0000
Chromium, Total (Federal)	ug/L	AP-8	05/09/2024	ND	10.0000		10.0000
Cobalt, Total (Federal)	ug/L	AP-1R	05/05/2024	ND	1.0000		3.7000
Cobalt, Total (Federal)	ug/L	AP-2A	05/07/2024	ND	1.0000		3.7000
Cobalt, Total (Federal)	ug/L	AP-2BO	05/07/2024		2.7000		3.7000
Cobalt, Total (Federal)	ug/L	AP-3	05/05/2024	ND	1.0000		3.7000
Cobalt, Total (Federal)	ug/L	AP-3A	05/06/2024	ND	1.0000		3.7000
Cobalt, Total (Federal)	ug/L	AP-4A	05/06/2024	ND	1.0000		3.7000
Cobalt, Total (Federal)	ug/L	AP-4B	05/08/2024	ND	1.0000		3.7000
Cobalt, Total (Federal)	ug/L	AP-4I	05/06/2024		2.1000		3.7000
Cobalt, Total (Federal)	ug/L	AP-5	05/08/2024	ND	1.0000		3.7000
Cobalt, Total (Federal)	ug/L	AP-5A	05/08/2024	ND	1.0000		3.7000
Cobalt, Total (Federal)	ug/L	AP-6A	05/08/2024	ND	1.0000		3.7000
Cobalt, Total (Federal)	ug/L	AP-6B	05/12/2024	ND	1.0000		3.7000
Cobalt, Total (Federal)	ug/L	AP-7	05/09/2024	ND	1.0000		3.7000
Cobalt, Total (Federal)	ug/L	AP-8	05/09/2024		415.0000	***	3.7000
Fluoride (Federal)	mg/L	AP-1R	05/05/2024	ND	0.1000		0.3500
Fluoride (Federal)	mg/L	AP-2A	05/07/2024		0.2000		0.3500
Fluoride (Federal)	mg/L	AP-2BO	05/07/2024	ND	0.1000		0.3500
Fluoride (Federal)	mg/L	AP-3	05/05/2024	ND	0.1000		0.3500
Fluoride (Federal)	mg/L	AP-3A	05/06/2024	ND	0.1000		0.3500
Fluoride (Federal)	mg/L	AP-4A	05/06/2024	ND	0.1000		0.3500
Fluoride (Federal)	mg/L	AP-4B	05/08/2024	ND	0.1000		0.3500
Fluoride (Federal)	mg/L	AP-4I	05/06/2024		0.1800		0.3500
Fluoride (Federal)	mg/L	AP-5	05/08/2024		0.1400		0.3500
Fluoride (Federal)	mg/L	AP-5A	05/08/2024	ND	0.1000		0.3500
Fluoride (Federal)	mg/L	AP-6A	05/08/2024	ND	0.1000		0.3500
Fluoride (Federal)	mg/L	AP-6B	05/12/2024		0.1300		0.3500
Fluoride (Federal)	mg/L	AP-7	05/09/2024		0.1400		0.3500
Fluoride (Federal)	mg/L	AP-8	05/09/2024		0.8100	***	0.3500
Lead, Total (Federal)	ug/L	AP-1R	05/05/2024	ND	10.0000		47.8000
Lead, Total (Federal)	ug/L	AP-2A	05/07/2024	ND	10.0000		47.8000
Lead, Total (Federal)	ug/L	AP-2BO	05/07/2024	ND	10.0000		47.8000
Lead, Total (Federal)	ug/L	AP-3	05/05/2024	ND	10.0000		47.8000
Lead, Total (Federal)	ug/L	AP-3A	05/06/2024	ND	10.0000		47.8000

* - Current value failed - awaiting verification.
** - Current value passed - previous exceedance not verified.
*** - Current value failed - exceedance verified.
**** - Current value passed - awaiting one more verification.
***** - Insufficient background data to compute prediction limit.
ND = Not Detected, Result = detection limit.

Table C-2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Lead, Total (Federal)	ug/L	AP-4A	05/06/2024	ND	10.0000		47.8000
Lead, Total (Federal)	ug/L	AP-4B	05/08/2024	ND	10.0000		47.8000
Lead, Total (Federal)	ug/L	AP-4I	05/06/2024	ND	10.0000		47.8000
Lead, Total (Federal)	ug/L	AP-5	05/08/2024	ND	10.0000		47.8000
Lead, Total (Federal)	ug/L	AP-5A	05/08/2024	ND	10.0000		47.8000
Lead, Total (Federal)	ug/L	AP-6A	05/08/2024	ND	10.0000		47.8000
Lead, Total (Federal)	ug/L	AP-6B	05/12/2024	ND	10.0000		47.8000
Lead, Total (Federal)	ug/L	AP-7	05/09/2024	ND	10.0000		47.8000
Lead, Total (Federal)	ug/L	AP-8	05/09/2024	ND	10.0000		47.8000
Lithium, Total (Federal)	ug/L	AP-1R	05/05/2024	ND	20.0000		2687.6481
Lithium, Total (Federal)	ug/L	AP-2A	05/07/2024		66.8000		2687.6481
Lithium, Total (Federal)	ug/L	AP-2BO	05/07/2024	ND	20.0000		2687.6481
Lithium, Total (Federal)	ug/L	AP-3	05/05/2024	ND	20.0000		2687.6481
Lithium, Total (Federal)	ug/L	AP-3A	05/06/2024	ND	20.0000		2687.6481
Lithium, Total (Federal)	ug/L	AP-4A	05/06/2024		35.2000		2687.6481
Lithium, Total (Federal)	ug/L	AP-4B	05/08/2024	ND	20.0000		2687.6481
Lithium, Total (Federal)	ug/L	AP-4I	05/06/2024	ND	20.0000		2687.6481
Lithium, Total (Federal)	ug/L	AP-5	05/08/2024	ND	20.0000		2687.6481
Lithium, Total (Federal)	ug/L	AP-5A	05/08/2024	ND	20.0000		2687.6481
Lithium, Total (Federal)	ug/L	AP-6A	05/08/2024	ND	20.0000		2687.6481
Lithium, Total (Federal)	ug/L	AP-6B	05/12/2024	ND	20.0000		2687.6481
Lithium, Total (Federal)	ug/L	AP-7	05/09/2024	ND	20.0000		2687.6481
Lithium, Total (Federal)	ug/L	AP-8	05/09/2024		43.6000		2687.6481
Mercury, total (Federal)	ug/L	AP-1R	05/05/2024	ND	0.2000		0.3500
Mercury, total (Federal)	ug/L	AP-2A	05/07/2024	ND	0.2000		0.3500
Mercury, total (Federal)	ug/L	AP-2BO	05/07/2024	ND	0.2000		0.3500
Mercury, total (Federal)	ug/L	AP-3	05/05/2024	ND	0.2000		0.3500
Mercury, total (Federal)	ug/L	AP-3A	05/06/2024	ND	0.2000		0.3500
Mercury, total (Federal)	ug/L	AP-4A	05/06/2024	ND	0.2000		0.3500
Mercury, total (Federal)	ug/L	AP-4B	05/08/2024	ND	0.2000		0.3500
Mercury, total (Federal)	ug/L	AP-4I	05/06/2024	ND	0.2000		0.3500
Mercury, total (Federal)	ug/L	AP-5	05/08/2024	ND	0.2000		0.3500
Mercury, total (Federal)	ug/L	AP-5A	05/08/2024	ND	0.2000		0.3500
Mercury, total (Federal)	ug/L	AP-6A	05/08/2024	ND	0.2000		0.3500
Mercury, total (Federal)	ug/L	AP-6B	05/12/2024	ND	0.2000		0.3500
Mercury, total (Federal)	ug/L	AP-7	05/09/2024	ND	0.2000		0.3500
Mercury, total (Federal)	ug/L	AP-8	05/09/2024	ND	0.2000		0.3500
Molybdenum, Total (Federal)	ug/L	AP-1R	05/05/2024		13.0000		660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	05/07/2024		1120.0000	***	660.0000

* - Current value failed - awaiting verification.
** - Current value passed - previous exceedance not verified.
*** - Current value failed - exceedance verified.
**** - Current value passed - awaiting one more verification.
***** - Insufficient background data to compute prediction limit.
ND = Not Detected, Result = detection limit.

Table C-2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Molybdenum, Total (Federal)	ug/L	AP-2BO	05/07/2024		574.0000		660.0000
Molybdenum, Total (Federal)	ug/L	AP-3	05/05/2024	ND	10.0000		660.0000
Molybdenum, Total (Federal)	ug/L	AP-3A	05/06/2024		517.0000		660.0000
Molybdenum, Total (Federal)	ug/L	AP-4A	05/06/2024		215.0000		660.0000
Molybdenum, Total (Federal)	ug/L	AP-4B	05/08/2024	ND	10.0000		660.0000
Molybdenum, Total (Federal)	ug/L	AP-4I	05/06/2024		83.3000		660.0000
Molybdenum, Total (Federal)	ug/L	AP-5	05/08/2024		39.0000		660.0000
Molybdenum, Total (Federal)	ug/L	AP-5A	05/08/2024		455.0000		660.0000
Molybdenum, Total (Federal)	ug/L	AP-6A	05/08/2024	ND	10.0000		660.0000
Molybdenum, Total (Federal)	ug/L	AP-6B	05/12/2024	ND	10.0000		660.0000
Molybdenum, Total (Federal)	ug/L	AP-7	05/09/2024	ND	10.0000		660.0000
Molybdenum, Total (Federal)	ug/L	AP-8	05/09/2024	ND	10.0000		660.0000
Selenium, Total (Federal)	ug/L	AP-1R	05/05/2024	ND	1.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-2A	05/07/2024		2.3000		5.9000
Selenium, Total (Federal)	ug/L	AP-2BO	05/07/2024	ND	1.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-3	05/05/2024	ND	1.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-3A	05/06/2024	ND	1.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-4A	05/06/2024	ND	1.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-4B	05/08/2024		17.2000	***	5.9000
Selenium, Total (Federal)	ug/L	AP-4I	05/06/2024	ND	1.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-5	05/08/2024		2.4000		5.9000
Selenium, Total (Federal)	ug/L	AP-5A	05/08/2024	ND	1.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-6A	05/08/2024	ND	1.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	05/12/2024		5.0000	**	5.9000
Selenium, Total (Federal)	ug/L	AP-7	05/09/2024	ND	1.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-8	05/09/2024		1.3000		5.9000
Thallium, Total (Federal)	ug/L	AP-1R	05/05/2024	ND	1.0000		2.3000
Thallium, Total (Federal)	ug/L	AP-2A	05/07/2024	ND	1.0000		2.3000
Thallium, Total (Federal)	ug/L	AP-2BO	05/07/2024	ND	1.0000		2.3000
Thallium, Total (Federal)	ug/L	AP-3	05/05/2024	ND	1.0000		2.3000
Thallium, Total (Federal)	ug/L	AP-3A	05/06/2024	ND	1.0000		2.3000
Thallium, Total (Federal)	ug/L	AP-4A	05/06/2024	ND	1.0000		2.3000
Thallium, Total (Federal)	ug/L	AP-4B	05/08/2024	ND	1.0000		2.3000
Thallium, Total (Federal)	ug/L	AP-4I	05/06/2024	ND	1.0000		2.3000
Thallium, Total (Federal)	ug/L	AP-5	05/08/2024	ND	1.0000		2.3000
Thallium, Total (Federal)	ug/L	AP-5A	05/08/2024	ND	1.0000		2.3000
Thallium, Total (Federal)	ug/L	AP-6A	05/08/2024	ND	1.0000		2.3000
Thallium, Total (Federal)	ug/L	AP-6B	05/12/2024	ND	1.0000		2.3000
Thallium, Total (Federal)	ug/L	AP-7	05/09/2024	ND	1.0000		2.3000

* - Current value failed - awaiting verification.
** - Current value passed - previous exceedance not verified.
*** - Current value failed - exceedance verified.
**** - Current value passed - awaiting one more verification.
***** - Insufficient background data to compute prediction limit.
ND = Not Detected, Result = detection limit.

Table C-2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Thallium, Total (Federal)	ug/L	AP-8	05/09/2024	ND	1.0000		2.3000
Total Radium (Federal)	pCi/L	AP-1R	05/05/2024	ND	1.9700		3.6665
Total Radium (Federal)	pCi/L	AP-2A	05/07/2024		1.8600		3.6665
Total Radium (Federal)	pCi/L	AP-2BO	05/07/2024	ND	2.1500		3.6665
Total Radium (Federal)	pCi/L	AP-3	05/05/2024	ND	2.1400		3.6665
Total Radium (Federal)	pCi/L	AP-3A	05/06/2024		1.0300		3.6665
Total Radium (Federal)	pCi/L	AP-4A	05/06/2024		1.6800		3.6665
Total Radium (Federal)	pCi/L	AP-4B	05/08/2024	ND	1.7300		3.6665
Total Radium (Federal)	pCi/L	AP-4I	05/06/2024		0.8970		3.6665
Total Radium (Federal)	pCi/L	AP-5	05/08/2024	ND	1.6300		3.6665
Total Radium (Federal)	pCi/L	AP-5A	05/08/2024		1.4800		3.6665
Total Radium (Federal)	pCi/L	AP-6A	05/08/2024		1.0400		3.6665
Total Radium (Federal)	pCi/L	AP-6B	05/12/2024	ND	1.9700		3.6665
Total Radium (Federal)	pCi/L	AP-7	05/09/2024	ND	1.3800		3.6665
Total Radium (Federal)	pCi/L	AP-8	05/09/2024		1.1800		3.6665

* - Current value failed - awaiting verification.
** - Current value passed - previous exceedance not verified.
*** - Current value failed - exceedance verified.
**** - Current value passed - awaiting one more verification.
***** - Insufficient background data to compute prediction limit.
ND = Not Detected, Result = detection limit.

Table C-3

Detection Frequencies in Upgradient and Downgradient Wells

Constituent	Detect	Upgradient N	Proportion	Detect	Downgradient N	Proportion
Antimony, Total (Federal)	2	66	0.030	9	294	0.031
Arsenic, Total (Federal)	30	69	0.435	103	308	0.334
Barium, Total (Federal)	69	69	1.000	307	308	0.997
Beryllium, Total (Federal)	0	66	0.000	13	294	0.044
Cadmium, Total (Federal)	2	66	0.030	24	308	0.078
Chromium, Total (Federal)	0	57	0.000	2	238	0.008
Cobalt, Total (Federal)	29	35	0.829	62	308	0.201
Fluoride (Federal)	17	42	0.405	76	308	0.247
Lead, Total (Federal)	1	66	0.015	7	294	0.024
Lithium, Total (Federal)	69	69	1.000	71	308	0.231
Mercury, total (Federal)	1	54	0.019	2	224	0.009
Molybdenum, Total (Federal)	34	69	0.493	164	308	0.532
Selenium, Total (Federal)	4	69	0.058	63	308	0.205
Thallium, Total (Federal)	1	66	0.015	0	291	0.000
Total Radium (Federal)	53	64	0.828	234	307	0.762

N = Total number of measurements in all wells.
Detect = Total number of detections in all wells.
Proportion = Detect/N.

Table C-4

Shapiro-Wilk Multiple Group Test of Normality

Constituent	Detect	N	Detect Freq	G raw	G log	G cbrt	G sqrt	G sqr	G cub	Crit Value	Dist Form	Model Type
Antimony, Total (Federal)	2	66	0.030	9.346	9.346					2.326	non-norm	nonpar
Arsenic, Total (Federal)	30	69	0.435	13.964	9.832					2.326	non-norm	nonpar
Barium, Total (Federal)	69	69	1.000	5.031	4.007					2.326	non-norm	nonpar
Beryllium, Total (Federal)	0	66	0.000	9.346	9.346					2.326	non-norm	nonpar
Cadmium, Total (Federal)	2	66	0.030	11.096	11.188					2.326	non-norm	nonpar
Chromium, Total (Federal)	0	57	0.000	8.695	8.695					2.326	non-norm	nonpar
Cobalt, Total (Federal)	29	35	0.829	2.953	4.662					2.326	non-norm	nonpar
Fluoride (Federal)	17	42	0.405	8.128	7.370					2.326	non-norm	nonpar
Lead, Total (Federal)	1	66	0.015	9.346	9.346					2.326	non-norm	nonpar
Lithium, Total (Federal)	69	69	1.000	0.157	0.362					2.326	normal	normal
Mercury, total (Federal)	1	54	0.019	18.388	18.388					2.326	non-norm	nonpar
Molybdenum, Total (Federal)	34	69	0.493	8.767	8.524					2.326	non-norm	nonpar
Selenium, Total (Federal)	4	69	0.058	10.896	10.623					2.326	non-norm	nonpar
Thallium, Total (Federal)	1	66	0.015	19.794	19.794					2.326	non-norm	nonpar
Total Radium (Federal)	53	64	0.828	5.173	1.970					2.326	lognor	lognor

* - Distribution override for that constituent.
Fit to distribution is confirmed if G <= critical value.
Model type may not match distributional form when detection frequency < 50%.

Table C-5

Summary Statistics and Prediction Limits

Constituent	Units	Detect	N	Mean	SD	alpha	Factor	Pred Limit	Type		Conf
Antimony, Total (Federal)	ug/L	2	66					2.1000	nonpar		0.99
Arsenic, Total (Federal)	ug/L	30	69					234.0000	nonpar		0.99
Barium, Total (Federal)	ug/L	69	69					80.4000	nonpar		0.99
Beryllium, Total (Federal)	ug/L	0	66					0.6500	nonpar	***	0.99
Cadmium, Total (Federal)	ug/L	2	66					2.0000	nonpar	***	0.99
Chromium, Total (Federal)	ug/L	0	57					10.0000	nonpar	***	0.99
Cobalt, Total (Federal)	ug/L	29	35					3.7000	nonpar		0.98
Fluoride (Federal)	mg/L	17	42					0.3500	nonpar		0.99
Lead, Total (Federal)	ug/L	1	66					47.8000	nonpar		0.99
Lithium, Total (Federal)	ug/L	69	69	987.5072	708.5024	0.0100	2.3996	2687.6481	normal		
Mercury, total (Federal)	ug/L	1	54					0.3500	nonpar		0.99
Molybdenum, Total (Federal)	ug/L	34	69					660.0000	nonpar		0.99
Selenium, Total (Federal)	ug/L	4	69					5.9000	nonpar		0.99
Thallium, Total (Federal)	ug/L	1	66					2.3000	nonpar		0.99
Total Radium (Federal)	pCi/L	53	64	0.2939	0.4179	0.0100	2.4056	3.6665	lognor		

Conf = confidence level for passing initial test or one verification resample at all downgradient wells for a single constituent (nonparametric test only).
* - Insufficient Data.
** - Calculated limit raised to Manual Reporting Limit.
*** - Nonparametric limit based on ND value.
For transformed data, mean and SD in transformed units and prediction limit in original units.
All sample sizes and statistics are based on outlier free data.
For nonparametric limits, median reporting limits are substituted for extreme reporting limit values.

Table C-6

Dixon's Test Outliers
1% Significance Level

Constituent	Units	Well	Date	Result	ND Qualifier	Date Range	N	Critical Value
Cobalt, Total (Federal)	ug/L	MW-4C	09/12/2018	3.6000	< 3.6000	09/28/2016-05/12/2024	12	0.6425

N = Total number of independent measurements in background at each well.
Date Range = Dates of the first and last measurements included in background at each well.
Critical Value depends on the significance level and on N-1 when the two most extreme values are tested or N for the most extreme value.

Table C-7

Historical Downgradient Data for Constituent-Well Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

Constituent	Units	Well	Date		Result		Pred. Limit
Antimony, Total (Federal)	ug/L	AP-2A	09/28/2016		0.4400		2.1000
Antimony, Total (Federal)	ug/L	AP-2A	10/19/2016	ND	50.0000		2.1000
Antimony, Total (Federal)	ug/L	AP-2A	11/09/2016	ND	50.0000		2.1000
Antimony, Total (Federal)	ug/L	AP-2A	12/12/2016	ND	5.0000		2.1000
Antimony, Total (Federal)	ug/L	AP-2A	02/05/2017	ND	6.0000		2.1000
Antimony, Total (Federal)	ug/L	AP-2A	03/24/2017	ND	6.0000		2.1000
Antimony, Total (Federal)	ug/L	AP-2A	05/24/2017	ND	6.0000		2.1000
Antimony, Total (Federal)	ug/L	AP-2A	06/21/2017	ND	6.0000		2.1000
Antimony, Total (Federal)	ug/L	AP-2A	08/10/2017	ND	6.0000		2.1000
Antimony, Total (Federal)	ug/L	AP-2A	05/09/2018	ND	5.0000		2.1000
Antimony, Total (Federal)	ug/L	AP-2A	09/30/2018	ND	1.4000		2.1000
Antimony, Total (Federal)	ug/L	AP-2A	05/15/2019	ND	1.0000		2.1000
Antimony, Total (Federal)	ug/L	AP-2A	11/05/2019	ND	1.0000		2.1000
Antimony, Total (Federal)	ug/L	AP-2A	05/11/2020		2.0000		2.1000
Antimony, Total (Federal)	ug/L	AP-2A	11/09/2020	ND	1.0000		2.1000
Antimony, Total (Federal)	ug/L	AP-2A	05/08/2021	ND	1.0000		2.1000
Antimony, Total (Federal)	ug/L	AP-2A	11/04/2021	ND	1.0000		2.1000
Antimony, Total (Federal)	ug/L	AP-2A	05/12/2022		3.1000	*	2.1000
Antimony, Total (Federal)	ug/L	AP-2A	11/02/2022	ND	1.0000		2.1000
Antimony, Total (Federal)	ug/L	AP-2A	05/04/2023	ND	1.0000		2.1000
Antimony, Total (Federal)	ug/L	AP-2A	05/07/2024		4.3000	*	2.1000
Arsenic, Total (Federal)	ug/L	AP-2A	09/28/2016		2.1000		234.0000
Arsenic, Total (Federal)	ug/L	AP-2A	10/19/2016	ND	10.0000		234.0000
Arsenic, Total (Federal)	ug/L	AP-2A	11/09/2016		9.2000		234.0000
Arsenic, Total (Federal)	ug/L	AP-2A	12/12/2016	ND	5.0000		234.0000
Arsenic, Total (Federal)	ug/L	AP-2A	02/05/2017	ND	10.0000		234.0000
Arsenic, Total (Federal)	ug/L	AP-2A	03/24/2017	ND	10.0000		234.0000
Arsenic, Total (Federal)	ug/L	AP-2A	05/24/2017	ND	10.0000		234.0000
Arsenic, Total (Federal)	ug/L	AP-2A	06/21/2017	ND	10.0000		234.0000
Arsenic, Total (Federal)	ug/L	AP-2A	08/10/2017	ND	10.0000		234.0000
Arsenic, Total (Federal)	ug/L	AP-2A	05/09/2018		52.0000		234.0000
Arsenic, Total (Federal)	ug/L	AP-2A	09/30/2018		44.0000		234.0000
Arsenic, Total (Federal)	ug/L	AP-2A	05/15/2019		3.8000		234.0000
Arsenic, Total (Federal)	ug/L	AP-2A	11/05/2019		5.6000		234.0000
Arsenic, Total (Federal)	ug/L	AP-2A	05/11/2020		6.5000		234.0000
Arsenic, Total (Federal)	ug/L	AP-2A	11/09/2020		4.6000		234.0000
Arsenic, Total (Federal)	ug/L	AP-2A	05/08/2021		2.7000		234.0000
Arsenic, Total (Federal)	ug/L	AP-2A	11/04/2021		3.6000		234.0000

* - Significantly increased over background.
** - Detect at limit for 100% NDs in background (NPPL only).
*** - Manual exclusion.
ND = Not Detected, Result = detection limit.

Table C-7

Historical Downgradient Data for Constituent-Well Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

Constituent	Units	Well	Date		Result		Pred. Limit
Arsenic, Total (Federal)	ug/L	AP-2A	05/12/2022		16.0000		234.0000
Arsenic, Total (Federal)	ug/L	AP-2A	11/02/2022		23.0000		234.0000
Arsenic, Total (Federal)	ug/L	AP-2A	05/04/2023		142.0000		234.0000
Arsenic, Total (Federal)	ug/L	AP-2A	11/07/2023		1580.0000	*	234.0000
Arsenic, Total (Federal)	ug/L	AP-2A	05/07/2024		1560.0000	*	234.0000
Barium, Total (Federal)	ug/L	AP-4B	09/29/2016		62.0000		80.4000
Barium, Total (Federal)	ug/L	AP-4B	10/18/2016		56.0000		80.4000
Barium, Total (Federal)	ug/L	AP-4B	11/08/2016		61.0000		80.4000
Barium, Total (Federal)	ug/L	AP-4B	12/13/2016		45.0000		80.4000
Barium, Total (Federal)	ug/L	AP-4B	02/04/2017		78.0000		80.4000
Barium, Total (Federal)	ug/L	AP-4B	03/23/2017		63.0000		80.4000
Barium, Total (Federal)	ug/L	AP-4B	05/24/2017		53.0000		80.4000
Barium, Total (Federal)	ug/L	AP-4B	06/21/2017		51.0000		80.4000
Barium, Total (Federal)	ug/L	AP-4B	08/09/2017		74.0000		80.4000
Barium, Total (Federal)	ug/L	AP-4B	05/08/2018		81.0000	*	80.4000
Barium, Total (Federal)	ug/L	AP-4B	09/30/2018		44.0000		80.4000
Barium, Total (Federal)	ug/L	AP-4B	05/14/2019		87.5000	*	80.4000
Barium, Total (Federal)	ug/L	AP-4B	11/04/2019		68.5000		80.4000
Barium, Total (Federal)	ug/L	AP-4B	05/07/2020		107.0000	*	80.4000
Barium, Total (Federal)	ug/L	AP-4B	11/07/2020		70.8000		80.4000
Barium, Total (Federal)	ug/L	AP-4B	05/10/2021		100.0000	*	80.4000
Barium, Total (Federal)	ug/L	AP-4B	11/07/2021		108.0000	*	80.4000
Barium, Total (Federal)	ug/L	AP-4B	05/15/2022		97.5000	*	80.4000
Barium, Total (Federal)	ug/L	AP-4B	11/03/2022		120.0000	*	80.4000
Barium, Total (Federal)	ug/L	AP-4B	05/03/2023		99.9000	*	80.4000
Barium, Total (Federal)	ug/L	AP-4B	11/15/2023		105.0000	*	80.4000
Barium, Total (Federal)	ug/L	AP-4B	05/08/2024		99.2000	*	80.4000
Barium, Total (Federal)	ug/L	AP-7	09/28/2016		49.0000		80.4000
Barium, Total (Federal)	ug/L	AP-7	10/19/2016		56.0000		80.4000
Barium, Total (Federal)	ug/L	AP-7	11/09/2016		54.0000		80.4000
Barium, Total (Federal)	ug/L	AP-7	12/12/2016		45.0000		80.4000
Barium, Total (Federal)	ug/L	AP-7	02/05/2017		53.0000		80.4000
Barium, Total (Federal)	ug/L	AP-7	03/25/2017		47.0000		80.4000
Barium, Total (Federal)	ug/L	AP-7	05/24/2017		52.0000		80.4000
Barium, Total (Federal)	ug/L	AP-7	06/21/2017		47.0000		80.4000
Barium, Total (Federal)	ug/L	AP-7	08/08/2017		50.0000		80.4000
Barium, Total (Federal)	ug/L	AP-7	05/09/2018		56.0000		80.4000
Barium, Total (Federal)	ug/L	AP-7	09/30/2018		48.0000		80.4000

* - Significantly increased over background.
** - Detect at limit for 100% NDs in background (NPPL only).
*** - Manual exclusion.
ND = Not Detected, Result = detection limit.

Table C-7

Historical Downgradient Data for Constituent-Well Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

Constituent	Units	Well	Date		Result		Pred. Limit
Barium, Total (Federal)	ug/L	AP-7	05/15/2019		69.2000		80.4000
Barium, Total (Federal)	ug/L	AP-7	11/05/2019		53.4000		80.4000
Barium, Total (Federal)	ug/L	AP-7	05/12/2020		66.8000		80.4000
Barium, Total (Federal)	ug/L	AP-7	11/05/2020		67.8000		80.4000
Barium, Total (Federal)	ug/L	AP-7	05/08/2021		79.5000		80.4000
Barium, Total (Federal)	ug/L	AP-7	11/03/2021		81.2000	*	80.4000
Barium, Total (Federal)	ug/L	AP-7	05/12/2022		82.2000	*	80.4000
Barium, Total (Federal)	ug/L	AP-7	11/03/2022		76.8000		80.4000
Barium, Total (Federal)	ug/L	AP-7	05/04/2023		101.0000	*	80.4000
Barium, Total (Federal)	ug/L	AP-7	11/12/2023		84.8000	*	80.4000
Barium, Total (Federal)	ug/L	AP-7	05/09/2024		78.9000		80.4000
Beryllium, Total (Federal)	ug/L	AP-8	09/28/2016	ND	10.0000		0.6500
Beryllium, Total (Federal)	ug/L	AP-8	10/19/2016	ND	10.0000		0.6500
Beryllium, Total (Federal)	ug/L	AP-8	11/09/2016	ND	10.0000		0.6500
Beryllium, Total (Federal)	ug/L	AP-8	12/12/2016	ND	10.0000		0.6500
Beryllium, Total (Federal)	ug/L	AP-8	02/05/2017	ND	4.0000		0.6500
Beryllium, Total (Federal)	ug/L	AP-8	03/25/2017	ND	4.0000		0.6500
Beryllium, Total (Federal)	ug/L	AP-8	05/24/2017	ND	2.0000		0.6500
Beryllium, Total (Federal)	ug/L	AP-8	06/20/2017		2.1000	*	0.6500
Beryllium, Total (Federal)	ug/L	AP-8	08/08/2017		2.4000	*	0.6500
Beryllium, Total (Federal)	ug/L	AP-8	05/09/2018	ND	5.0000		0.6500
Beryllium, Total (Federal)	ug/L	AP-8	09/30/2018		3.5000	*	0.6500
Beryllium, Total (Federal)	ug/L	AP-8	05/15/2019		1.9000	*	0.6500
Beryllium, Total (Federal)	ug/L	AP-8	11/04/2019		2.0000	*	0.6500
Beryllium, Total (Federal)	ug/L	AP-8	05/11/2020		1.5000	*	0.6500
Beryllium, Total (Federal)	ug/L	AP-8	11/05/2020		2.2000	*	0.6500
Beryllium, Total (Federal)	ug/L	AP-8	05/07/2021		6.5000	*	0.6500
Beryllium, Total (Federal)	ug/L	AP-8	12/09/2021		1.8000	*	0.6500
Beryllium, Total (Federal)	ug/L	AP-8	05/12/2022		4.2000	*	0.6500
Beryllium, Total (Federal)	ug/L	AP-8	11/03/2022		6.8000	*	0.6500
Beryllium, Total (Federal)	ug/L	AP-8	05/04/2023		4.7000	*	0.6500
Beryllium, Total (Federal)	ug/L	AP-8	05/09/2024		2.1000	*	0.6500
Cadmium, Total (Federal)	ug/L	AP-2A	09/28/2016	ND	10.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-2A	10/19/2016	ND	10.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-2A	11/09/2016	ND	10.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-2A	12/12/2016	ND	10.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-2A	02/05/2017	ND	1.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-2A	03/24/2017	ND	1.0000		2.0000

* - Significantly increased over background.
** - Detect at limit for 100% NDs in background (NPPL only).
*** - Manual exclusion.
ND = Not Detected, Result = detection limit.

Table C-7

Historical Downgradient Data for Constituent-Well Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

Constituent	Units	Well	Date		Result		Pred. Limit
Cadmium, Total (Federal)	ug/L	AP-2A	05/24/2017	ND	1.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-2A	06/21/2017	ND	1.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-2A	08/10/2017	ND	1.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-2A	05/09/2018	ND	5.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-2A	09/30/2018	ND	0.5500		2.0000
Cadmium, Total (Federal)	ug/L	AP-2A	05/15/2019	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-2A	11/05/2019	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-2A	05/11/2020	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-2A	11/09/2020	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-2A	05/08/2021	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-2A	11/04/2021	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-2A	05/12/2022	ND	0.2000		2.0000
Cadmium, Total (Federal)	ug/L	AP-2A	11/02/2022	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-2A	05/04/2023	ND	0.2000		2.0000
Cadmium, Total (Federal)	ug/L	AP-2A	11/07/2023	ND	2.0000		2.0000
Cadmium, Total (Federal)	ug/L	AP-2A	05/07/2024		4.3000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	09/28/2016		16.0000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	10/19/2016		13.0000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	11/09/2016		12.0000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	12/12/2016		18.0000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	02/05/2017		15.0000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	03/25/2017		9.1000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	05/24/2017		6.8000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	06/20/2017		9.9000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	08/08/2017		11.0000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	05/09/2018		6.3000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	09/30/2018		14.0000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	05/15/2019		7.0000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	11/04/2019		8.6000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	05/11/2020		6.2000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	11/05/2020		6.7000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	05/07/2021		10.5000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	12/09/2021		4.2000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	05/12/2022		15.4000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	11/03/2022		24.0000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	05/04/2023		17.2000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	11/12/2023		4.0000	*	2.0000
Cadmium, Total (Federal)	ug/L	AP-8	05/09/2024		6.2000	*	2.0000

* - Significantly increased over background.
** - Detect at limit for 100% NDs in background (NPPL only).
*** - Manual exclusion.
ND = Not Detected, Result = detection limit.

Table C-7

Historical Downgradient Data for Constituent-Well Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

Constituent	Units	Well	Date		Result		Pred. Limit
Cobalt, Total (Federal)	ug/L	AP-8	09/28/2016		440.0000	*	3.7000
Cobalt, Total (Federal)	ug/L	AP-8	10/19/2016		370.0000	*	3.7000
Cobalt, Total (Federal)	ug/L	AP-8	11/09/2016		410.0000	*	3.7000
Cobalt, Total (Federal)	ug/L	AP-8	12/12/2016		500.0000	*	3.7000
Cobalt, Total (Federal)	ug/L	AP-8	02/05/2017		500.0000	*	3.7000
Cobalt, Total (Federal)	ug/L	AP-8	03/25/2017		350.0000	*	3.7000
Cobalt, Total (Federal)	ug/L	AP-8	05/24/2017		290.0000	*	3.7000
Cobalt, Total (Federal)	ug/L	AP-8	06/20/2017		400.0000	*	3.7000
Cobalt, Total (Federal)	ug/L	AP-8	08/08/2017		410.0000	*	3.7000
Cobalt, Total (Federal)	ug/L	AP-8	05/09/2018		260.0000	*	3.7000
Cobalt, Total (Federal)	ug/L	AP-8	09/30/2018		450.0000	*	3.7000
Cobalt, Total (Federal)	ug/L	AP-8	05/15/2019		295.0000	*	3.7000
Cobalt, Total (Federal)	ug/L	AP-8	11/04/2019		364.0000	*	3.7000
Cobalt, Total (Federal)	ug/L	AP-8	05/11/2020		258.0000	*	3.7000
Cobalt, Total (Federal)	ug/L	AP-8	11/05/2020		372.0000	*	3.7000
Cobalt, Total (Federal)	ug/L	AP-8	05/07/2021		677.0000	*	3.7000
Cobalt, Total (Federal)	ug/L	AP-8	12/09/2021		319.0000	*	3.7000
Cobalt, Total (Federal)	ug/L	AP-8	05/12/2022		663.0000	*	3.7000
Cobalt, Total (Federal)	ug/L	AP-8	11/03/2022		901.0000	*	3.7000
Cobalt, Total (Federal)	ug/L	AP-8	05/04/2023		771.0000	*	3.7000
Cobalt, Total (Federal)	ug/L	AP-8	11/12/2023		410.0000	*	3.7000
Cobalt, Total (Federal)	ug/L	AP-8	05/09/2024		415.0000	*	3.7000
Fluoride (Federal)	mg/L	AP-8	09/28/2016		0.7400	*	0.3500
Fluoride (Federal)	mg/L	AP-8	10/19/2016	ND	5.0000		0.3500
Fluoride (Federal)	mg/L	AP-8	11/09/2016		0.6100	*	0.3500
Fluoride (Federal)	mg/L	AP-8	12/12/2016	ND	5.0000		0.3500
Fluoride (Federal)	mg/L	AP-8	02/05/2017	ND	5.0000		0.3500
Fluoride (Federal)	mg/L	AP-8	03/25/2017	ND	5.0000		0.3500
Fluoride (Federal)	mg/L	AP-8	05/24/2017	ND	5.0000		0.3500
Fluoride (Federal)	mg/L	AP-8	06/20/2017	ND	5.0000		0.3500
Fluoride (Federal)	mg/L	AP-8	08/08/2017	ND	5.0000		0.3500
Fluoride (Federal)	mg/L	AP-8	05/09/2018	ND	5.0000		0.3500
Fluoride (Federal)	mg/L	AP-8	09/30/2018	ND	0.6000		0.3500
Fluoride (Federal)	mg/L	AP-8	05/15/2019		0.4500	*	0.3500
Fluoride (Federal)	mg/L	AP-8	11/04/2019		0.5700	*	0.3500
Fluoride (Federal)	mg/L	AP-8	05/11/2020		0.3500		0.3500
Fluoride (Federal)	mg/L	AP-8	11/05/2020		0.7600	*	0.3500
Fluoride (Federal)	mg/L	AP-8	05/07/2021		1.6000	*	0.3500

* - Significantly increased over background.
** - Detect at limit for 100% NDs in background (NPPL only).
*** - Manual exclusion.
ND = Not Detected, Result = detection limit.

Table C-7

Historical Downgradient Data for Constituent-Well Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

Constituent	Units	Well	Date		Result		Pred. Limit
Fluoride (Federal)	mg/L	AP-8	12/09/2021		0.4100	*	0.3500
Fluoride (Federal)	mg/L	AP-8	05/12/2022		1.0000	*	0.3500
Fluoride (Federal)	mg/L	AP-8	11/03/2022		1.8000	*	0.3500
Fluoride (Federal)	mg/L	AP-8	05/04/2023		0.8000	*	0.3500
Fluoride (Federal)	mg/L	AP-8	11/12/2023		0.7300	*	0.3500
Fluoride (Federal)	mg/L	AP-8	05/09/2024		0.8100	*	0.3500
Molybdenum, Total (Federal)	ug/L	AP-2A	09/28/2016		2600.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	10/19/2016		2700.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	11/09/2016		2700.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	12/12/2016		2100.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	02/05/2017		3000.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	03/24/2017		2700.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	05/24/2017		2900.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	06/21/2017		2800.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	08/10/2017		2800.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	05/09/2018		2100.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	09/30/2018		2300.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	05/15/2019		2200.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	11/05/2019		2600.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	05/11/2020		2650.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	11/09/2020		2430.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	05/08/2021		1920.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	11/04/2021		1790.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	05/12/2022		1570.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	11/02/2022		1320.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	05/04/2023		1120.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	11/07/2023		779.0000	*	660.0000
Molybdenum, Total (Federal)	ug/L	AP-2A	05/07/2024		1120.0000	*	660.0000
Selenium, Total (Federal)	ug/L	AP-4B	09/29/2016		10.0000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	10/18/2016		11.0000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	11/08/2016		6.8000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	12/13/2016		6.4000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	02/04/2017	ND	30.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-4B	03/23/2017		7.4000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	05/24/2017		8.2000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	06/21/2017		7.1000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	08/09/2017		6.3000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	05/08/2018		9.1000	*	5.9000

* - Significantly increased over background.
** - Detect at limit for 100% NDs in background (NPPL only).
*** - Manual exclusion.
ND = Not Detected, Result = detection limit.

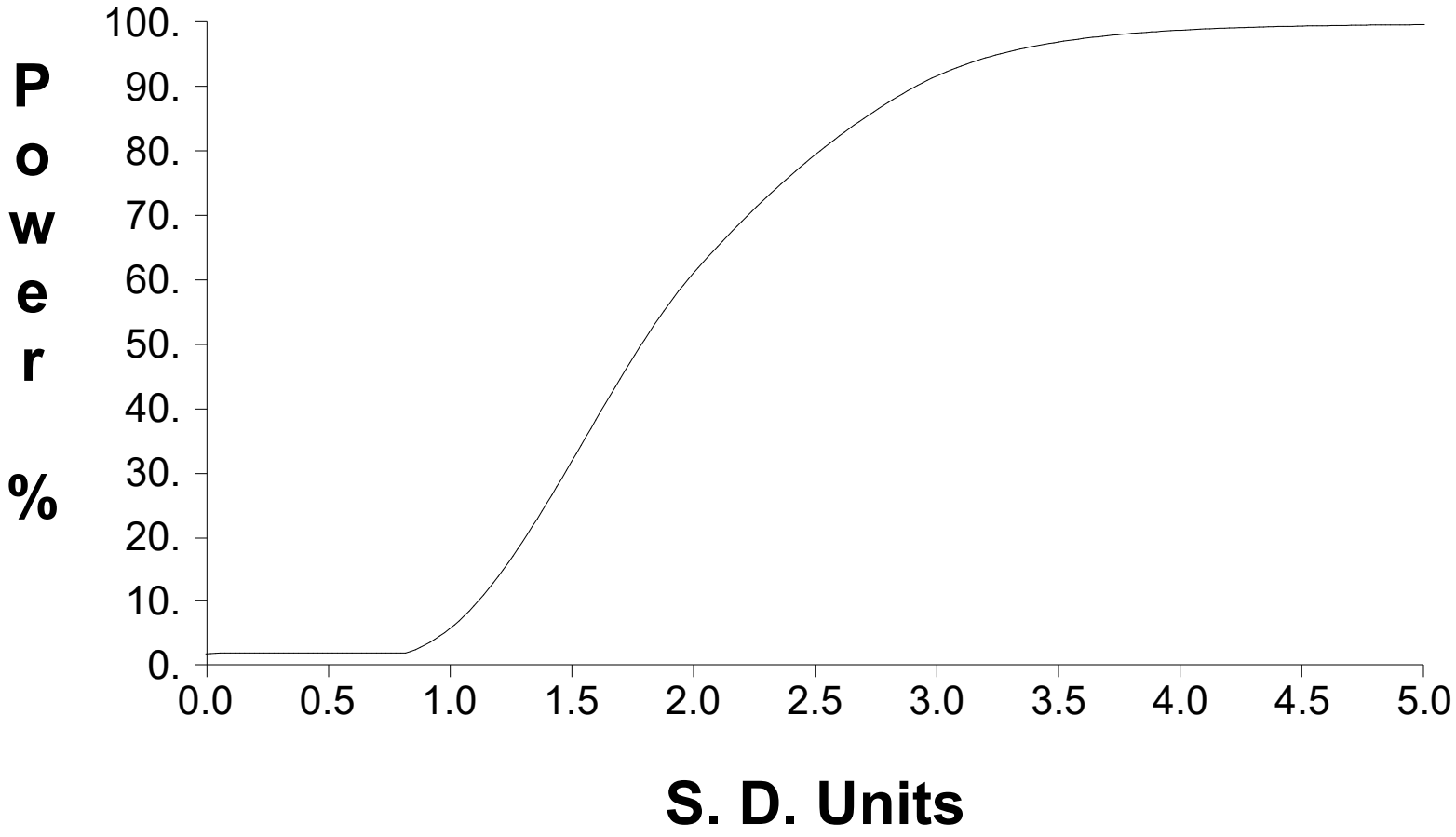
Table C-7

Historical Downgradient Data for Constituent-Well Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

Constituent	Units	Well	Date		Result		Pred. Limit
Selenium, Total (Federal)	ug/L	AP-4B	09/30/2018		6.2000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	05/14/2019		9.7000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	11/04/2019		9.2000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	05/07/2020		7.2000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	11/07/2020		6.6000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	05/10/2021		16.7000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	11/07/2021		9.2000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	05/15/2022		14.4000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	11/03/2022		14.0000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	05/03/2023		13.5000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	11/15/2023		14.0000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-4B	05/08/2024		17.2000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-6B	09/29/2016		1.8000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	10/18/2016	ND	10.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	11/08/2016	ND	20.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	12/13/2016	ND	5.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	02/04/2017	ND	30.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	03/23/2017	ND	20.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	05/23/2017	ND	5.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	06/21/2017	ND	5.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	08/09/2017	ND	5.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	05/08/2018	ND	5.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	10/01/2018	ND	0.9000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	05/14/2019	ND	1.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	11/04/2019		1.2000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	05/07/2020		1.2000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	11/07/2020	ND	1.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	05/10/2021	ND	1.0000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	11/07/2021		1.3000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	05/15/2022		3.1000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	11/30/2022		4.3000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	05/04/2023		3.1000		5.9000
Selenium, Total (Federal)	ug/L	AP-6B	11/15/2023		6.0000	*	5.9000
Selenium, Total (Federal)	ug/L	AP-6B	05/12/2024		5.0000		5.9000

* - Significantly increased over background.
** - Detect at limit for 100% NDs in background (NPPL only).
*** - Manual exclusion.
ND = Not Detected, Result = detection limit.

False Positive and False Negative Rates for Current Upgradient vs. Downgradient Monitoring Program



Appendix C: Statistical Analyses – 95% Lower Confidence Limit Documentation

November 2023

Table 1

Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Antimony, Total (Federal)	ug/L	AP-1R	4	0.700	0.000	1.176	0.700	0.700	6.000		
Antimony, Total (Federal)	ug/L	AP-2A	4	2.650	0.300	1.176	2.297	3.003	6.000		
Antimony, Total (Federal)	ug/L	AP-2BO	4	2.500	0.000	1.176	2.500	2.500	6.000		
Antimony, Total (Federal)	ug/L	AP-3	4	0.500	0.000	1.176	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-3A	4	0.500	0.000	1.176	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-4A	4	0.500	0.000	1.176	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-4B	4	0.500	0.000	1.176	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-4I	4	0.700	0.000	1.176	0.700	0.700	6.000		
Antimony, Total (Federal)	ug/L	AP-5	4	0.500	0.000	1.176	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-5A	4	0.500	0.000	1.176	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-6A	4	0.500	0.000	1.176	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-6B	4	0.500	0.000	1.176	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-7	4	0.500	0.000	1.176	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-8	4	0.500	0.000	1.176	0.500	0.500	6.000		
Arsenic, Total (Federal)	ug/L	AP-1R	4	1.800	0.294	1.176	1.454	2.146	78.000		
Arsenic, Total (Federal)	ug/L	AP-2A	4	440.250	762.030	1.176	0.000	1336.617	78.000		
Arsenic, Total (Federal)	ug/L	AP-2BO	4	2.725	0.838	1.176	1.739	3.711	78.000		
Arsenic, Total (Federal)	ug/L	AP-3	4	0.500	0.000	1.176	0.500	0.500	78.000		
Arsenic, Total (Federal)	ug/L	AP-3A	4	1.550	0.265	1.176	1.239	1.861	78.000		
Arsenic, Total (Federal)	ug/L	AP-4A	4	0.500	0.000	1.176	0.500	0.500	78.000		
Arsenic, Total (Federal)	ug/L	AP-4B	4	0.500	0.000	1.176	0.500	0.500	78.000		
Arsenic, Total (Federal)	ug/L	AP-4I	4	0.500	0.000	1.176	0.500	0.500	78.000		
Arsenic, Total (Federal)	ug/L	AP-5	4	0.500	0.000	1.176	0.500	0.500	78.000		
Arsenic, Total (Federal)	ug/L	AP-5A	4	2.150	0.700	1.176	1.327	2.973	78.000		
Arsenic, Total (Federal)	ug/L	AP-6A	4	2.450	0.100	1.176	2.332	2.568	78.000		
Arsenic, Total (Federal)	ug/L	AP-6B	4	0.500	0.000	1.176	0.500	0.500	78.000		
Arsenic, Total (Federal)	ug/L	AP-7	4	2.150	0.473	1.176	1.594	2.706	78.000		
Arsenic, Total (Federal)	ug/L	AP-8	4	6.975	3.628	1.176	2.707	11.243	78.000		
Barium, Total (Federal)	ug/L	AP-1R	4	64.425	9.516	1.176	53.231	75.619	2000.000		
Barium, Total (Federal)	ug/L	AP-2A	4	51.425	2.613	1.176	48.351	54.499	2000.000		
Barium, Total (Federal)	ug/L	AP-2BO	4	24.675	1.473	1.176	22.943	26.407	2000.000		
Barium, Total (Federal)	ug/L	AP-3	4	29.275	8.298	1.176	19.515	39.035	2000.000		
Barium, Total (Federal)	ug/L	AP-3A	4	34.950	1.737	1.176	32.907	36.993	2000.000		
Barium, Total (Federal)	ug/L	AP-4A	4	29.150	2.675	1.176	26.003	32.297	2000.000		
Barium, Total (Federal)	ug/L	AP-4B	4	105.600	10.097	1.176	93.724	117.476	2000.000	inc	
Barium, Total (Federal)	ug/L	AP-4I	4	20.875	3.235	1.176	17.070	24.680	2000.000		
Barium, Total (Federal)	ug/L	AP-5	4	41.950	9.199	1.176	31.129	52.771	2000.000	inc	
Barium, Total (Federal)	ug/L	AP-5A	4	25.500	2.962	1.176	22.016	28.984	2000.000		
Barium, Total (Federal)	ug/L	AP-6A	4	24.350	3.667	1.176	20.037	28.663	2000.000	dec	
Barium, Total (Federal)	ug/L	AP-6B	4	29.400	2.325	1.176	26.665	32.135	2000.000		

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

Table 1

Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Barium, Total (Federal)	ug/L	AP-7	4	86.200	10.414	1.176	73.950	98.450	2000.000	inc	
Barium, Total (Federal)	ug/L	AP-8	4	18.625	2.880	1.176	15.237	22.013	2000.000		
Beryllium, Total (Federal)	ug/L	AP-1R	4	0.325	0.000	1.176	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-2A	4	0.325	0.000	1.176	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-2BO	4	0.325	0.000	1.176	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-3	4	0.325	0.000	1.176	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-3A	4	0.100	0.000	1.176	0.100	0.100	4.000		
Beryllium, Total (Federal)	ug/L	AP-4A	4	0.325	0.000	1.176	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-4B	4	0.325	0.000	1.176	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-4I	4	0.325	0.000	1.176	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-5	4	0.325	0.000	1.176	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-5A	4	0.325	0.000	1.176	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-6A	4	0.325	0.000	1.176	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-6B	4	0.325	0.000	1.176	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-7	4	0.325	0.000	1.176	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-8	4	4.375	2.053	1.176	1.960	6.790	4.000		
Cadmium, Total (Federal)	ug/L	AP-1R	4	1.000	0.000	1.176	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-2A	4	1.000	0.000	1.176	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-2BO	4	0.803	0.395	1.176	0.338	1.267	5.000		
Cadmium, Total (Federal)	ug/L	AP-3	4	1.000	0.000	1.176	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-3A	4	1.000	0.000	1.176	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-4A	4	1.000	0.000	1.176	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-4B	4	1.000	0.000	1.176	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-4I	4	1.000	0.000	1.176	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-5	4	1.000	0.000	1.176	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-5A	4	1.000	0.000	1.176	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-6A	4	1.000	0.000	1.176	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-6B	4	1.000	0.000	1.176	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-7	4	1.000	0.000	1.176	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-8	4	15.150	8.305	1.176	5.381	24.919	5.000		**
Chromium, Total (Federal)	ug/L	AP-1R	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-2A	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-2BO	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-3	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-3A	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-4A	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-4B	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-4I	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-5	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-5A	4	5.000	0.000	1.176	5.000	5.000	100.000		

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

Table 1

Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Chromium, Total (Federal)	ug/L	AP-6A	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-6B	4	4.250	1.500	1.176	2.486	6.014	100.000		
Chromium, Total (Federal)	ug/L	AP-7	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-8	4	5.000	0.000	1.176	5.000	5.000	100.000		
Cobalt, Total (Federal)	ug/L	AP-1R	4	6.000	4.637	1.176	0.546	11.454	6.000		
Cobalt, Total (Federal)	ug/L	AP-2A	4	10.000	0.000	1.176	10.000	10.000	6.000		**
Cobalt, Total (Federal)	ug/L	AP-2BO	4	3.700	0.837	1.176	2.716	4.684	6.000		
Cobalt, Total (Federal)	ug/L	AP-3	4	10.000	0.000	1.176	10.000	10.000	6.000		**
Cobalt, Total (Federal)	ug/L	AP-3A	4	0.500	0.000	1.176	0.500	0.500	6.000		
Cobalt, Total (Federal)	ug/L	AP-4A	4	1.800	0.000	1.176	1.800	1.800	6.000		
Cobalt, Total (Federal)	ug/L	AP-4B	4	1.800	0.000	1.176	1.800	1.800	6.000		
Cobalt, Total (Federal)	ug/L	AP-4I	4	2.600	0.483	1.176	2.032	3.168	6.000		
Cobalt, Total (Federal)	ug/L	AP-5	4	3.675	4.218	1.176	0.000	8.636	6.000		
Cobalt, Total (Federal)	ug/L	AP-5A	4	10.000	0.000	1.176	10.000	10.000	6.000		**
Cobalt, Total (Federal)	ug/L	AP-6A	4	1.800	0.000	1.176	1.800	1.800	6.000		
Cobalt, Total (Federal)	ug/L	AP-6B	4	1.800	0.000	1.176	1.800	1.800	6.000		
Cobalt, Total (Federal)	ug/L	AP-7	4	1.800	0.000	1.176	1.800	1.800	6.000		
Cobalt, Total (Federal)	ug/L	AP-8	4	686.250	208.290	1.176	441.240	931.260	6.000		**
Fluoride (Federal)	mg/L	AP-1R	4	0.215	0.070	1.176	0.133	0.297	4.000		
Fluoride (Federal)	mg/L	AP-2A	4	0.731	1.179	1.176	0.000	2.118	4.000		
Fluoride (Federal)	mg/L	AP-2BO	4	0.250	0.000	1.176	0.250	0.250	4.000		
Fluoride (Federal)	mg/L	AP-3	4	0.159	0.095	1.176	0.047	0.271	4.000		
Fluoride (Federal)	mg/L	AP-3A	4	0.105	0.041	1.176	0.057	0.153	4.000		
Fluoride (Federal)	mg/L	AP-4A	4	0.215	0.099	1.176	0.098	0.332	4.000		
Fluoride (Federal)	mg/L	AP-4B	4	0.215	0.070	1.176	0.133	0.297	4.000		
Fluoride (Federal)	mg/L	AP-4I	4	0.199	0.037	1.176	0.155	0.243	4.000		
Fluoride (Federal)	mg/L	AP-5	4	0.735	1.177	1.176	0.000	2.119	4.000		
Fluoride (Federal)	mg/L	AP-5A	4	0.250	0.000	1.176	0.250	0.250	4.000		
Fluoride (Federal)	mg/L	AP-6A	4	0.250	0.000	1.176	0.250	0.250	4.000		
Fluoride (Federal)	mg/L	AP-6B	4	0.178	0.084	1.176	0.079	0.276	4.000		
Fluoride (Federal)	mg/L	AP-7	4	0.730	1.180	1.176	0.000	2.118	4.000		
Fluoride (Federal)	mg/L	AP-8	4	1.083	0.492	1.176	0.504	1.661	4.000		
Lead, Total (Federal)	ug/L	AP-1R	4	4.025	1.950	1.176	1.731	6.319	47.800		
Lead, Total (Federal)	ug/L	AP-2A	4	4.125	1.750	1.176	2.066	6.184	47.800		
Lead, Total (Federal)	ug/L	AP-2BO	4	5.000	0.000	1.176	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-3	4	5.000	0.000	1.176	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-3A	4	5.000	0.000	1.176	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-4A	4	5.000	0.000	1.176	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-4B	4	5.000	0.000	1.176	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-4I	4	5.000	0.000	1.176	5.000	5.000	47.800		

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

Table 1

Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Lead, Total (Federal)	ug/L	AP-5	4	5.000	0.000	1.176	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-5A	4	5.000	0.000	1.176	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-6A	4	5.000	0.000	1.176	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-6B	4	5.000	0.000	1.176	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-7	4	5.000	0.000	1.176	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-8	4	4.850	0.300	1.176	4.497	5.203	47.800		
Lithium, Total (Federal)	ug/L	AP-1R	4	10.000	0.000	1.176	10.000	10.000	2734.136		
Lithium, Total (Federal)	ug/L	AP-2A	4	66.575	6.238	1.176	59.238	73.912	2734.136		
Lithium, Total (Federal)	ug/L	AP-2BO	4	10.000	0.000	1.176	10.000	10.000	2734.136		
Lithium, Total (Federal)	ug/L	AP-3	4	10.000	0.000	1.176	10.000	10.000	2734.136		
Lithium, Total (Federal)	ug/L	AP-3A	4	10.000	0.000	1.176	10.000	10.000	2734.136		
Lithium, Total (Federal)	ug/L	AP-4A	4	37.525	8.494	1.176	27.534	47.516	2734.136		
Lithium, Total (Federal)	ug/L	AP-4B	4	10.000	0.000	1.176	10.000	10.000	2734.136		
Lithium, Total (Federal)	ug/L	AP-4I	4	10.000	0.000	1.176	10.000	10.000	2734.136		
Lithium, Total (Federal)	ug/L	AP-5	4	50.000	0.000	1.176	50.000	50.000	2734.136		
Lithium, Total (Federal)	ug/L	AP-5A	4	10.000	0.000	1.176	10.000	10.000	2734.136		
Lithium, Total (Federal)	ug/L	AP-6A	4	10.000	0.000	1.176	10.000	10.000	2734.136		
Lithium, Total (Federal)	ug/L	AP-6B	4	10.000	0.000	1.176	10.000	10.000	2734.136		
Lithium, Total (Federal)	ug/L	AP-7	4	10.000	0.000	1.176	10.000	10.000	2734.136		
Lithium, Total (Federal)	ug/L	AP-8	4	83.500	31.795	1.176	46.100	120.900	2734.136		
Mercury, total (Federal)	ug/L	AP-1R	4	0.100	0.000	1.176	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-2A	4	0.100	0.000	1.176	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-2BO	4	0.100	0.000	1.176	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-3	4	0.100	0.000	1.176	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-3A	4	1.000	0.000	1.176	1.000	1.000	2.000		
Mercury, total (Federal)	ug/L	AP-4A	4	0.100	0.000	1.176	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-4B	4	0.100	0.000	1.176	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-4I	4	0.100	0.000	1.176	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-5	4	0.100	0.000	1.176	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-5A	4	0.100	0.000	1.176	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-6A	4	0.100	0.000	1.176	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-6B	4	0.100	0.000	1.176	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-7	4	0.100	0.000	1.176	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-8	4	0.100	0.000	1.176	0.100	0.100	2.000		
Molybdenum, Total (Federal)	ug/L	AP-1R	4	31.425	21.453	1.176	6.190	56.660	660.000		
Molybdenum, Total (Federal)	ug/L	AP-2A	4	1197.250	334.121	1.176	804.227	1590.273	660.000	dec	**
Molybdenum, Total (Federal)	ug/L	AP-2BO	4	389.250	156.623	1.176	205.016	573.484	660.000	dec	
Molybdenum, Total (Federal)	ug/L	AP-3	4	25.550	28.232	1.176	0.000	58.759	660.000		
Molybdenum, Total (Federal)	ug/L	AP-3A	4	584.500	40.902	1.176	536.387	632.613	660.000		
Molybdenum, Total (Federal)	ug/L	AP-4A	4	225.000	31.188	1.176	188.314	261.686	660.000		

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

Table 1

Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Molybdenum, Total (Federal)	ug/L	AP-4B	4	50.000	0.000	1.176	50.000	50.000	660.000		
Molybdenum, Total (Federal)	ug/L	AP-4I	4	58.975	13.760	1.176	42.789	75.161	660.000		
Molybdenum, Total (Federal)	ug/L	AP-5	4	56.075	24.234	1.176	27.568	84.582	660.000	dec	
Molybdenum, Total (Federal)	ug/L	AP-5A	4	253.000	46.354	1.176	198.475	307.525	660.000		
Molybdenum, Total (Federal)	ug/L	AP-6A	4	50.000	0.000	1.176	50.000	50.000	660.000		
Molybdenum, Total (Federal)	ug/L	AP-6B	4	50.000	0.000	1.176	50.000	50.000	660.000		
Molybdenum, Total (Federal)	ug/L	AP-7	4	37.850	24.300	1.176	9.266	66.434	660.000		
Molybdenum, Total (Federal)	ug/L	AP-8	4	38.025	23.950	1.176	9.853	66.197	660.000		
Selenium, Total (Federal)	ug/L	AP-1R	4	0.500	0.000	1.176	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-2A	4	0.875	0.750	1.176	0.000	1.757	50.000		
Selenium, Total (Federal)	ug/L	AP-2BO	4	0.500	0.000	1.176	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-3	4	2.725	0.330	1.176	2.336	3.114	50.000		
Selenium, Total (Federal)	ug/L	AP-3A	4	0.500	0.000	1.176	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-4A	4	0.500	0.000	1.176	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-4B	4	13.975	0.369	1.176	13.541	14.409	50.000		
Selenium, Total (Federal)	ug/L	AP-4I	4	0.500	0.000	1.176	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-5	4	3.025	0.946	1.176	1.912	4.138	50.000		
Selenium, Total (Federal)	ug/L	AP-5A	4	0.500	0.000	1.176	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-6A	4	0.500	0.000	1.176	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-6B	4	4.125	1.372	1.176	2.511	5.739	50.000		
Selenium, Total (Federal)	ug/L	AP-7	4	0.500	0.000	1.176	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-8	4	1.925	0.723	1.176	1.075	2.775	50.000		
Thallium, Total (Federal)	ug/L	AP-1R	4	0.500	0.000	1.176	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-2A	4	0.500	0.000	1.176	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-2BO	4	0.500	0.000	1.176	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-3	4	0.500	0.000	1.176	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-3A	4	0.500	0.000	1.176	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-4A	4	0.500	0.000	1.176	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-4B	4	0.500	0.000	1.176	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-4I	4	0.500	0.000	1.176	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-5	4	0.500	0.000	1.176	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-5A	4	0.500	0.000	1.176	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-6A	4	0.500	0.000	1.176	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-6B	4	0.500	0.000	1.176	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-7	4	0.500	0.000	1.176	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-8	4	0.500	0.000	1.176	0.500	0.500	2.300		
Total Radium (Federal)	pCi/L	AP-1R	4	1.065	0.103	1.176	0.944	1.186	5.000		
Total Radium (Federal)	pCi/L	AP-2A	4	2.073	0.526	1.176	1.454	2.691	5.000		
Total Radium (Federal)	pCi/L	AP-2BO	4	1.320	0.207	1.176	1.076	1.564	5.000		
Total Radium (Federal)	pCi/L	AP-3	4	0.791	0.216	1.176	0.536	1.045	5.000		

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

Table 1

Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Total Radium (Federal)	pCi/L	AP-3A	4	1.102	0.219	1.176	0.844	1.359	5.000		
Total Radium (Federal)	pCi/L	AP-4A	4	1.108	0.530	1.176	0.485	1.730	5.000		
Total Radium (Federal)	pCi/L	AP-4B	4	0.690	0.380	1.176	0.243	1.137	5.000		
Total Radium (Federal)	pCi/L	AP-4I	4	0.887	0.228	1.176	0.619	1.154	5.000		
Total Radium (Federal)	pCi/L	AP-5	4	1.037	0.343	1.176	0.634	1.440	5.000		
Total Radium (Federal)	pCi/L	AP-5A	4	0.808	0.315	1.176	0.437	1.178	5.000		
Total Radium (Federal)	pCi/L	AP-6A	4	0.713	0.252	1.176	0.416	1.009	5.000		
Total Radium (Federal)	pCi/L	AP-6B	4	0.887	0.284	1.176	0.552	1.221	5.000		
Total Radium (Federal)	pCi/L	AP-7	4	1.473	0.243	1.176	1.186	1.759	5.000		
Total Radium (Federal)	pCi/L	AP-8	4	1.214	0.492	1.176	0.635	1.793	5.000		

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

Table 1

Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Antimony, Total (Federal)	ug/L	AP-1R	5	0.700	0.000	0.953	0.700	0.700	6.000		
Antimony, Total (Federal)	ug/L	AP-2A	5	2.620	0.268	0.953	2.364	2.876	6.000		
Antimony, Total (Federal)	ug/L	AP-2BO	5	2.500	0.000	0.953	2.500	2.500	6.000		
Antimony, Total (Federal)	ug/L	AP-3	5	0.500	0.000	0.953	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-3A	5	0.500	0.000	0.953	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-4A	5	0.500	0.000	0.953	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-4B	5	0.500	0.000	0.953	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-4I	5	0.700	0.000	0.953	0.700	0.700	6.000		
Antimony, Total (Federal)	ug/L	AP-5	5	0.500	0.000	0.953	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-5A	5	0.500	0.000	0.953	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-6A	5	0.500	0.000	0.953	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-6B	5	0.500	0.000	0.953	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-7	5	0.500	0.000	0.953	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-8	5	0.500	0.000	0.953	0.500	0.500	6.000		
Arsenic, Total (Federal)	ug/L	AP-1R	5	1.800	0.255	0.953	1.557	2.043	78.000		
Arsenic, Total (Federal)	ug/L	AP-2A	5	352.920	688.222	0.953	0.000	1008.976	78.000		
Arsenic, Total (Federal)	ug/L	AP-2BO	5	2.680	0.733	0.953	1.981	3.379	78.000		
Arsenic, Total (Federal)	ug/L	AP-3	5	0.500	0.000	0.953	0.500	0.500	78.000		
Arsenic, Total (Federal)	ug/L	AP-3A	5	1.600	0.255	0.953	1.357	1.843	78.000		
Arsenic, Total (Federal)	ug/L	AP-4A	5	0.500	0.000	0.953	0.500	0.500	78.000		
Arsenic, Total (Federal)	ug/L	AP-4B	5	0.500	0.000	0.953	0.500	0.500	78.000		
Arsenic, Total (Federal)	ug/L	AP-4I	5	0.500	0.000	0.953	0.500	0.500	78.000		
Arsenic, Total (Federal)	ug/L	AP-5	5	0.500	0.000	0.953	0.500	0.500	78.000		
Arsenic, Total (Federal)	ug/L	AP-5A	5	2.220	0.626	0.953	1.623	2.817	78.000		
Arsenic, Total (Federal)	ug/L	AP-6A	5	2.460	0.089	0.953	2.375	2.545	78.000		
Arsenic, Total (Federal)	ug/L	AP-6B	5	0.500	0.000	0.953	0.500	0.500	78.000		
Arsenic, Total (Federal)	ug/L	AP-7	5	2.580	1.045	0.953	1.584	3.576	78.000		
Arsenic, Total (Federal)	ug/L	AP-8	5	7.020	3.144	0.953	4.023	10.017	78.000		
Barium, Total (Federal)	ug/L	AP-1R	5	65.320	8.481	0.953	57.235	73.405	2000.000		
Barium, Total (Federal)	ug/L	AP-2A	5	50.440	3.158	0.953	47.430	53.450	2000.000		
Barium, Total (Federal)	ug/L	AP-2BO	5	24.940	1.406	0.953	23.599	26.281	2000.000		
Barium, Total (Federal)	ug/L	AP-3	5	31.060	8.220	0.953	23.224	38.896	2000.000		
Barium, Total (Federal)	ug/L	AP-3A	5	34.860	1.518	0.953	33.413	36.307	2000.000		
Barium, Total (Federal)	ug/L	AP-4A	5	29.500	2.445	0.953	27.169	31.831	2000.000		
Barium, Total (Federal)	ug/L	AP-4B	5	106.080	8.809	0.953	97.682	114.478	2000.000	inc	
Barium, Total (Federal)	ug/L	AP-4I	5	22.520	4.624	0.953	18.113	26.927	2000.000		
Barium, Total (Federal)	ug/L	AP-5	5	40.560	8.551	0.953	32.408	48.712	2000.000	inc	
Barium, Total (Federal)	ug/L	AP-5A	5	26.620	3.585	0.953	23.203	30.037	2000.000		
Barium, Total (Federal)	ug/L	AP-6A	5	24.640	3.241	0.953	21.551	27.729	2000.000	dec	
Barium, Total (Federal)	ug/L	AP-6B	5	29.480	2.022	0.953	27.553	31.407	2000.000		

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

Table 1

Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Barium, Total (Federal)	ug/L	AP-7	5	85.200	9.292	0.953	76.342	94.058	2000.000	inc	
Barium, Total (Federal)	ug/L	AP-8	5	18.740	2.508	0.953	16.350	21.130	2000.000		
Beryllium, Total (Federal)	ug/L	AP-1R	5	0.325	0.000	0.953	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-2A	5	0.325	0.000	0.953	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-2BO	5	0.325	0.000	0.953	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-3	5	0.325	0.000	0.953	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-3A	5	0.100	0.000	0.953	0.100	0.100	4.000		
Beryllium, Total (Federal)	ug/L	AP-4A	5	0.325	0.000	0.953	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-4B	5	0.325	0.000	0.953	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-4I	5	0.325	0.000	0.953	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-5	5	0.325	0.000	0.953	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-5A	5	0.325	0.000	0.953	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-6A	5	0.325	0.000	0.953	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-6B	5	0.325	0.000	0.953	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-7	5	0.325	0.000	0.953	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-8	5	4.800	2.016	0.953	2.878	6.722	4.000		
Cadmium, Total (Federal)	ug/L	AP-1R	5	1.000	0.000	0.953	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-2A	5	1.000	0.000	0.953	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-2BO	5	0.842	0.353	0.953	0.505	1.179	5.000		
Cadmium, Total (Federal)	ug/L	AP-3	5	1.000	0.000	0.953	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-3A	5	1.000	0.000	0.953	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-4A	5	1.000	0.000	0.953	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-4B	5	1.000	0.000	0.953	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-4I	5	1.000	0.000	0.953	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-5	5	1.000	0.000	0.953	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-5A	5	1.000	0.000	0.953	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-6A	5	1.000	0.000	0.953	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-6B	5	1.000	0.000	0.953	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-7	5	1.000	0.000	0.953	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-8	5	12.960	8.701	0.953	4.666	21.254	5.000		
Chromium, Total (Federal)	ug/L	AP-1R	5	5.000	0.000	0.953	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-2A	5	5.000	0.000	0.953	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-2BO	5	5.000	0.000	0.953	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-3	5	5.000	0.000	0.953	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-3A	5	5.000	0.000	0.953	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-4A	5	5.000	0.000	0.953	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-4B	5	5.000	0.000	0.953	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-4I	5	5.000	0.000	0.953	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-5	5	5.000	0.000	0.953	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-5A	5	5.000	0.000	0.953	5.000	5.000	100.000		

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

Table 1

Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Chromium, Total (Federal)	ug/L	AP-6A	5	5.000	0.000	0.953	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-6B	5	4.400	1.342	0.953	3.121	5.679	100.000		
Chromium, Total (Federal)	ug/L	AP-7	5	5.000	0.000	0.953	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-8	4	5.000	0.000	1.176	5.000	5.000	100.000		
Cobalt, Total (Federal)	ug/L	AP-1R	5	6.800	4.396	0.953	2.609	10.991	6.000		
Cobalt, Total (Federal)	ug/L	AP-2A	5	10.000	0.000	0.953	10.000	10.000	6.000		**
Cobalt, Total (Federal)	ug/L	AP-2BO	5	3.640	0.737	0.953	2.938	4.342	6.000		
Cobalt, Total (Federal)	ug/L	AP-3	5	10.000	0.000	0.953	10.000	10.000	6.000		**
Cobalt, Total (Federal)	ug/L	AP-3A	5	0.500	0.000	0.953	0.500	0.500	6.000		
Cobalt, Total (Federal)	ug/L	AP-4A	5	1.800	0.000	0.953	1.800	1.800	6.000		
Cobalt, Total (Federal)	ug/L	AP-4B	5	1.800	0.000	0.953	1.800	1.800	6.000		
Cobalt, Total (Federal)	ug/L	AP-4I	5	2.560	0.428	0.953	2.152	2.968	6.000		
Cobalt, Total (Federal)	ug/L	AP-5	5	3.260	3.769	0.953	0.000	6.853	6.000		
Cobalt, Total (Federal)	ug/L	AP-5A	5	8.220	3.980	0.953	4.426	12.014	6.000		
Cobalt, Total (Federal)	ug/L	AP-6A	5	1.800	0.000	0.953	1.800	1.800	6.000		
Cobalt, Total (Federal)	ug/L	AP-6B	5	1.800	0.000	0.953	1.800	1.800	6.000		
Cobalt, Total (Federal)	ug/L	AP-7	5	1.800	0.000	0.953	1.800	1.800	6.000		
Cobalt, Total (Federal)	ug/L	AP-8	5	612.800	243.953	0.953	380.249	845.351	6.000		**
Fluoride (Federal)	mg/L	AP-1R	5	0.222	0.063	0.953	0.162	0.282	4.000		
Fluoride (Federal)	mg/L	AP-2A	5	0.617	1.053	0.953	0.000	1.621	4.000		
Fluoride (Federal)	mg/L	AP-2BO	5	0.250	0.000	0.953	0.250	0.250	4.000		
Fluoride (Federal)	mg/L	AP-3	5	0.187	0.104	0.953	0.088	0.286	4.000		
Fluoride (Federal)	mg/L	AP-3A	5	0.094	0.043	0.953	0.053	0.135	4.000		
Fluoride (Federal)	mg/L	AP-4A	5	0.232	0.094	0.953	0.142	0.322	4.000		
Fluoride (Federal)	mg/L	AP-4B	5	0.222	0.063	0.953	0.162	0.282	4.000		
Fluoride (Federal)	mg/L	AP-4I	5	0.193	0.035	0.953	0.160	0.226	4.000		
Fluoride (Federal)	mg/L	AP-5	5	0.614	1.055	0.953	0.000	1.619	4.000		
Fluoride (Federal)	mg/L	AP-5A	5	0.250	0.000	0.953	0.250	0.250	4.000		
Fluoride (Federal)	mg/L	AP-6A	5	0.250	0.000	0.953	0.250	0.250	4.000		
Fluoride (Federal)	mg/L	AP-6B	5	0.192	0.079	0.953	0.116	0.268	4.000		
Fluoride (Federal)	mg/L	AP-7	5	0.614	1.054	0.953	0.000	1.619	4.000		
Fluoride (Federal)	mg/L	AP-8	5	0.948	0.521	0.953	0.451	1.445	4.000		
Lead, Total (Federal)	ug/L	AP-1R	5	4.220	1.744	0.953	2.557	5.883	47.800		
Lead, Total (Federal)	ug/L	AP-2A	5	4.300	1.565	0.953	2.808	5.792	47.800		
Lead, Total (Federal)	ug/L	AP-2BO	5	5.000	0.000	0.953	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-3	5	5.000	0.000	0.953	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-3A	5	5.000	0.000	0.953	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-4A	5	5.000	0.000	0.953	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-4B	5	5.000	0.000	0.953	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-4I	5	5.000	0.000	0.953	5.000	5.000	47.800		

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

Table 1

Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Lead, Total (Federal)	ug/L	AP-5	5	5.000	0.000	0.953	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-5A	5	5.000	0.000	0.953	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-6A	5	5.000	0.000	0.953	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-6B	5	5.000	0.000	0.953	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-7	5	5.000	0.000	0.953	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-8	5	4.880	0.268	0.953	4.624	5.136	47.800		
Lithium, Total (Federal)	ug/L	AP-1R	5	10.000	0.000	0.953	10.000	10.000	2734.136		
Lithium, Total (Federal)	ug/L	AP-2A	5	73.100	15.558	0.953	58.269	87.931	2734.136		
Lithium, Total (Federal)	ug/L	AP-2BO	5	13.160	7.066	0.953	6.424	19.896	2734.136		
Lithium, Total (Federal)	ug/L	AP-3	5	10.000	0.000	0.953	10.000	10.000	2734.136		
Lithium, Total (Federal)	ug/L	AP-3A	5	10.000	0.000	0.953	10.000	10.000	2734.136		
Lithium, Total (Federal)	ug/L	AP-4A	5	40.280	9.595	0.953	31.134	49.426	2734.136		
Lithium, Total (Federal)	ug/L	AP-4B	5	10.000	0.000	0.953	10.000	10.000	2734.136		
Lithium, Total (Federal)	ug/L	AP-4I	5	10.000	0.000	0.953	10.000	10.000	2734.136		
Lithium, Total (Federal)	ug/L	AP-5	5	50.000	0.000	0.953	50.000	50.000	2734.136		
Lithium, Total (Federal)	ug/L	AP-5A	5	10.000	0.000	0.953	10.000	10.000	2734.136		
Lithium, Total (Federal)	ug/L	AP-6A	5	10.000	0.000	0.953	10.000	10.000	2734.136		
Lithium, Total (Federal)	ug/L	AP-6B	5	10.000	0.000	0.953	10.000	10.000	2734.136		
Lithium, Total (Federal)	ug/L	AP-7	5	10.000	0.000	0.953	10.000	10.000	2734.136		
Lithium, Total (Federal)	ug/L	AP-8	5	75.940	32.310	0.953	45.140	106.740	2734.136		
Mercury, total (Federal)	ug/L	AP-1R	5	0.100	0.000	0.953	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-2A	5	0.100	0.000	0.953	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-2BO	5	0.100	0.000	0.953	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-3	5	0.100	0.000	0.953	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-3A	5	1.000	0.000	0.953	1.000	1.000	2.000		
Mercury, total (Federal)	ug/L	AP-4A	5	0.100	0.000	0.953	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-4B	5	0.100	0.000	0.953	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-4I	5	0.100	0.000	0.953	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-5	5	0.100	0.000	0.953	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-5A	5	0.100	0.000	0.953	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-6A	5	0.100	0.000	0.953	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-6B	5	0.100	0.000	0.953	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-7	5	0.100	0.000	0.953	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-8	3								*
Molybdenum, Total (Federal)	ug/L	AP-1R	5	27.840	20.235	0.953	8.551	47.129	660.000		
Molybdenum, Total (Federal)	ug/L	AP-2A	5	1315.800	392.426	0.953	941.715	1689.885	660.000	dec	**
Molybdenum, Total (Federal)	ug/L	AP-2BO	5	343.000	170.568	0.953	180.404	505.596	660.000	dec	
Molybdenum, Total (Federal)	ug/L	AP-3	5	30.440	26.784	0.953	4.908	55.972	660.000		
Molybdenum, Total (Federal)	ug/L	AP-3A	5	574.800	41.536	0.953	535.206	614.394	660.000		
Molybdenum, Total (Federal)	ug/L	AP-4A	5	222.800	27.454	0.953	196.630	248.970	660.000		

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

Table 1

Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Molybdenum, Total (Federal)	ug/L	AP-4B	5	50.000	0.000	0.953	50.000	50.000	660.000		
Molybdenum, Total (Federal)	ug/L	AP-4I	5	71.380	30.190	0.953	42.601	100.159	660.000		
Molybdenum, Total (Federal)	ug/L	AP-5	5	65.660	29.997	0.953	37.065	94.255	660.000	dec	
Molybdenum, Total (Federal)	ug/L	AP-5A	5	251.200	40.345	0.953	212.741	289.659	660.000		
Molybdenum, Total (Federal)	ug/L	AP-6A	5	50.000	0.000	0.953	50.000	50.000	660.000		
Molybdenum, Total (Federal)	ug/L	AP-6B	5	50.000	0.000	0.953	50.000	50.000	660.000		
Molybdenum, Total (Federal)	ug/L	AP-7	5	40.280	21.735	0.953	19.561	60.999	660.000		
Molybdenum, Total (Federal)	ug/L	AP-8	5	4.420	1.297	0.953	3.184	5.656	660.000		
Selenium, Total (Federal)	ug/L	AP-1R	5	0.500	0.000	0.953	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-2A	5	0.800	0.671	0.953	0.161	1.439	50.000		
Selenium, Total (Federal)	ug/L	AP-2BO	5	0.500	0.000	0.953	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-3	5	2.620	0.370	0.953	2.267	2.973	50.000		
Selenium, Total (Federal)	ug/L	AP-3A	5	0.500	0.000	0.953	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-4A	5	0.500	0.000	0.953	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-4B	5	13.020	2.159	0.953	10.962	15.078	50.000		
Selenium, Total (Federal)	ug/L	AP-4I	5	0.500	0.000	0.953	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-5	5	2.660	1.157	0.953	1.557	3.763	50.000		
Selenium, Total (Federal)	ug/L	AP-5A	5	0.500	0.000	0.953	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-6A	5	0.500	0.000	0.953	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-6B	5	3.560	1.734	0.953	1.907	5.213	50.000		
Selenium, Total (Federal)	ug/L	AP-7	5	0.500	0.000	0.953	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-8	5	1.120	0.657	0.953	0.493	1.747	50.000		
Thallium, Total (Federal)	ug/L	AP-1R	5	0.500	0.000	0.953	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-2A	5	0.500	0.000	0.953	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-2BO	5	0.500	0.000	0.953	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-3	5	0.500	0.000	0.953	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-3A	5	0.500	0.000	0.953	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-4A	5	0.500	0.000	0.953	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-4B	5	0.500	0.000	0.953	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-4I	5	0.500	0.000	0.953	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-5	5	0.500	0.000	0.953	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-5A	5	0.500	0.000	0.953	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-6A	5	0.500	0.000	0.953	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-6B	5	0.500	0.000	0.953	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-7	5	0.500	0.000	0.953	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-8	5	0.500	0.000	0.953	0.500	0.500	2.300		
Total Radium (Federal)	pCi/L	AP-1R	5	1.021	0.133	0.953	0.895	1.147	5.000		
Total Radium (Federal)	pCi/L	AP-2A	5	1.944	0.538	0.953	1.431	2.457	5.000		
Total Radium (Federal)	pCi/L	AP-2BO	5	1.258	0.227	0.953	1.042	1.474	5.000		
Total Radium (Federal)	pCi/L	AP-3	5	0.807	0.191	0.953	0.625	0.989	5.000		

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

Table 1

Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Total Radium (Federal)	pCi/L	AP-3A	5	1.207	0.303	0.953	0.918	1.496	5.000		
Total Radium (Federal)	pCi/L	AP-4A	5	1.228	0.532	0.953	0.721	1.735	5.000		
Total Radium (Federal)	pCi/L	AP-4B	5	0.662	0.335	0.953	0.343	0.982	5.000		
Total Radium (Federal)	pCi/L	AP-4I	5	1.047	0.410	0.953	0.656	1.438	5.000		
Total Radium (Federal)	pCi/L	AP-5	5	1.265	0.591	0.953	0.702	1.829	5.000		
Total Radium (Federal)	pCi/L	AP-5A	5	0.846	0.286	0.953	0.573	1.119	5.000		
Total Radium (Federal)	pCi/L	AP-6A	5	0.748	0.232	0.953	0.527	0.970	5.000		
Total Radium (Federal)	pCi/L	AP-6B	5	0.863	0.252	0.953	0.624	1.103	5.000		
Total Radium (Federal)	pCi/L	AP-7	5	1.442	0.222	0.953	1.231	1.653	5.000		
Total Radium (Federal)	pCi/L	AP-8	5	1.186	0.422	0.953	0.783	1.588	5.000		

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

May-June 2024

Table 1

Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Antimony, Total (Federal)	ug/L	AP-1R	4	0.500	0.000	1.176	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-2A	4	3.100	0.849	1.176	2.102	4.098	6.000		
Antimony, Total (Federal)	ug/L	AP-2BO	4	0.500	0.000	1.176	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-3	4	0.500	0.000	1.176	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-3A	4	0.500	0.000	1.176	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-4A	4	0.500	0.000	1.176	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-4B	4	0.500	0.000	1.176	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-4I	4	0.500	0.000	1.176	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-5	4	0.500	0.000	1.176	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-5A	4	0.500	0.000	1.176	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-6A	4	0.500	0.000	1.176	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-6B	4	0.500	0.000	1.176	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-7	4	0.500	0.000	1.176	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-8	4	0.500	0.000	1.176	0.500	0.500	6.000		
Arsenic, Total (Federal)	ug/L	AP-1R	4	1.750	0.332	1.176	1.360	2.140	234.000		
Arsenic, Total (Federal)	ug/L	AP-2A	4	826.250	860.220	1.176	0.000	1838.117	234.000		
Arsenic, Total (Federal)	ug/L	AP-2BO	4	3.675	1.573	1.176	1.824	5.526	234.000		
Arsenic, Total (Federal)	ug/L	AP-3	4	0.500	0.000	1.176	0.500	0.500	234.000		
Arsenic, Total (Federal)	ug/L	AP-3A	4	1.600	0.245	1.176	1.312	1.888	234.000		
Arsenic, Total (Federal)	ug/L	AP-4A	4	0.500	0.000	1.176	0.500	0.500	234.000		
Arsenic, Total (Federal)	ug/L	AP-4B	4	0.500	0.000	1.176	0.500	0.500	234.000		
Arsenic, Total (Federal)	ug/L	AP-4I	4	0.500	0.000	1.176	0.500	0.500	234.000		
Arsenic, Total (Federal)	ug/L	AP-5	4	0.500	0.000	1.176	0.500	0.500	234.000		
Arsenic, Total (Federal)	ug/L	AP-5A	4	2.150	0.700	1.176	1.327	2.973	234.000		
Arsenic, Total (Federal)	ug/L	AP-6A	4	0.950	0.900	1.176	0.000	2.009	234.000		
Arsenic, Total (Federal)	ug/L	AP-6B	4	0.500	0.000	1.176	0.500	0.500	234.000		
Arsenic, Total (Federal)	ug/L	AP-7	4	2.200	0.383	1.176	1.750	2.650	234.000		
Arsenic, Total (Federal)	ug/L	AP-8	4	7.575	3.476	1.176	3.486	11.664	234.000		
Barium, Total (Federal)	ug/L	AP-1R	4	63.225	9.470	1.176	52.085	74.365	2000.000		
Barium, Total (Federal)	ug/L	AP-2A	4	50.400	2.796	1.176	47.111	53.689	2000.000		
Barium, Total (Federal)	ug/L	AP-2BO	4	24.175	1.292	1.176	22.655	25.695	2000.000		
Barium, Total (Federal)	ug/L	AP-3	4	31.775	4.474	1.176	26.512	37.038	2000.000		
Barium, Total (Federal)	ug/L	AP-3A	4	34.475	2.089	1.176	32.018	36.932	2000.000		
Barium, Total (Federal)	ug/L	AP-4A	4	29.525	2.317	1.176	26.799	32.251	2000.000		
Barium, Total (Federal)	ug/L	AP-4B	4	106.025	9.669	1.176	94.652	117.398	2000.000	inc	
Barium, Total (Federal)	ug/L	AP-4I	4	21.550	3.735	1.176	17.157	25.943	2000.000		
Barium, Total (Federal)	ug/L	AP-5	4	39.800	13.253	1.176	24.211	55.389	2000.000		
Barium, Total (Federal)	ug/L	AP-5A	4	25.575	2.898	1.176	22.167	28.983	2000.000		
Barium, Total (Federal)	ug/L	AP-6A	4	24.100	3.855	1.176	19.566	28.634	2000.000	dec	
Barium, Total (Federal)	ug/L	AP-6B	4	27.625	3.578	1.176	23.416	31.834	2000.000		

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

Table 1

Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Barium, Total (Federal)	ug/L	AP-7	4	85.375	10.953	1.176	72.491	98.259	2000.000	inc	
Barium, Total (Federal)	ug/L	AP-8	4	20.100	1.878	1.176	17.891	22.309	2000.000		
Beryllium, Total (Federal)	ug/L	AP-1R	4	0.325	0.000	1.176	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-2A	4	0.325	0.000	1.176	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-2BO	4	0.325	0.000	1.176	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-3	4	0.325	0.000	1.176	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-3A	4	0.325	0.000	1.176	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-4A	4	0.325	0.000	1.176	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-4B	4	0.325	0.000	1.176	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-4I	4	0.325	0.000	1.176	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-5	4	0.325	0.000	1.176	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-5A	4	0.325	0.000	1.176	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-6A	4	0.325	0.000	1.176	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-6B	4	0.325	0.000	1.176	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-7	4	0.325	0.000	1.176	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-8	4	4.450	1.930	1.176	2.180	6.720	4.000		
Cadmium, Total (Federal)	ug/L	AP-1R	4	1.000	0.000	1.176	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-2A	4	1.825	1.650	1.176	0.000	3.766	5.000		
Cadmium, Total (Federal)	ug/L	AP-2BO	4	0.803	0.395	1.176	0.338	1.267	5.000		
Cadmium, Total (Federal)	ug/L	AP-3	4	1.000	0.000	1.176	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-3A	4	1.000	0.000	1.176	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-4A	4	1.000	0.000	1.176	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-4B	4	1.000	0.000	1.176	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-4I	4	1.000	0.000	1.176	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-5	4	1.000	0.000	1.176	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-5A	4	1.000	0.000	1.176	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-6A	4	1.000	0.000	1.176	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-6B	4	1.000	0.000	1.176	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-7	4	1.000	0.000	1.176	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-8	4	12.850	9.413	1.176	1.778	23.922	5.000		
Chromium, Total (Federal)	ug/L	AP-1R	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-2A	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-2BO	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-3	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-3A	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-4A	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-4B	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-4I	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-5	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-5A	4	5.000	0.000	1.176	5.000	5.000	100.000		

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

Table 1

Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Chromium, Total (Federal)	ug/L	AP-6A	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-6B	4	4.250	1.500	1.176	2.486	6.014	100.000		
Chromium, Total (Federal)	ug/L	AP-7	4	5.000	0.000	1.176	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-8	4	5.000	0.000	1.176	5.000	5.000	100.000		
Cobalt, Total (Federal)	ug/L	AP-1R	4	1.900	0.424	1.176	1.401	2.399	6.000		
Cobalt, Total (Federal)	ug/L	AP-2A	4	1.800	0.000	1.176	1.800	1.800	6.000		
Cobalt, Total (Federal)	ug/L	AP-2BO	4	3.175	0.512	1.176	2.572	3.778	6.000		
Cobalt, Total (Federal)	ug/L	AP-3	4	1.800	0.000	1.176	1.800	1.800	6.000		
Cobalt, Total (Federal)	ug/L	AP-3A	4	1.800	0.000	1.176	1.800	1.800	6.000		
Cobalt, Total (Federal)	ug/L	AP-4A	4	0.500	0.000	1.176	0.500	0.500	6.000		
Cobalt, Total (Federal)	ug/L	AP-4B	4	0.500	0.000	1.176	0.500	0.500	6.000		
Cobalt, Total (Federal)	ug/L	AP-4I	4	2.450	0.532	1.176	1.824	3.076	6.000		
Cobalt, Total (Federal)	ug/L	AP-5	4	5.750	4.907	1.176	0.000	11.523	6.000		
Cobalt, Total (Federal)	ug/L	AP-5A	4	1.800	0.000	1.176	1.800	1.800	6.000		
Cobalt, Total (Federal)	ug/L	AP-6A	4	0.500	0.000	1.176	0.500	0.500	6.000		
Cobalt, Total (Federal)	ug/L	AP-6B	4	0.500	0.000	1.176	0.500	0.500	6.000		
Cobalt, Total (Federal)	ug/L	AP-7	4	0.500	0.000	1.176	0.500	0.500	6.000		
Cobalt, Total (Federal)	ug/L	AP-8	4	624.250	250.210	1.176	329.931	918.569	6.000		**
Fluoride (Federal)	mg/L	AP-1R	4	0.215	0.070	1.176	0.133	0.297	4.000		
Fluoride (Federal)	mg/L	AP-2A	4	0.156	0.032	1.176	0.119	0.194	4.000		
Fluoride (Federal)	mg/L	AP-2BO	4	0.050	0.000	1.176	0.050	0.050	4.000		
Fluoride (Federal)	mg/L	AP-3	4	0.201	0.114	1.176	0.067	0.335	4.000		
Fluoride (Federal)	mg/L	AP-3A	4	0.205	0.110	1.176	0.076	0.334	4.000		
Fluoride (Federal)	mg/L	AP-4A	4	0.215	0.070	1.176	0.133	0.297	4.000		
Fluoride (Federal)	mg/L	AP-4B	4	0.250	0.000	1.176	0.250	0.250	4.000		
Fluoride (Federal)	mg/L	AP-4I	4	0.181	0.015	1.176	0.163	0.199	4.000		
Fluoride (Federal)	mg/L	AP-5	4	0.725	1.183	1.176	0.000	2.117	4.000		
Fluoride (Federal)	mg/L	AP-5A	4	0.250	0.000	1.176	0.250	0.250	4.000		
Fluoride (Federal)	mg/L	AP-6A	4	0.050	0.000	1.176	0.050	0.050	4.000		
Fluoride (Federal)	mg/L	AP-6B	4	0.148	0.069	1.176	0.066	0.229	4.000		
Fluoride (Federal)	mg/L	AP-7	4	0.140	0.022	1.176	0.115	0.165	4.000		
Fluoride (Federal)	mg/L	AP-8	4	1.035	0.511	1.176	0.434	1.636	4.000		
Lead, Total (Federal)	ug/L	AP-1R	4	4.025	1.950	1.176	1.731	6.319	47.800		
Lead, Total (Federal)	ug/L	AP-2A	4	5.000	0.000	1.176	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-2BO	4	5.000	0.000	1.176	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-3	4	5.000	0.000	1.176	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-3A	4	5.000	0.000	1.176	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-4A	4	5.000	0.000	1.176	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-4B	4	5.000	0.000	1.176	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-4I	4	5.000	0.000	1.176	5.000	5.000	47.800		

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

Table 1

Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Lead, Total (Federal)	ug/L	AP-5	4	5.000	0.000	1.176	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-5A	4	5.000	0.000	1.176	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-6A	4	5.000	0.000	1.176	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-6B	4	5.000	0.000	1.176	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-7	4	5.000	0.000	1.176	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-8	4	4.850	0.300	1.176	4.497	5.203	47.800		
Lithium, Total (Federal)	ug/L	AP-1R	4	10.000	0.000	1.176	10.000	10.000	2687.648		
Lithium, Total (Federal)	ug/L	AP-2A	4	66.575	6.238	1.176	59.238	73.912	2687.648		
Lithium, Total (Federal)	ug/L	AP-2BO	4	10.000	0.000	1.176	10.000	10.000	2687.648		
Lithium, Total (Federal)	ug/L	AP-3	4	10.000	0.000	1.176	10.000	10.000	2687.648		
Lithium, Total (Federal)	ug/L	AP-3A	4	10.000	0.000	1.176	10.000	10.000	2687.648		
Lithium, Total (Federal)	ug/L	AP-4A	4	35.025	6.781	1.176	27.049	43.001	2687.648		
Lithium, Total (Federal)	ug/L	AP-4B	4	10.000	0.000	1.176	10.000	10.000	2687.648		
Lithium, Total (Federal)	ug/L	AP-4I	4	10.000	0.000	1.176	10.000	10.000	2687.648		
Lithium, Total (Federal)	ug/L	AP-5	4	50.000	0.000	1.176	50.000	50.000	2687.648		
Lithium, Total (Federal)	ug/L	AP-5A	4	10.000	0.000	1.176	10.000	10.000	2687.648		
Lithium, Total (Federal)	ug/L	AP-6A	4	10.000	0.000	1.176	10.000	10.000	2687.648		
Lithium, Total (Federal)	ug/L	AP-6B	4	10.000	0.000	1.176	10.000	10.000	2687.648		
Lithium, Total (Federal)	ug/L	AP-7	4	10.000	0.000	1.176	10.000	10.000	2687.648		
Lithium, Total (Federal)	ug/L	AP-8	4	73.650	37.579	1.176	29.447	117.853	2687.648		
Mercury, total (Federal)	ug/L	AP-1R	4	0.100	0.000	1.176	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-2A	4	0.100	0.000	1.176	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-2BO	4	0.100	0.000	1.176	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-3	4	0.100	0.000	1.176	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-3A	4	0.100	0.000	1.176	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-4A	4	0.100	0.000	1.176	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-4B	4	0.100	0.000	1.176	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-4I	4	0.100	0.000	1.176	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-5	4	0.100	0.000	1.176	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-5A	4	0.100	0.000	1.176	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-6A	4	0.100	0.000	1.176	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-6B	4	0.100	0.000	1.176	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-7	4	0.100	0.000	1.176	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-8	4	0.100	0.000	1.176	0.100	0.100	2.000		
Molybdenum, Total (Federal)	ug/L	AP-1R	4	31.325	21.566	1.176	5.957	56.693	660.000		
Molybdenum, Total (Federal)	ug/L	AP-2A	4	1084.750	224.582	1.176	820.577	1348.923	660.000	dec	**
Molybdenum, Total (Federal)	ug/L	AP-2BO	4	494.000	54.657	1.176	429.708	558.292	660.000	dec	
Molybdenum, Total (Federal)	ug/L	AP-3	4	37.775	24.450	1.176	9.015	66.535	660.000		
Molybdenum, Total (Federal)	ug/L	AP-3A	4	554.000	31.005	1.176	517.529	590.471	660.000	dec	
Molybdenum, Total (Federal)	ug/L	AP-4A	4	233.000	18.239	1.176	211.545	254.455	660.000		

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

Table 1

Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Molybdenum, Total (Federal)	ug/L	AP-4B	4	5.000	0.000	1.176	5.000	5.000	660.000		
Molybdenum, Total (Federal)	ug/L	AP-4I	4	65.625	18.052	1.176	44.390	86.860	660.000		
Molybdenum, Total (Federal)	ug/L	AP-5	4	58.925	20.084	1.176	35.300	82.550	660.000	dec	
Molybdenum, Total (Federal)	ug/L	AP-5A	4	314.250	100.656	1.176	195.850	432.650	660.000		
Molybdenum, Total (Federal)	ug/L	AP-6A	4	5.000	0.000	1.176	5.000	5.000	660.000		
Molybdenum, Total (Federal)	ug/L	AP-6B	4	5.000	0.000	1.176	5.000	5.000	660.000		
Molybdenum, Total (Federal)	ug/L	AP-7	4	37.850	24.300	1.176	9.266	66.434	660.000		
Molybdenum, Total (Federal)	ug/L	AP-8	4	4.275	1.450	1.176	2.569	5.981	660.000		
Selenium, Total (Federal)	ug/L	AP-1R	4	0.500	0.000	1.176	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-2A	4	1.325	0.960	1.176	0.195	2.455	50.000		
Selenium, Total (Federal)	ug/L	AP-2BO	4	0.500	0.000	1.176	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-3	4	2.625	0.320	1.176	2.248	3.002	50.000		
Selenium, Total (Federal)	ug/L	AP-3A	4	0.500	0.000	1.176	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-4A	4	0.500	0.000	1.176	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-4B	4	14.675	1.700	1.176	12.676	16.674	50.000		
Selenium, Total (Federal)	ug/L	AP-4I	4	0.500	0.000	1.176	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-5	4	2.575	0.544	1.176	1.935	3.215	50.000		
Selenium, Total (Federal)	ug/L	AP-5A	4	0.500	0.000	1.176	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-6A	4	0.500	0.000	1.176	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-6B	4	4.600	1.219	1.176	3.166	6.034	50.000		
Selenium, Total (Federal)	ug/L	AP-7	4	0.500	0.000	1.176	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-8	4	1.125	0.506	1.176	0.530	1.720	50.000		
Thallium, Total (Federal)	ug/L	AP-1R	4	0.500	0.000	1.176	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-2A	4	0.500	0.000	1.176	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-2BO	4	0.500	0.000	1.176	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-3	4	0.500	0.000	1.176	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-3A	4	0.500	0.000	1.176	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-4A	4	0.500	0.000	1.176	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-4B	4	0.500	0.000	1.176	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-4I	4	0.500	0.000	1.176	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-5	4	0.500	0.000	1.176	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-5A	4	0.500	0.000	1.176	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-6A	4	0.500	0.000	1.176	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-6B	4	0.500	0.000	1.176	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-7	4	0.500	0.000	1.176	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-8	4	0.500	0.000	1.176	0.500	0.500	2.300		
Total Radium (Federal)	pCi/L	AP-1R	4	0.981	0.114	1.176	0.847	1.115	5.000		
Total Radium (Federal)	pCi/L	AP-2A	4	2.090	0.514	1.176	1.485	2.695	5.000		
Total Radium (Federal)	pCi/L	AP-2BO	4	1.108	0.454	1.176	0.573	1.642	5.000		
Total Radium (Federal)	pCi/L	AP-3	4	0.791	0.216	1.176	0.536	1.045	5.000		

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

Table 1

Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Total Radium (Federal)	pCi/L	AP-3A	4	1.114	0.211	1.176	0.865	1.362	5.000		
Total Radium (Federal)	pCi/L	AP-4A	4	1.365	0.481	1.176	0.799	1.931	5.000		
Total Radium (Federal)	pCi/L	AP-4B	4	0.690	0.380	1.176	0.243	1.137	5.000		
Total Radium (Federal)	pCi/L	AP-4I	4	0.895	0.227	1.176	0.628	1.162	5.000		
Total Radium (Federal)	pCi/L	AP-5	4	0.941	0.440	1.176	0.424	1.458	5.000		
Total Radium (Federal)	pCi/L	AP-5A	4	0.858	0.415	1.176	0.369	1.346	5.000		
Total Radium (Federal)	pCi/L	AP-6A	4	0.848	0.245	1.176	0.560	1.136	5.000		
Total Radium (Federal)	pCi/L	AP-6B	4	0.902	0.276	1.176	0.577	1.227	5.000		
Total Radium (Federal)	pCi/L	AP-7	4	1.193	0.642	1.176	0.437	1.948	5.000		
Total Radium (Federal)	pCi/L	AP-8	4	1.331	0.380	1.176	0.884	1.779	5.000		

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

Table 1

Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Antimony, Total (Federal)	ug/L	AP-1R	8	0.500	0.000	0.670	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-2A	8	2.738	0.697	0.670	2.271	3.204	6.000		
Antimony, Total (Federal)	ug/L	AP-2BO	8	0.500	0.000	0.670	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-3	8	0.500	0.000	0.670	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-3A	8	0.500	0.000	0.670	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-4A	8	0.500	0.000	0.670	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-4B	8	0.500	0.000	0.670	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-4I	8	0.500	0.000	0.670	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-5	8	0.500	0.000	0.670	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-5A	8	0.500	0.000	0.670	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-6A	8	0.500	0.000	0.670	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-6B	8	0.500	0.000	0.670	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-7	8	0.500	0.000	0.670	0.500	0.500	6.000		
Antimony, Total (Federal)	ug/L	AP-8	7	0.500	0.000	0.734	0.500	0.500	6.000		
Arsenic, Total (Federal)	ug/L	AP-1R	8	1.775	0.225	0.670	1.624	1.926	234.000		
Arsenic, Total (Federal)	ug/L	AP-2A	8	416.488	713.472	0.670	0.000	894.381	234.000		
Arsenic, Total (Federal)	ug/L	AP-2BO	8	2.963	1.310	0.670	2.085	3.840	234.000		
Arsenic, Total (Federal)	ug/L	AP-3	8	0.500	0.000	0.670	0.500	0.500	234.000		
Arsenic, Total (Federal)	ug/L	AP-3A	8	1.550	0.239	0.670	1.390	1.710	234.000		
Arsenic, Total (Federal)	ug/L	AP-4A	8	0.500	0.000	0.670	0.500	0.500	234.000		
Arsenic, Total (Federal)	ug/L	AP-4B	8	0.500	0.000	0.670	0.500	0.500	234.000		
Arsenic, Total (Federal)	ug/L	AP-4I	8	0.500	0.000	0.670	0.500	0.500	234.000		
Arsenic, Total (Federal)	ug/L	AP-5	8	0.500	0.000	0.670	0.500	0.500	234.000		
Arsenic, Total (Federal)	ug/L	AP-5A	8	2.162	0.625	0.670	1.744	2.581	234.000		
Arsenic, Total (Federal)	ug/L	AP-6A	8	0.888	0.730	0.670	0.399	1.376	234.000		
Arsenic, Total (Federal)	ug/L	AP-6B	8	0.500	0.000	0.670	0.500	0.500	234.000		
Arsenic, Total (Federal)	ug/L	AP-7	8	2.375	0.868	0.670	1.794	2.956	234.000		
Arsenic, Total (Federal)	ug/L	AP-8	8	6.550	2.667	0.670	4.763	8.337	234.000		
Barium, Total (Federal)	ug/L	AP-1R	8	64.325	7.210	0.670	59.495	69.155	2000.000		
Barium, Total (Federal)	ug/L	AP-2A	8	48.700	3.638	0.670	46.263	51.137	2000.000		
Barium, Total (Federal)	ug/L	AP-2BO	8	24.663	1.264	0.670	23.816	25.509	2000.000		
Barium, Total (Federal)	ug/L	AP-3	8	29.537	6.661	0.670	25.076	33.999	2000.000		
Barium, Total (Federal)	ug/L	AP-3A	8	34.675	1.406	0.670	33.733	35.617	2000.000		
Barium, Total (Federal)	ug/L	AP-4A	8	29.875	2.197	0.670	28.404	31.346	2000.000		
Barium, Total (Federal)	ug/L	AP-4B	8	100.050	13.880	0.670	90.753	109.347	2000.000	inc	
Barium, Total (Federal)	ug/L	AP-4I	8	24.225	4.540	0.670	21.184	27.266	2000.000		
Barium, Total (Federal)	ug/L	AP-5	8	34.313	12.073	0.670	26.226	42.399	2000.000		
Barium, Total (Federal)	ug/L	AP-5A	8	27.650	4.065	0.670	24.927	30.373	2000.000		
Barium, Total (Federal)	ug/L	AP-6A	8	25.463	3.746	0.670	22.953	27.972	2000.000	dec	
Barium, Total (Federal)	ug/L	AP-6B	8	29.713	3.836	0.670	27.143	32.282	2000.000		

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

Table 1

Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Barium, Total (Federal)	ug/L	AP-7	8	81.525	9.352	0.670	75.261	87.789	2000.000	inc	
Barium, Total (Federal)	ug/L	AP-8	8	18.063	2.865	0.670	16.144	19.981	2000.000		
Beryllium, Total (Federal)	ug/L	AP-1R	8	0.325	0.000	0.670	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-2A	8	0.325	0.000	0.670	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-2BO	8	0.325	0.000	0.670	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-3	8	0.325	0.000	0.670	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-3A	8	0.325	0.000	0.670	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-4A	8	0.325	0.000	0.670	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-4B	8	0.325	0.000	0.670	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-4I	8	0.325	0.000	0.670	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-5	8	0.325	0.000	0.670	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-5A	8	0.325	0.000	0.670	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-6A	8	0.325	0.000	0.670	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-6B	8	0.325	0.000	0.670	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-7	8	0.325	0.000	0.670	0.325	0.325	4.000		
Beryllium, Total (Federal)	ug/L	AP-8	7	4.043	2.094	0.734	2.506	5.580	4.000		
Cadmium, Total (Federal)	ug/L	AP-1R	8	1.000	0.000	0.670	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-2A	8	1.413	1.167	0.670	0.631	2.194	5.000		
Cadmium, Total (Federal)	ug/L	AP-2BO	8	0.901	0.279	0.670	0.714	1.088	5.000		
Cadmium, Total (Federal)	ug/L	AP-3	8	1.000	0.000	0.670	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-3A	8	1.000	0.000	0.670	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-4A	8	1.000	0.000	0.670	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-4B	8	1.000	0.000	0.670	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-4I	8	1.000	0.000	0.670	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-5	8	1.000	0.000	0.670	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-5A	8	1.000	0.000	0.670	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-6A	8	1.000	0.000	0.670	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-6B	8	1.000	0.000	0.670	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-7	8	1.000	0.000	0.670	1.000	1.000	5.000		
Cadmium, Total (Federal)	ug/L	AP-8	8	11.025	7.209	0.670	6.196	15.854	5.000		**
Chromium, Total (Federal)	ug/L	AP-1R	8	5.000	0.000	0.670	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-2A	8	5.000	0.000	0.670	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-2BO	8	5.000	0.000	0.670	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-3	8	5.000	0.000	0.670	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-3A	8	5.000	0.000	0.670	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-4A	8	5.000	0.000	0.670	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-4B	8	5.000	0.000	0.670	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-4I	8	5.000	0.000	0.670	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-5	8	5.000	0.000	0.670	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-5A	8	5.000	0.000	0.670	5.000	5.000	100.000		

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

Table 1

Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Chromium, Total (Federal)	ug/L	AP-6A	8	5.000	0.000	0.670	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-6B	8	4.625	1.061	0.670	3.915	5.335	100.000		
Chromium, Total (Federal)	ug/L	AP-7	8	5.000	0.000	0.670	5.000	5.000	100.000		
Chromium, Total (Federal)	ug/L	AP-8	5	5.000	0.000	0.953	5.000	5.000	100.000		
Cobalt, Total (Federal)	ug/L	AP-1R	8	1.850	0.283	0.670	1.661	2.039	6.000		
Cobalt, Total (Federal)	ug/L	AP-2A	8	1.800	0.000	0.670	1.800	1.800	6.000		
Cobalt, Total (Federal)	ug/L	AP-2BO	8	3.425	0.667	0.670	2.978	3.872	6.000		
Cobalt, Total (Federal)	ug/L	AP-3	8	1.800	0.000	0.670	1.800	1.800	6.000		
Cobalt, Total (Federal)	ug/L	AP-3A	8	1.800	0.000	0.670	1.800	1.800	6.000		
Cobalt, Total (Federal)	ug/L	AP-4A	8	0.500	0.000	0.670	0.500	0.500	6.000		
Cobalt, Total (Federal)	ug/L	AP-4B	8	0.500	0.000	0.670	0.500	0.500	6.000		
Cobalt, Total (Federal)	ug/L	AP-4I	8	2.363	0.427	0.670	2.076	2.649	6.000		
Cobalt, Total (Federal)	ug/L	AP-5	8	3.788	3.849	0.670	1.210	6.365	6.000		
Cobalt, Total (Federal)	ug/L	AP-5A	8	1.613	0.348	0.670	1.379	1.846	6.000		
Cobalt, Total (Federal)	ug/L	AP-6A	8	0.500	0.000	0.670	0.500	0.500	6.000		
Cobalt, Total (Federal)	ug/L	AP-6B	8	0.500	0.000	0.670	0.500	0.500	6.000		
Cobalt, Total (Federal)	ug/L	AP-7	8	0.500	0.000	0.670	0.500	0.500	6.000		
Cobalt, Total (Federal)	ug/L	AP-8	8	566.000	214.397	0.670	422.394	709.606	6.000		**
Fluoride (Federal)	mg/L	AP-1R	8	0.233	0.049	0.670	0.199	0.266	4.000		
Fluoride (Federal)	mg/L	AP-2A	8	0.452	0.828	0.670	0.000	1.006	4.000		
Fluoride (Federal)	mg/L	AP-2BO	8	0.050	0.000	0.670	0.050	0.050	4.000		
Fluoride (Federal)	mg/L	AP-3	8	0.229	0.098	0.670	0.164	0.295	4.000		
Fluoride (Federal)	mg/L	AP-3A	8	0.211	0.096	0.670	0.147	0.275	4.000		
Fluoride (Federal)	mg/L	AP-4A	8	0.203	0.067	0.670	0.158	0.247	4.000		
Fluoride (Federal)	mg/L	AP-4B	8	0.232	0.049	0.670	0.199	0.266	4.000		
Fluoride (Federal)	mg/L	AP-4I	8	0.188	0.029	0.670	0.169	0.208	4.000		
Fluoride (Federal)	mg/L	AP-5	8	0.737	1.088	0.670	0.009	1.466	4.000		
Fluoride (Federal)	mg/L	AP-5A	8	0.250	0.000	0.670	0.250	0.250	4.000		
Fluoride (Federal)	mg/L	AP-6A	8	0.050	0.000	0.670	0.050	0.050	4.000		
Fluoride (Federal)	mg/L	AP-6B	8	0.199	0.071	0.670	0.151	0.246	4.000		
Fluoride (Federal)	mg/L	AP-7	8	0.436	0.834	0.670	0.000	0.995	4.000		
Fluoride (Federal)	mg/L	AP-8	8	0.989	0.471	0.670	0.673	1.304	4.000		
Lead, Total (Federal)	ug/L	AP-1R	8	4.513	1.379	0.670	3.589	5.436	47.800		
Lead, Total (Federal)	ug/L	AP-2A	8	4.563	1.237	0.670	3.734	5.391	47.800		
Lead, Total (Federal)	ug/L	AP-2BO	8	5.000	0.000	0.670	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-3	8	5.000	0.000	0.670	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-3A	8	5.000	0.000	0.670	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-4A	8	5.000	0.000	0.670	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-4B	8	5.000	0.000	0.670	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-4I	8	5.000	0.000	0.670	5.000	5.000	47.800		

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

Table 1

Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Lead, Total (Federal)	ug/L	AP-5	8	5.000	0.000	0.670	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-5A	8	5.000	0.000	0.670	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-6A	8	5.000	0.000	0.670	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-6B	8	5.000	0.000	0.670	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-7	8	5.000	0.000	0.670	5.000	5.000	47.800		
Lead, Total (Federal)	ug/L	AP-8	8	4.925	0.212	0.670	4.783	5.067	47.800		
Lithium, Total (Federal)	ug/L	AP-1R	8	10.000	0.000	0.670	10.000	10.000	2687.648		
Lithium, Total (Federal)	ug/L	AP-2A	8	72.725	13.193	0.670	63.888	81.562	2687.648		
Lithium, Total (Federal)	ug/L	AP-2BO	8	11.975	5.586	0.670	8.233	15.717	2687.648		
Lithium, Total (Federal)	ug/L	AP-3	8	10.000	0.000	0.670	10.000	10.000	2687.648		
Lithium, Total (Federal)	ug/L	AP-3A	8	10.000	0.000	0.670	10.000	10.000	2687.648		
Lithium, Total (Federal)	ug/L	AP-4A	8	40.375	8.436	0.670	34.725	46.025	2687.648		
Lithium, Total (Federal)	ug/L	AP-4B	8	10.000	0.000	0.670	10.000	10.000	2687.648		
Lithium, Total (Federal)	ug/L	AP-4I	8	10.000	0.000	0.670	10.000	10.000	2687.648		
Lithium, Total (Federal)	ug/L	AP-5	8	46.713	9.298	0.670	40.484	52.941	2687.648		
Lithium, Total (Federal)	ug/L	AP-5A	8	10.000	0.000	0.670	10.000	10.000	2687.648		
Lithium, Total (Federal)	ug/L	AP-6A	8	10.000	0.000	0.670	10.000	10.000	2687.648		
Lithium, Total (Federal)	ug/L	AP-6B	8	10.000	0.000	0.670	10.000	10.000	2687.648		
Lithium, Total (Federal)	ug/L	AP-7	8	10.000	0.000	0.670	10.000	10.000	2687.648		
Lithium, Total (Federal)	ug/L	AP-8	8	69.363	27.323	0.670	51.061	87.664	2687.648		
Mercury, total (Federal)	ug/L	AP-1R	8	0.100	0.000	0.670	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-2A	8	0.100	0.000	0.670	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-2BO	8	0.100	0.000	0.670	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-3	8	0.100	0.000	0.670	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-3A	8	0.100	0.000	0.670	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-4A	8	0.100	0.000	0.670	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-4B	8	0.100	0.000	0.670	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-4I	8	0.100	0.000	0.670	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-5	8	0.100	0.000	0.670	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-5A	8	0.100	0.000	0.670	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-6A	8	0.100	0.000	0.670	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-6B	8	0.100	0.000	0.670	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-7	8	0.100	0.000	0.670	0.100	0.100	2.000		
Mercury, total (Federal)	ug/L	AP-8	4	0.100	0.000	1.176	0.100	0.100	2.000		
Molybdenum, Total (Federal)	ug/L	AP-1R	8	22.788	16.822	0.670	11.520	34.055	660.000		
Molybdenum, Total (Federal)	ug/L	AP-2A	8	1506.125	530.639	0.670	1150.696	1861.554	660.000	dec	**
Molybdenum, Total (Federal)	ug/L	AP-2BO	8	339.250	171.004	0.670	224.710	453.790	660.000	dec	
Molybdenum, Total (Federal)	ug/L	AP-3	8	37.775	22.636	0.670	22.613	52.937	660.000		
Molybdenum, Total (Federal)	ug/L	AP-3A	8	579.375	47.189	0.670	547.767	610.983	660.000	dec	
Molybdenum, Total (Federal)	ug/L	AP-4A	8	222.375	21.051	0.670	208.275	236.475	660.000		

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

Table 1

Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Molybdenum, Total (Federal)	ug/L	AP-4B	8	5.000	0.000	0.670	5.000	5.000	660.000		
Molybdenum, Total (Federal)	ug/L	AP-4I	8	90.400	44.734	0.670	60.437	120.363	660.000		
Molybdenum, Total (Federal)	ug/L	AP-5	8	71.300	34.572	0.670	48.143	94.457	660.000	dec	
Molybdenum, Total (Federal)	ug/L	AP-5A	8	272.625	80.089	0.670	218.980	326.270	660.000		
Molybdenum, Total (Federal)	ug/L	AP-6A	8	5.000	0.000	0.670	5.000	5.000	660.000		
Molybdenum, Total (Federal)	ug/L	AP-6B	8	5.000	0.000	0.670	5.000	5.000	660.000		
Molybdenum, Total (Federal)	ug/L	AP-7	8	43.925	17.183	0.670	32.416	55.434	660.000		
Molybdenum, Total (Federal)	ug/L	AP-8	8	4.638	1.025	0.670	3.951	5.324	660.000		
Selenium, Total (Federal)	ug/L	AP-1R	8	0.500	0.000	0.670	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-2A	8	0.913	0.768	0.670	0.398	1.427	50.000		
Selenium, Total (Federal)	ug/L	AP-2BO	8	0.500	0.000	0.670	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-3	8	2.413	0.508	0.670	2.072	2.753	50.000		
Selenium, Total (Federal)	ug/L	AP-3A	8	0.500	0.000	0.670	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-4A	8	0.500	0.000	0.670	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-4B	8	13.200	3.598	0.670	10.790	15.610	50.000		
Selenium, Total (Federal)	ug/L	AP-4I	8	0.500	0.000	0.670	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-5	8	2.650	0.891	0.670	2.053	3.247	50.000		
Selenium, Total (Federal)	ug/L	AP-5A	8	0.500	0.000	0.670	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-6A	8	0.500	0.000	0.670	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-6B	8	3.475	1.526	0.670	2.453	4.497	50.000		
Selenium, Total (Federal)	ug/L	AP-7	8	0.500	0.000	0.670	0.500	0.500	50.000		
Selenium, Total (Federal)	ug/L	AP-8	8	1.450	1.240	0.670	0.620	2.280	50.000		
Thallium, Total (Federal)	ug/L	AP-1R	8	0.500	0.000	0.670	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-2A	8	0.500	0.000	0.670	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-2BO	8	0.500	0.000	0.670	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-3	8	0.500	0.000	0.670	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-3A	8	0.500	0.000	0.670	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-4A	8	0.500	0.000	0.670	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-4B	8	0.500	0.000	0.670	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-4I	8	0.500	0.000	0.670	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-5	8	0.500	0.000	0.670	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-5A	8	0.500	0.000	0.670	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-6A	8	0.500	0.000	0.670	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-6B	8	0.500	0.000	0.670	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-7	8	0.500	0.000	0.670	0.500	0.500	2.300		
Thallium, Total (Federal)	ug/L	AP-8	7	0.500	0.000	0.734	0.500	0.500	2.300		
Total Radium (Federal)	pCi/L	AP-1R	8	0.974	0.128	0.670	0.888	1.060	5.000		
Total Radium (Federal)	pCi/L	AP-2A	8	1.726	0.559	0.670	1.351	2.101	5.000		
Total Radium (Federal)	pCi/L	AP-2BO	8	1.153	0.323	0.670	0.936	1.369	5.000		
Total Radium (Federal)	pCi/L	AP-3	8	0.737	0.174	0.670	0.621	0.853	5.000		

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

Table 1

Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Total Radium (Federal)	pCi/L	AP-3A	8	1.273	0.316	0.670	1.061	1.485	5.000		
Total Radium (Federal)	pCi/L	AP-4A	8	1.323	0.467	0.670	1.009	1.636	5.000		
Total Radium (Federal)	pCi/L	AP-4B	8	0.767	0.360	0.670	0.525	1.008	5.000		
Total Radium (Federal)	pCi/L	AP-4I	8	1.143	0.528	0.670	0.790	1.497	5.000		
Total Radium (Federal)	pCi/L	AP-5	8	1.093	0.580	0.670	0.705	1.482	5.000		
Total Radium (Federal)	pCi/L	AP-5A	8	0.939	0.336	0.670	0.714	1.164	5.000		
Total Radium (Federal)	pCi/L	AP-6A	8	0.819	0.292	0.670	0.624	1.014	5.000		
Total Radium (Federal)	pCi/L	AP-6B	8	0.851	0.189	0.670	0.724	0.977	5.000		
Total Radium (Federal)	pCi/L	AP-7	8	1.277	0.563	0.670	0.900	1.654	5.000		
Total Radium (Federal)	pCi/L	AP-8	8	1.235	0.334	0.670	1.011	1.458	5.000		

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

Table 1: 95% LCL Compared to GWPS

Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station, Petersburg, Indiana
Atlas Project No. 170AES0003

Sample ID	Through Sample Date	Antimony, Total	Arsenic, Total	Barium, Total	Beryllium, Total	Cadmium, Total	Chromium, Total	Cobalt, Total	Fluoride	Lead, Total	Lithium, Total	Mercury, Total	Molybdenum, Total	Selenium, Total	Thallium, Total	Radium 226/228 Combined
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L
	GWPS (greater of MCL/USEPA Amendment Level, or background PL)	**6**	**234**	**2000**	**4**	**5**	**100**	**6**	**4**	**47.8**	**2687.6481**	**2**	**660**	**50**	**2.3**	**5**
	MCL	6	10	2000	4	5	100	-	4	15	-	2	-	50	2	5
	USEPA'S Amendments to the National Minimum Criteria*	-	-	-	-	-	-	6	-	15	40	-	100	-	-	-
	Prediction Limit (based on background data through May 2024)	2.1	234	80.4	0.65	2	10	3.7	0.35	47.8	2687.6481	0.35	660	5.9	2.3	3.6665
Shallow Zone																
AP-1R	September 2018	3	5	46	2	1	5	10	2.5	5	50	0	50	2	2	0
	May 2019	3	2	47	1	1	5	10	2.5	5	50	0	24	2	2	0.511
	November 2019	3	1	47	1	1	5	10	2.5	5	50	0	10	2	2	0.549
	May 2020	3	0	49	1	1	5	10	0.505	5	50	0	5	2	2	0.182
	November 2020	2	1	54	1	1	5	10	0.505	5	50	0	14	2	2	0.182
	May 2021	2	1	52	1	1	5	10	0.505	5	50	0	14	2	1	0.081
	November 2021	2.500	1.627	57.663	0.500	1.000	5.000	10.000	0.149	5.000	50.000	0.100	13.488	2.500	1.000	0.793
	May 2022	2.500	1.704	59.157	0.500	1.000	5.000	10.000	0.300	5.000	50.000	0.100	13.161	0.500	0.500	0.780
	November 2022	0.700	1.534	53.342	0.500	1.000	5.000	3.714	0.141	5.000	50.000	0.100	1.765	0.500	0.500	0.858
	May 2023	0.700	1.454	53.271	0.325	1.000	5.000	0.546	0.133	1.731	10.000	0.100	0.568	0.500	0.500	0.877
	November 2023	0.700	1.454	53.231	0.325	1.000	5.000	0.546	0.133	1.731	10.000	0.100	6.190	0.500	0.500	0.944
	May 2024	0.500	1.360	52.085	0.325	1.000	5.000	1.401	0.133	1.731	10	0.100	5.957	0.500	0.500	0.847
AP-2BO	September 2018	3	5	18	2	1	5	10	2.5	5	50	0	406	2	2	0.413
	May 2019	3	3	17	1	1	5	4	2.5	5	50	0	298	2	2	0.371
	November 2019	3	2	17	1	1	5	1	2.5	5	50	0	183	2	2	0.501
	May 2020	3	1	21	1	1	5	0	2.5	5	50	0	157	2	2	0.212
	November 2020	2	2	23	1	1	5	3	2.5	5	50	0	99	2	2	0.845
	May 2021	2	2	24	1	1	5	2	0.300	5	50	0	65	2	1	0.623
	November 2021	2.500	1.839	23.749	0.5	1.000	5.000	2.565	0.300	5.000	29.717	0.100	48.318 264.819 (N=10)	2.500	1.000	0.886
	May 2022	2.500	1.756	23.747	0.500	1.000	5.000	2.757	0.250	5.000	29.717	0.100	140.734	0.500	0.500	0.988
	November 2022	0.500	1.557	25.466	0.100	1.000	5.000	2.815	0.050	5.000	4.657	1.000	60.105	0.500	0.500	0.953
	May 2023	2.500	1.668	24.471	0.325		5.000	2.925	0.250	5.000	29.717	0.100	99.448	0.500	0.500	0.990
	November 2023	2.500	1.739	22.943	0.325	0.338	5.000	2.716	0.250	5.000	10.000	0.100	205.016	0.500	0.500	1.076
	May 2024	0.500	1.824	22.655	0.325	0.338	5.000	2.572	0.050	5.000	10.000	0.100	429.708	0.500	0.500	0.573

Table 1: 95% LCL Compared to GWPS
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station, Petersburg, Indiana
Atlas Project No. 170AES0003

Sample ID	Through Sample Date	Antimony, Total	Arsenic, Total	Barium, Total	Beryllium, Total	Cadmium, Total	Chromium, Total	Cobalt, Total	Fluoride	Lead, Total	Lithium, Total	Mercury, Total	Molybdenum, Total	Selenium, Total	Thallium, Total	Radium 226/228 Combined
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L
	GWPS (greater of MCL/USEPA Amendment Level, or background PL)	**6**	**234**	**2000**	**4**	**5**	**100**	**6**	**4**	**47.8**	**2687.6481**	**2**	**660**	**50**	**2.3**	**5**
	MCL	6	10	2000	4	5	100	-	4	15	-	2	-	50	2	5
	USEPA'S Amendments to the National Minimum Criteria*	-	-	-	-	-	-	6	-	15	40	-	100	-	-	-
	Prediction Limit (based on background data through May 2024)	2.1	234	80.4	0.65	2	10	3.7	0.35	47.8	2687.6481	0.35	660	5.9	2.3	3.6665
AP-3	September 2018	3	5	13	2	1	5	10	2.5	5	50	0	50	2	2	0.248
	May 2019	3	5	14	1	1	5	3	0.505	5	50	0	50	2	2	0.260
	November 2019	3	5	13	1	1	5	3	0.505	5	50	0	50	2	2	0.336
	May 2020	2	3	19	1	1	5	0	0	5	50	0	50	2	2	0.049
	November 2020	2	2	22	1	1	5	0	0	5	50	0	50	1	2	0.049
	May 2021	2	2	25	1	1	5	4	0.514	5	50	0	50	1	1	0.000
	November 2021	2.500	2.249	24.051	0.500	1.000	5.000	4.049 5.499 (N=8)	0.514	5.000	50.000	0.100	50.000	1.401	1.000	0.534
	May 2022	0.700	2.5	17.448	0.500	1.000	5.000	10	0.514	5.000	50.000	0.100	9.015	1.475	0.500	0.468
	November 2022	0.700	0.600	18.017	0.500	1.000	5.000	10.000	0.000	5.000	50.000	0.100	9.015	2.111	0.500	0.517
	May 2023	0.500	0.600	19.386	0.325	1.000	5.000	10.000	0.000	5.000	10.000	0.100	0.000	2.154	0.500	0.576
	November 2023	0.500	0.500	19.515	0.325	1.000	5.000	10.000	0.047	5.000	10.000	0.100	0.000	2.336	0.500	0.536
	May 2024	0.500	0.500	26.512	0.325	1.000	5.000	1.800	0.067	5.000	10.000	0.100	9.015	2.248	0.500	0.536
AP-4B	September 2018	2	5	42	2	1	5	10	2.5	5	50	0	50	6	2	0.094
	May 2019	3	5	49	1	1	5	10	0.497	5	50	0	50	6	2	0
	November 2019	3	5	48	1	1	5	10	0.497	5	50	0	50	7	2	0.132
	May 2020	2	2	45	1	1	5	10	0.497	5	50	0	50	6	2	0.328
	November 2020	2	2	62	1	1	5	10	0.497	5	50	0	50	6	2	0.708
	May 2021	2	2	63	1	1	5	10	2.5	5	50	0	50	4	1	0.704
	November 2021	2.500	2.500	75.904	0.500	1.000	5.000	10.000	0.300	5.000	50.000	0.100	50.000	4.454	1.000	0.530
	May 2022	0.700	0.600	75.078	0.500	1.000	5.000	10.000	0.141	5.000	50.000	0.100	50.000	6.269	0.500	0.399
	November 2022	0.700	0.600	94.462	0.500	1.000	5.000	10.000	0.141	5.000	50.000	0.100	50.000	9.870	0.500	0.336
	May 2023	0.500	0.500	94.413	0.325	1.000	5.000	1.800	0.133	5.000	10.000	0.100	50.000	9.938	0.500	0.265
	November 2023	0.500	0.500	93.724	0.325	1.000	5.000	1.800	0.133	5.000	10.000	0.100	50.000	13.541	0.500	0.243
	May 2024	0.500	0.500	94.652	0.325	1.000	5.000	0.500	0.250	5.000	10.000	0.100	5.000	12.676	0.500	0.243

Table 1: 95% LCL Compared to GWPS

Multiunit Ash Pond System

AES Indiana

Petersburg Generating Station, Petersburg, Indiana

Atlas Project No. 170AES0003

Sample ID	Through Sample Date	Antimony, Total	Arsenic, Total	Barium, Total	Beryllium, Total	Cadmium, Total	Chromium, Total	Cobalt, Total	Fluoride	Lead, Total	Lithium, Total	Mercury, Total	Molybdenum, Total	Selenium, Total	Thallium, Total	Radium 226/228 Combined
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L
	GWPS (greater of MCL/USEPA Amendment Level, or background PL)	**6**	**234**	**2000**	**4**	**5**	**100**	**6**	**4**	**47.8**	**2687.6481**	**2**	**660**	**50**	**2.3**	**5**
	MCL	6	10	2000	4	5	100	-	4	15	-	2	-	50	2	5
	USEPA'S Amendments to the National Minimum Criteria*	-	-	-	-	-	-	6	-	15	40	-	100	-	-	-
	Prediction Limit (based on background data through May 2024)	2.1	234	80.4	0.65	2	10	3.7	0.35	47.8	2687.6481	0.35	660	5.9	2.3	3.6665
AP-4I	September 2018	3	5	19	2	1	5	10	2.5	5	50	0	35	2	2	1.161
	May 2019	3	5	19	2	1	5	3	0.547	5	50	0	37	2	2	1.219
	November 2019	3	5	19	2	1	5	1	0	5	50	0	54	2	2	1.096
	May 2020	3	2	22	1	1	5	0	0	5	32	0	85	2	2	0.413
	November 2020	2	2	28	1	1	5	2	0.15	5	32	0	77	2	2	0.302
	May 2021	2	2	26	1	1	5	2	0.145	5	32	0	84	2	1	0.161
	November 2021	2.500	2.500	26.374	0.500	1.000	5.000	1.839	0.15	5.000	31.561	0.100	79.542	2.500	1.000	0.251
	May 2022	2.500	0.600	22.335	0.500	1.000	5.000	1.863	0.147	5.000	50	0.100	53.979	0.800	0.500	0.616
	November 2022	0.700	0.600	21.239	0.500	1.000	5.000	1.975	0.146	5.000	50.000	0.100	45.220	0.800	0.500	0.535
	May 2023	0.700	0.500	16.271	0.325	1.000	5.000	1.975	0.161	5.000	50.000	0.100	29.013	0.500	0.500	0.654
	November 2023	0.700	0.500	17.070	0.325	1.000	5.000	2.032	0.155	5.000	10.000	0.100	42.789	0.500	0.500	0.619
	May 2024	0.500	0.500	17.157	0.325	1.000	5.000	1.824	0.163	5.000	10.000	0.100	44.390	0.500	0.500	0.628
AP-5	September 2018	3	5	17	2	1	5	10	2.5	5	50	0	60	2	2	0.107
	May 2019	3	5	19	2	1	5	3	0.564	5	26	0	62	2	2	0
	November 2019	3	5	22	2	1	5	1	0	5	16	0	114	2	2	0.248
	May 2020	2	2	23	1	1	5	0	0	5	14	0	123	2	2	0.000
	November 2020	2	2	26	1	1	5	2	0.18	5	19	0	108	2	2	0.365
	May 2021	2	2	17	1	1	5	1	0	5	16	0	69	2	1	0.237
	November 2021	2.500	2.500	17.864	0.500	1.000	5.000	1.287	0.000	5.000	22.562	0.100	74.912	1.154	1.000	0.195
	May 2022	0.700	0.600	18.032	0.500	1.000	5.000	1.287	0.000	5.000	27.957	0.100	31.372	1.264	0.500	0.390
	November 2022	0.700	0.600	15.487	0.500	1.000	5.000	1.462	0.000	5.000	50.000	0.100	33.873	1.295	0.500	0.243
	May 2023	0.500	0.500	28.497	0.325	1.000	5.000	1.462	0.112	5.000	50.000	0.100	24.931	1.336	0.500	0.635
	November 2023	0.500	0.500	31.129	0.325	1.000	5.000	0.000	0.000	5.000	50.000	0.100	27.568	1.912	0.500	0.634
	May 2024	0.500	0.500	24.211	0.325	1.000	5.000	0.000	0.000	5.000	50.000	0.100	35.300	1.935	0.500	0.424

Table 1: 95% LCL Compared to GWPS

Multiunit Ash Pond System

AES Indiana

Petersburg Generating Station, Petersburg, Indiana

Atlas Project No. 170AES0003

Sample ID	Through Sample Date	Antimony, Total	Arsenic, Total	Barium, Total	Beryllium, Total	Cadmium, Total	Chromium, Total	Cobalt, Total	Fluoride	Lead, Total	Lithium, Total	Mercury, Total	Molybdenum, Total	Selenium, Total	Thallium, Total	Radium 226/228 Combined
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L
	GWPS (greater of MCL/USEPA Amendment Level, or background PL)	**6**	**234**	**2000**	**4**	**5**	**100**	**6**	**4**	**47.8**	**2687.6481**	**2**	**660**	**50**	**2.3**	**5**
	MCL	6	10	2000	4	5	100	-	4	15	-	2	-	50	2	5
	USEPA'S Amendments to the National Minimum Criteria*	-	-	-	-	-	-	6	-	15	40	-	100	-	-	-
	Prediction Limit (based on background data through May 2024)	2.1	234	80.4	0.65	2	10	3.7	0.35	47.8	2687.6481	0.35	660	5.9	2.3	3.6665
AP-6B	September 2018	3	5	24	2	1	5	10	2.5	5	50	0	50	2	2	0.122
	May 2019	3	5	23	2	1	5	10	0.497	5	50	0	50	2	2	0.219
	November 2019	3	5	23	2	1	5	10	0.497	5	50	0	50	1	2	0.219
	May 2020	2	5	23	1	1	5	10	0.497	5	50	0	50	1	2	0.895
	November 2020	2	2	24	1	1	5	10	0.295	5	50	0	50	1	2	0.8
	May 2021	2	2	29	1	1	5	10	1.250	5	50	0	50	1	1	0.890
	November 2021	2.500	2.500	28.817	0.500	1.000	5.000	10.000	0.300	5.000	50.000	0.100	50.000	1.025	1.000	0.800
	May 2022	0.700	2.500	28.096	0.500	1.000	2.486	10.000	0.300	5.000	50.000	0.100	50.000	1.462	0.500	0.800
	November 2022	0.700	0.600	28.602	0.500	1.000	2.486	10.000	0.132	5.000	10.000	0.100	50.000	1.331	0.500	0.714
	May 2023	0.500	0.600	28.811	0.325	1.000	2.486	1.800	0.070	5.000	10.000	0.100	50.000	1.495	0.500	0.709
	November 2023	0.500	0.500	26.665	0.325	1.000	2.486	1.800	0.079	5.000	10.000	0.100	50.000	2.511	0.500	0.552
	May 2024	0.500	0.500	23.416	0.325	1.000	2.486	0.500	0.066	5.000	10.000	0.100	5.000	3.166	0.500	0.577
AP-7	September 2018	3	5	46	2	2	5	10	2.5	5	50	0	50	2	2	0.608
	May 2019	3	3	45	2	1	5	10	0.505	5	50	0	50	2	2	0
	November 2019	3	1	46	2	1	5	10	0	5	50	0	50	2	2	0
	May 2020	2	1	47	1	1	5	10	0	5	50	0	50	2	2	0.191
	November 2020	2	1	56	1	1	5	10	0.122	5	50	0	50	2	2	0.124
	May 2021	2	1	54	1	1	5	10	0.122	5	50	0	50	2	1	0.073
	November 2021	2.500	1.653	64.912	0.500	1.000	5.000	10.000	0.125	5.000	50.000	0.100	50.000	2.500	1.000	0.510
	May 2022	0.700	1.134	69.821	0.500	1.000	5.000	10.000	0.000	5.000	50.000	0.100	50.000	0.800	0.500	0.709
	November 2022	0.700	1.134	77.146	0.500	1.000	5.000	10.000	0.000	5.000	50.000	0.100	50.000	0.800	0.500	0.786
	May 2023	0.500	1.239	72.683	0.325	1.000	5.000	1.800	0.000	5.000	10.000	0.100	9.266	0.500	0.500	1.211
	November 2023	0.500	1.594	73.950	0.325	1.000	5.000	1.800	0.000	5.000	10.000	0.100	9.266	0.500	0.500	1.186
	May 2024	0.500	1.750	72.491	0.325	1.000	5.000	0.500	0.115	5.000	10.000	0.100	9.266	0.500	0.500	0.437

Table 1: 95% LCL Compared to GWPS
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station, Petersburg, Indiana
Atlas Project No. 170AES0003

Sample ID	Through Sample Date	Antimony, Total	Arsenic, Total	Barium, Total	Beryllium, Total	Cadmium, Total	Chromium, Total	Cobalt, Total	Fluoride	Lead, Total	Lithium, Total	Mercury, Total	Molybdenum, Total	Selenium, Total	Thallium, Total	Radium 226/228 Combined
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L
	GWPS (greater of MCL/USEPA Amendment Level, or background PL)	**6**	**234**	**2000**	**4**	**5**	**100**	**6**	**4**	**47.8**	**2687.6481**	**2**	**660**	**50**	**2.3**	**5**
	MCL	6	10	2000	4	5	100	-	4	15	-	2	-	50	2	5
	USEPA'S Amendments to the National Minimum Criteria*	-	-	-	-	-	-	6	-	15	40	-	100	-	-	-
	Prediction Limit (based on background data through May 2024)	2.1	234	80.4	0.65	2	10	3.7	0.35	47.8	2687.6481	0.35	660	5.9	2.3	3.6665
AP-8	September 2018	3	5	12	2	**7**	5	**283**	2.5	5	50	0	50	2	2	1.163
	May 2019	3	5	12	2	**5**	5	**247**	0.782	5	40	0	50	2	2	0.798
	November 2019	3	5	12	2	**5**	5	**244**	0.152	5	40	0	50	2	2	0.813
	May 2020	2	6	14	1	**5**	5	**242**	0	5	33	0	50	2	2	0.297
	November 2020	2	6	15	2	**6**	5	**258**	0.325	5	32	0	50	2	2	0.297
	May 2021	2	4	14	0	**6**	5	**205**	0.177	5	33	0	50	2	1	0.508
	November 2021	2.500	4.161	13.983	0.235 1.794 (N=10)	3.804 **5.883 (N=8)**	5.000	**187.414**	0.103	5.000	32.266	0.100	50.000	1.609	1.000	0.451 0.888 (N=8)
	May 2022	0.700	3.984	13.516	1.139	3.462 **6.438 (N=8)**	5.000	**285.805**	0.353	5.000	45.366	0.100	50.000	1.609	0.500	0.785
	November 2022	0.500	3.471	14.417	2.088	3.699 **5.98 (N=8)**	5.000	**357.478**	0.464	5.000	44.459	1.000	5.000	0.000	0.500	0.776
	May 2023	0.500	3.076	15.157	1.96 2.274 (N=8)	**5.536**	5.000	**370.101**	0.314	4.497	47.882	0.100	9.853	1.048	0.500	0.735
	November 2023	0.500	2.707	15.237	1.96 2.878 (N=5)	**5.381**	5.000	**441.240**	0.504	4.497	46.100	0.100	9.853	1.075	0.500	0.635
	May 2024	0.500	3.486	17.891	2.18 2.506 (N=7)	1.778 **6.196 (N=8)**	5.000	**329.931**	0.434	4.497	29.447	0.100	9.853	0.860	0.500	0.826
Deep Zone																
AP-2A	September 2018	3	0	35	2	1	5	10	2.5	5	33	0	**2081**	2	2	1.08
	May 2019	3	0	35	1	1	5	3	0.497	5	41	0	**1984**	2	2	0.768
	November 2019	3	0	36	1	1	5	0	0	5	53	0	**2046**	2	2	0.504
	May 2020	2	0	40	1	1	5	0	0	5	55	0	**2177**	2	2	0
	November 2020	2	4	44	1	1	5	0	0.117	5	79	0	**2231**	2	2	0
	May 2021	2	3	44	1	1	5	3	0.146	5	68	0	**2008**	2	1	0
	November 2021	2.081	2.433	43.404	0.500	1.000	5.000	10.000	0.146	5.000	66.877	0.100	**1716.383**	2.500	1.000	0.975 0.957 (N=8)
	May 2022	2.297	0.000	42.391	0.500	1.000	5.000	10.000	0.000	2.066	59.678	0.100	**1498.37**	0.800	0.500	0.968
	November 2022	2.297	0.000	44.730	0.500	1.000	5.000	10.000	0.000	2.066	56.859	0.100	**1340.418**	0.800	0.500	1.212
	May 2023	2.297	0.000	46.219	0.325	1.000	5.000	10.000	0.000	2.066	53.011	0.100	**1106.518**	0.500	0.500	1.264
	November 2023	2.297	0.000	48.351	0.325	1.000	5.000	10.000	0.000	2.066	59.238	0.100	**804.227**	0.000	0.500	1.454
	May 2024	2.102	0.000	47.111	0.325	0.000	5.000	1.800	0.119	5.000	59.238	0.100	**820.577**	0.195	0.500	1.485

Table 1: 95% LCL Compared to GWPS

Multiunit Ash Pond System

AES Indiana

Petersburg Generating Station, Petersburg, Indiana

Atlas Project No. 170AES0003

Sample ID	Through Sample Date	Antimony, Total	Arsenic, Total	Barium, Total	Beryllium, Total	Cadmium, Total	Chromium, Total	Cobalt, Total	Fluoride	Lead, Total	Lithium, Total	Mercury, Total	Molybdenum, Total	Selenium, Total	Thallium, Total	Radium 226/228 Combined
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L
	GWPS (greater of MCL/USEPA Amendment Level, or background PL)	**6**	**234**	**2000**	**4**	**5**	**100**	**6**	**4**	**47.8**	**2687.6481**	**2**	**660**	**50**	**2.3**	**5**
	MCL	6	10	2000	4	5	100	-	4	15	-	2	-	50	2	5
	USEPA'S Amendments to the National Minimum Criteria*	-	-	-	-	-	-	6	-	15	40	-	100	-	-	-
	Prediction Limit (based on background data through May 2024)	2.1	234	80.4	0.65	2	10	3.7	0.35	47.8	2687.6481	0.35	660	5.9	2.3	3.6665
AP-3A	September 2018	3	5	27	2	1	5	10	2.5	5	50	0	**676**	2	2	0.528
	May 2019	3	2	27	1	1	5	10	2.5	5	50	0	**672**	2	2	0.518
	November 2019	3	1	28	1	1	5	3	2.5	5	50	0	612	2	2	0.770
	May 2020	2	0	35	1	1	5	3	0.522	5	50	0	617	2	2	0.798
	November 2020	2	1	35	1	1	5	3	0	5	50	0	595	2	2	0.834
	May 2021	2	1	35	1	1	5	3	0	5	50	0	575	2	1	0.796
	November 2021	2.500	1.267	33.538	0.500	1.000	5.000	10.000	0.000	5.000	50.000	0.100	501.908 678.165 (N=10)[1]	2.500	1.000	0.942
	May 2022	0.700	1.196	34.431	0.500	1.000	5.000	10.000	0.000	5.000	50.000	0.100	545.729 625.593 (N=9)	2.500	0.500	1.023
	November 2022	0.500	1.116	33.834	0.100	1.000	5.000	0.500	0.032	5.000	10.000	1.000	542.491 599.997 (N=9) 620.283 (N=10)	0.500	0.500	0.783
	May 2023	0.500	1.264	33.563	0.325	1.000	5.000	10.000	0.000	5.000	10.000	0.100	531.762 595.193 (N=10)	0.500	0.500	0.803
	November 2023	0.500	1.239	32.907	0.100	1.000	5.000	0.500	0.057	5.000	10.000	1.000	536.387	0.500	0.500	0.844
	May 2024	0.500	1.312	32.018	0.325	1.000	5.000	1.800	0.076	5.000	10.000	0.100	517.529	0.500	0.500	0.865
AP-4A	September 2018	3	5	24	2	1	5	10	2.5	5	50	0	150	2	2	0.559
	May 2019	3	5	24	1	1	5	10	2.5	5	45	0	173	2	2	0.589
	November 2019	3	5	25	1	1	5	10	2.5	5	42	0	184	2	2	0.713
	May 2020	2	2	29	1	1	5	10	0.514	5	39	0	212	2	2	1.289
	November 2020	2	2	30	1	1	5	10	0	5	39	0	216	2	2	1.28
	May 2021	2	2	30	1	1	5	10	0	5	35	0	209	2	1	0.998
	November 2021	2.500	2.500	30.548	0.500	1.000	5.000	10.000	0.000	5.000	37.445	0.100	214.209	2.500	1.000	1.009
	May 2022	0.700	0.600	27.451	0.500	1.000	5.000	10.000	0.000	5.000	37.945	0.100	188.217	2.500	0.500	0.555
	November 2022	0.700	0.600	27.363	0.500	1.000	5.000	10.000	0.174	5.000	26.406	0.100	185.857	0.500	0.500	0.560
	May 2023	0.500	0.500	26.560	0.325	1.000	5.000	1.800	0.098	5.000	27.243	0.100	185.518	0.500	0.500	0.674
	November 2023	0.500	0.500	26.003	0.325	1.000	5.000	1.800	0.098	5.000	27.534	0.100	188.314	0.500	0.500	0.485
	May 2024	0.500	0.500	26.799	0.325	1.000	5.000	0.500	0.133	5.000	27.049	0.100	211.545	0.500	0.500	0.799

Table 1: 95% LCL Compared to GWPS

Multiunit Ash Pond System

AES Indiana

Petersburg Generating Station, Petersburg, Indiana

Atlas Project No. 170AES0003

Sample ID	Through Sample Date	Antimony, Total	Arsenic, Total	Barium, Total	Beryllium, Total	Cadmium, Total	Chromium, Total	Cobalt, Total	Fluoride	Lead, Total	Lithium, Total	Mercury, Total	Molybdenum, Total	Selenium, Total	Thallium, Total	Radium 226/228 Combined
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L
	GWPS (greater of MCL/USEPA Amendment Level, or background PL)	**6**	**234**	**2000**	**4**	**5**	**100**	**6**	**4**	**47.8**	**2687.6481**	**2**	**660**	**50**	**2.3**	**5**
	MCL	6	10	2000	4	5	100	-	4	15	-	2	-	50	2	5
	USEPA'S Amendments to the National Minimum Criteria*	-	-	-	-	-	-	6	-	15	40	-	100	-	-	-
	Prediction Limit (based on background data through May 2024)	2.1	234	80.4	0.65	2	10	3.7	0.35	47.8	2687.6481	0.35	660	5.9	2.3	3.6665
AP-5A	September 2018	3	5	7	2	1	5	10	2.5	5	50	0	173	2	2	0
	May 2019	3	5	7	2	1	5	10	2.5	5	50	0	173	2	2	0.205
	November 2019	3	2	7	2	1	5	10	2.5	5	50	0	170	2	2	0.521
	May 2020	2	2	20	1	1	5	10	0.497	5	28	0	180	2	2	0.221
	November 2020	2	1	22	1	1	5	10	0.497	5	28	0	174	2	2	0.532
	May 2021	2	1	23	1	1	5	2	0.497	5	28	0	179	2	1	0.357
	November 2021	2.500	1.410	26.416	0.500	1.000	5.000	0.000	0.141	5.000	27.873	0.100	204.756	2.500	1.000	0.390
	May 2022	0.700	1.410	24.641	0.500	1.000	5.000	0.000	0.300	5.000	50	0.100	213.766	2.500	0.500	0.581
	November 2022	0.700	0.907	24.476	0.500	1.000	5.000	0.000	0.250	5.000	50.000	0.100	209.767	0.500	0.500	0.365
	May 2023	0.500	1.327	22.554	0.325	1.000	5.000	2.541	0.250	5.000	50.000	0.100	204.726	0.500	0.500	0.536
	November 2023	0.500	1.327	22.016	0.325	1.000	5.000	10.000	0.250	5.000	10.000	0.100	198.475	0.500	0.500	0.437
	May 2024	0.500	1.327	22.167	0.325	1.000	5.000	1.800	0.250	5.000	10.000	0.100	195.850	0.500	0.500	0.369
AP-6A	September 2018	3	5	22	2	1	5	10	2.5	5	50	0	50	2	2	0
	May 2019	3	5	23	2	1	5	10	2.5	5	50	0	50	2	2	0.045
	November 2019	3	5	24	2	1	5	10	2.5	5	50	0	50	2	2	0.120
	May 2020	2	2	24	1	1	5	10	2.5	5	50	0	50	2	2	0.276
	November 2020	2	2	25	1	1	5	10	2.5	5	50	0	50	2	2	0.590
	May 2021	2	2	25	1	1	5	10	0.3	5	50	0	50	2	1	0.272
	November 2021	2.500	1.913	25.642	0.500	1.000	5.000	10.000	0.300	5.000	50.000	0.100	50.000	2.500	1.000	0.356
	May 2022	0.700	1.913	22.594	0.500	1.000	5.000	10.000	0.250	5.000	50.000	0.100	50.000	0.800	0.500	0.356
	November 2022	0.700	1.886	22.754	0.500	1.000	5.000	10.000	0.250	5.000	50.000	0.100	50.000	0.800	0.500	0.417
	May 2023	0.500	2.332	20.781	0.325	1.000	5.000	1.800	0.250	5.000	10.000	0.100	50.000	0.500	0.500	0.557
	November 2023	0.500	2.332	20.037	0.325	1.000	5.000	1.800	0.250	5.000	10.000	0.100	50.000	0.500	0.500	0.416
	May 2024	0.500	0.000	19.566	0.325	1.000	5.000	0.500	0.050	5.000	10.000	0.100	5.000	0.500	0.500	0.560

Table 1: 95% LCL Compared to GWPS
Multiunit Ash Pond System
AES Indiana
Petersburg Generating Station, Petersburg, Indiana
Atlas Project No. 170AES0003

Sample ID	Through Sample Date	Antimony, Total	Arsenic, Total	Barium, Total	Beryllium, Total	Cadmium, Total	Chromium, Total	Cobalt, Total	Fluoride	Lead, Total	Lithium, Total	Mercury, Total	Molybdenum, Total	Selenium, Total	Thallium, Total	Radium 226/228 Combined
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L
	GWPS (greater of MCL/USEPA Amendment Level, or background PL)	**6**	**234**	**2000**	**4**	**5**	**100**	**6**	**4**	**47.8**	**2687.6481**	**2**	**660**	**50**	**2.3**	**5**
	MCL	6	10	2000	4	5	100	-	4	15	-	2	-	50	2	5
	USEPA'S Amendments to the National Minimum Criteria*	-	-	-	-	-	-	6	-	15	40	-	100	-	-	-
	Prediction Limit (based on background data through May 2024)	2.1	234	80.4	0.65	2	10	3.7	0.35	47.8	2687.6481	0.35	660	5.9	2.3	3.6665

Notes:
GWPS = Groundwater Protection Standard
MCL = Maximum Contaminant Level
LCL = Lower Confidence Limit
Bold font with gray shading indicates 95% LCL of the mean of the last four measurements that is in exceedance of GWPS.
Bold font with green shading indicates 95% LCL of the mean of the last eight measurements (or as otherwise indicated) that is in exceedance of GWPS.
ug/L = micrograms per liter (ppb)
mg/L = milligrams per liter (ppm)
Std. Units = Standard Units
*USEPA'S *Amendments to the National Minimum Criteria (Phase One, Part One), Disposal of Coal Combustion Residuals from Electric Utilities;* effective August 29, 2018 (page 36444).
1 - Exceedance not declared due to trend identified over the corresponding dataset. Datasets containing trends do not display stationality and are not appropriate to utilize for LCL calculations.
Background prediction limits are re-calculated after each sampling event. If a background prediction limit value is utilized as the GWPS, the GWPS for the current summary may be different from previous events.
The 95% LCL statistic is based on the rolling set of the four most recent individual sample results for a parameter.
LCL calculations utilize 1/2 the median non-detect (ND) reporting limit (RL) from the full date range of non-detect sample results. If RL levels changed over time, the current calculated LCL value may be larger than the most recent four ND results.
summary
Reporting units of measure for certain constituents in DUMPStat output tables were changed from units of mg/L (ppm) to ug/L (ppb) beginning with November 2021 LCL analysis to allow for reporting of calculated LCLs to more significant digits.
Historic elevated non-detect reporting limits for cobalt and fluoride were removed from background prediction limit calculations beginning with May 2024 analyses.
Table updated to include May 2024 assessment sampling results.