2022 Semiannual Groundwater Monitoring and Corrective Action Report

PLANT McMANUS

Former Ash Pond 1 (AP-1)

Prepared for:

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February 28, 2023

Georgia Power Company

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CERTIFICATION STATEMENT

This 2022 *Semiannual Groundwater Monitoring and Corrective Action Report, Georgia Power Company - Plant McManus– Former Ash Pond 1 (AP-1)* has been prepared in compliance with the United States Environmental Protection Agency coal combustion residual rule [40 Code of Federal Regulations (CFR) 257 Subpart D] and the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10 by a qualified groundwater scientist or engineer with Resolute Environmental & Water Resources Consulting, LLC (Resolute). I hereby certify that I am a qualified groundwater scientist, in accordance with the Georgia Rules of Solid Waste Management, and 40 CFR Part 258.50(g).

RESOLUTE ENVIRONMENTAL & WATER RESOURCES CONSULTING, LLC

Signature: 

Morris L. Maslia, P.E.

Date: February, 28 2023

SUMMARY

This summary of the 2022 Semiannual Groundwater Monitoring and Corrective Action Report provides the status of groundwater monitoring and corrective action program from July 2022 through December 2022 (the semiannual reporting period) at Georgia Power Company's (Georgia Power's) Former Ash Pond (AP) AP-1 at Plant McManus (the Site). This summary was prepared by Resolute Environmental and Water Resources Consulting, LLC. (Resolute) on behalf of Georgia Power to meet the requirements listed in Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste 391-3-4-.10, and by reference, Part A, Section 6[1] of the U.S. Environmental Protection Agency (USEPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D).

Plant McManus is located at 1 Crispen Island Drive in Glynn County, Georgia, approximately 5.37 miles northwest of the city of Brunswick. The plant property is bordered by the Turtle River to the west and by Burnett Creek to the north. The former AP-1 is located on the northeastern portion of the plant property. The former AP-1 was an approximately 80-acre ash pond that was built in the late 1950's. Ash sluicing operations at AP-1 commenced in 1959 and ceased in 1972. Closure of AP-1 commenced in 2016. As part of closure, AP-1 was dewatered sufficiently to remove the free liquids, and ash was removed and disposed of in an offsite permitted landfill. A certification of removal report demonstrating completion of removal activities was submitted to the Georgia Environmental Protection Division (GA EPD) on November 27, 2019. Based on review of the report and an inspection of AP-1 on December 13, 2019, GA EPD acknowledged the completion of CCR removal on January 10, 2020. The final CCR Permit for the Plant McManus Ash Pond was issued by GA EPD Friday June 18th, 2021 (063-030D (CCR)).

Former Ash Pond (AP-1) and the Site.

Groundwater at the Site is monitored using a comprehensive monitoring network that meets federal and state monitoring requirements. Routine sampling and reporting began after the background groundwater conditions were established between August 2016 and May 2018. Based on groundwater conditions at the Site, an assessment monitoring program and assessment of corrective measures were established in August 2019 and July 2020, respectively. An *Assessment of Corrective Measures Report* was subsequently prepared for the former AP-1 (Arcadis, 2020b) and submitted to GA EPD in December 2020. During the semiannual reporting period, the Site remained in assessment monitoring as corrective measures were evaluated.

[1] 80 CFR 21468, Apr. 17, 2015, as amended at 81 CFR 51807, Aug. 5, 2016; 83 CFR 36452, July 30, 2018; 85 FR 53561, Aug. 28, 2020

During the semiannual reporting period, Resolute conducted the semiannual groundwater and surface water sampling events in September 2022. Samples were submitted to either Pace Analytical (Pace) or Eurofins Environmental Testing (Eurofins) for analysis. Per the CCR rule, groundwater results were evaluated in accordance with the certified statistical methods. That evaluation showed statistically significant values of Appendix III[2] and Appendix IV[3] parameters in wells provided in the table below.

Appendix III Parameter	**September 2022**
Boron	MCM-17
Calcium	MCM-07
pH	MCM-05, MCM-06, MCM-07, MCM-12, MCM-14, and MCM-17
Appendix IV Parameter[4]	**September 2022**
Arsenic	MCM-06
Lithium	MCM-06 and DPZ-02

Based on review of the Appendix III and Appendix IV statistical results, the Site will continue in assessment monitoring. Alternate source demonstrations (ASD) were submitted for lithium at wells MCM-06 and DPZ-02 on November 17, 2020 and April 29, 2022, respectively. Conditional concurrence was provided by GA EPD for MCM-06 and DPZ-02 on April 22, 2021, and June 17, 2022, respectively. Georgia Power will continue routine groundwater monitoring, reporting, and groundwater remedy evaluation at the Site. Reports will be posted to the website and provided to GA EPD semiannually.

[2] Boron, calcium, chloride, fluoride, pH, sulfate, and total dissolved solids (TDS)

[3] Antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, fluoride, lead, lithium, mercury, molybdenum, selenium, thallium, and radium 226 + 228

[4] A SSL-related constituent is determined by comparing the confidence intervals developed to either the constituent's MCL, if available, the CCR rule specified level (RSL), if no MCL is available, or the calculated background interwell tolerance limit.

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1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (USEPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D; published in 80 FR 21302-21501, April 17, 2015) and the Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste Management 391-3-4-.10, this *2022 Semiannual Groundwater Monitoring and Corrective Action Report* has been prepared to document groundwater monitoring activities conducted at Georgia Power Company's (Georgia Power's) Plant McManus Former Ash Pond AP-1 (the Site) and satisfy the requirements of § 257.90(e). To specify groundwater monitoring requirements, Georgia EPD rule 391-3-4-.10(6)(a) incorporates by reference the USEPA CCR rule (40 Code of Federal Regulations [CFR] 257 Subpart D; published in 80 FR 21302-21501, April 17, 2015). For ease of reference, the USEPA CCR rules are cited within this report.

Groundwater monitoring and reporting for the former AP-1 is performed in accordance with the monitoring requirements of 40 CFR 257.90 through 257.95 of the USEPA CCR rule, and Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6).

The former AP-1 ceased receiving waste prior to the effective date of the USEPA CCR rule promulgated in April 2015. A notification of intent to initiate closure of the former CCR ash pond was certified on December 7, 2015, and posted to Georgia Power's website. Therefore, groundwater monitoring and reporting for the former AP-1 are being completed in accordance with the alternate schedule in § 257.100(e)(5) of the revised USEPA CCR rule (August 5, 2016).

This report documents semiannual monitoring activities completed from July 2022 through December 2022 (the reporting period) and includes the required report components in accordance with 40 CFR 257.90(e).

1.1 SITE LOCATION AND DESCRIPTION

The Site is located at 1 Crispen Island Drive in Glynn County, Georgia, approximately 5.37 miles northwest of the city of Brunswick. The plant property is bordered by the Turtle River to the west and by Burnett Creek to the north. The former AP-1 is located on the northeastern portion of the plant property (Figure 1).

The former AP-1 was an approximately 80-acre ash pond that was built in the late 1950's. Ash sluicing operations at AP-1 commenced in 1959 and ceased in 1972. Closure of AP-1 commenced in 2016. As part of closure, AP-1 was dewatered sufficiently to remove the free liquids, and ash was removed and disposed of in an offsite, permitted landfill. A certification of removal report demonstrating completion of removal activities was submitted to GA EPD on November 27, 2019. Based on review of the report and an inspection of AP-1 on December 13, 2019, GA EPD acknowledged the completion of CCR removal on January 10, 2020. The final CCR Permit (No. 063-030D(CCR)) for the Plant McManus Ash Pond was issued by GA EPD on June 18, 2021.

1.1.1 Regional Geology

The aquifer systems in Brunswick, Glynn County, GA are: (1) the surficial aquifer, (2) the Brunswick aquifer (Upper and Lower) and (3) the Floridan aquifer system (Upper and Lower). The Floridian aquifer system can extend to depths beyond 2,000 feet or more (Clark et al. 1990, Maslia and Prowell,1990; Jones et.al 2002). The uppermost regional aquifer is the surficial aquifer. In the Brunswick area, this aquifer extends to a depth of approximately 180 feet. Although the surficial aquifer is defined on a regional scale as extending to approximately 180 feet below ground surface, Clarke et al. (1990) acknowledge that localized lower permeability units can create confined or semi-confined conditions within limited areas of the surficial aquifer (ATC Associates Inc., 1997).

Regionally, the surficial aquifer is composed of geologic formations overlying the Hawthorn Formation. These formations include the Satilla, Charlton, and Raysor Formations, as well as undifferentiated Holocene, Pleistocene, Pliocene and late-Miocene deposits. In the Brunswick area, the Satilla is described as extending to approximately 28 feet below ground surface and the Cypresshead to approximately 50 feet below ground surface. Underlying the Satilla and Cypresshead Formations are sands, gravels, and clays which have been described by Weems and Edwards (2001) as two pairs of alternating confining units and water-bearing zones of the Ebenezer Formation. These alternating units of the Ebenezer Formation are described as an uppermost confining unit extending from approximately 50 to 75 feet below ground surface, followed by a water-bearing zone from approximately 75 to 110 feet below ground surface, another confining unit from approximately 110 to 150 feet below ground surface, and then another water-bearing zone from approximately 150 to 185 feet below ground surface. Depositionally, these sediments represent marginal to shallow marine beds, that are overlain by marine terrace deposits. Fluvial or residual deposits overlay the terrace deposits (Miller, 1986; Clarke et al, 1990).

The regional surficial aquifer is underlain by approximately 90 feet of lower-permeability portions (Miocene Unit A) of the Hawthorn Formation. This stratum forms the upper confining bed for the Brunswick aquifer system. The Brunswick aquifer system is composed of two confined aquifers (the Upper Brunswick aquifer and the Lower Brunswick aquifer) which are separated and confined above and below by less permeable units of the Hawthorn Formation. The Upper Brunswick aquifer extends from approximately 270 feet to 350 feet below ground surface, and the Lower Brunswick aquifer extends from approximately 400 feet to 470 feet below ground surface (Clarke *et al*, 1990).

1.1.2 Site Geology and Hydrogeology

Based on information collected during subsurface investigations, Plant McManus is underlain by very fine sands and clays from land surface (or beneath a shallow fill layer) to depths ranging from 33 to 43 feet below land surface. Very fine sands are predominant, but discontinuous clay layers of varying thickness were encountered during drilling activities. The clay layers varied from less than one inch to approximately ten feet in thickness. These very fine sands and discontinuous clay layers are interpreted to be the Upper Satilla Formation (ATC Associates, Inc., 1997).

Underlying the Upper Satilla Formation are fine to medium sands with greater silt content, and apparently lower permeability, than the sands of the Upper Satilla. These siltier sands, which were interpreted to be the Lower Satilla Formation, were encountered at depths greater than 35 feet below ground surface during the Site investigation performed in the 1990s (ATC Associates Inc., 1997). These sands may also correspond to the Cypresshead Formation of Huddleston (1988). Sands and clays below the Cypresshead and above the confining unit of the Brunswick aquifer system have been described by Weems and Edwards (2001) as two pairs of alternating confining units and water-bearing zones of the Ebenezer Formation, extending from approximately 50 to 185 feet below ground surface in the Brunswick area.

The regional surficial aquifer that contains the Upper and Lower Satilla Formations is underlain by approximately 90 feet of lower-permeability portions (Miocene Unit A) of the Hawthorn Formation. This stratum forms the upper confining bed for the Brunswick aquifer system.

The surficial aquifer underlying the mainland, marsh, and island is composed of the very fine to fine grain sand with discontinuous clay layers of the Upper and Lower Satilla Formation. In the marsh, the groundwater elevation at low tide is below the top of the marsh surface. The upper portion of the aquifer in the marsh has been cut by tidal creeks, which meander through the marsh. In addition to current and historically recent (pre-ash pond construction) tidal channels, the marsh is also likely to have paleo (pre-historic) tidal channels present throughout the upper portion of the aquifer in the marsh area, which may provide zones of higher hydraulic conductivity or isolated pockets of groundwater. Vertically, the Satilla formation fines downward to a silty fine sand of the Lower Satilla Formation. The aquifer is generally unconfined, with localized clay layers. Groundwater flowing within the surficial aquifer is separated from deeper aquifers by approximately 90 feet of lower-permeability portions of the Hawthorn Formation (Miocene Unit A) that form the upper confining bed for the Brunswick aquifer system (Clarke et al, 1990).

Groundwater flows from two directions toward the former AP-1. One groundwater flow component originates on the mainland, northeast of the facility, and flows southwest, while the other flow component originates on Crispen Island and flows north and northeast (Figures 2 and 3). Groundwater elevations in the monitoring wells on the mainland (MCM-02, -15, and -16) and on the island (MCM-08, and -11) have consistently exhibited higher groundwater elevations than the monitoring wells and piezometers installed along the dikes (Table 1), with MCM-01 and -04 exhibiting intermediate elevations between the mainland and dike wells. The potentiometric surface of the surficial aquifer and the resultant groundwater flow direction in the vicinity of the former AP-1 is a reflection of the topography of the mainland, Crispen Island, and the tidal marsh surrounding the area.

1.2 GROUNDWATER MONITORING SYSTEM

Pursuant to § 257.91, Georgia Power installed a groundwater monitoring system within the uppermost aquifer around former AP-1. The monitoring system is designed to monitor groundwater passing the waste boundary of the former AP-1 within the uppermost aquifer. As part of the assessment monitoring program, DPZ-02, an assessment monitoring well, was added to the program during the 2020 semiannual monitoring program to vertically characterize the nature and extent of groundwater downgradient of former AP-1. Pursuant to § 257.195(g)(1)(iv), the well classified as "assessment well" (formerly known as "delineation well") will continue to be sampled concurrently with the detection monitoring well network (formerly known as "compliance monitoring wells") as part of the ongoing assessment groundwater monitoring program.

An on-site network of piezometers is used to gauge water levels to define groundwater flow direction and gradients. The piezometers may be sampled as needed to support the Assessment of Corrective Measures (ACM) program.

The location of the detection monitoring wells, assessment wells, and piezometers are shown on Tables 2 and 3 and Figures 4 and 5.

2.0 GROUNDWATER AND SURFACE WATER MONITORING ACTIVITIES

As required by § 257.90(e), the following describes monitoring-related activities performed during the reporting period and discusses any change in status of the monitoring program.

2.1 WELL INSTALLATION, MAINTENANCE, AND ABANDONMENTS

In May 2022, six piezometers (DR-01, DR-02, PT-01, PT-02, PT-03, PT-04D) were installed and developed in the vicinity of MCM-06 to aid in the ACM evaluation at MCM-06. Additional details are presented in the Draft Remedy Selection Report by Arcadis U.S., Inc. (Arcadis), submitted to EPD under a separate cover on February 28, 2023. Piezometer locations are shown on Figures 5, and construction details are included in Table 3. A well installation report that includes detailed boring and well construction logs is provided in Appendix A.

Monitoring wells are inspected semiannually to determine if any repairs or corrective actions are necessary to meet the requirements of the Georgia Water Well Standards Act (O.C.G.A. § 12-5-134(5)(d)(vii)). In September 2022, monitoring wells were inspected, necessary corrective actions were identified and subsequently completed, as documented in Appendix A. In summary, monitoring activities for this reporting period included:

- Visual inspection of well conditions prior to sampling, recording Site conditions, and performing exterior maintenance to perform sampling under safe and clean conditions; and,
- Re-development of existing wells: MCM-06, and DPZ-02.

- Well Pad and Vault Maintenance of MW-04, PT-03 and DR-01.
- Installation of LevelTroll 500 transducer in MCM-10 and replacement of AquaTroll 200 transducers in MCM-17, MCM-19, and MCM-20 on September 27, 2022.
- Installation of AquaTroll 200 transducers in piezometers PT-01, PT-02, PT-03, and PT-04D.

The well maintenance and repair documentation from July 2022 through December 2022 are presented in Appendix A.

2.2 ASSESSMENT MONITORING

Based on results of the August 2019 *Annual Groundwater and Corrective Action Monitoring Report*, assessment monitoring was initiated at the Site. Currently identified SSLs of Appendix IV constituents exceeding their respective GWPS at former AP-1 are arsenic in MCM-06 and lithium in MCM-06 and DPZ-02.

An alternate source demonstration (ASD) was prepared and submitted to GA EPD for lithium at wells MCM-06 and DPZ-02 on November 17, 2020, and April 29, 2022, respectively. Conditional concurrence was provided by GA EPD for MCM-06 and DPZ-02 on April 22, 2021, and June 17, 2022, respectively. Additional details of these ASDs are presented in Section 5.

Pursuant to § 257.96, an Assessment of Corrective Measures Report (ACM) was initiated for the former AP-1 in July 9, 2020. An *Assessment of Corrective Measures Report* (ACM Report) was subsequently prepared for the former AP-1 (Arcadis, 2020b) and submitted to GA EPD in December 2020 and posted to the CCR compliance website in January 2021. In accordance with § 257.96(b), groundwater continues to be monitored at the former AP-1 under the assessment monitoring program while the ACM phase is implemented.

Pursuant to § 257.95(b), the monitoring wells of the certified compliance monitoring network were sampled for the complete list of Appendix III and Appendix IV parameters (Table 4) in the monitoring event conducted in September 2022. Details of these events and analytical results are discussed in Section 3, with the field sampling and calibration reports and laboratory analytical reports presented in Appendix B. The statistical results are discussed in Section 4.

2.3 ADDITIONAL SAMPLING

2.3.1 ACM Sampling

To provide additional information for the ACM, the six newly installed piezometers (PT-01, PT-02, PT-03, PT-04D, DR-01, and DR-02) and nearby wells (MCM-06 and DPZ-02) were sampled in June and September 2022. Refer to Figure 6 and 7. Results for the new piezometers are provided in the Draft Remedy Selection Report submitted under a separate cover by Arcadis on February 28, 2023. Results for MCM-06 and DPZ-02 are provided in Table 5a and 5b.

Groundwater collected during the supplemental June 2022 sampling and September 2022 monitoring event were analyzed for additional geochemical parameters (magnesium, potassium, sodium, sulfide, alkalinity, and iron). The data were collected in support of evaluating the geochemical composition of the groundwater and surface water in conjunction with the ACM and ASD activities.

The laboratory reports associated with the data described above are provided in Appendix B.

2.3.2 Surface Water Sampling

To assess horizontal delineation of arsenic, Georgia Power has proactively completed additional sampling to assess concentrations of arsenic in surface water in the tidal salt marsh since February 2020. Georgia Power collects surface water samples along four transects (T1 through T4) in the tidal marsh adjacent to wells MCM-07, MCM-06, MCM-05, and MCM-14, respectively (Figure 8 and 9). Background surface water samples are collected at a low tide background location, BG-1LT, in Cowpen Creek, north of its confluence with Burnett Creek, and at high tide background location, BG-2HT, located in the Turtle River, north of its confluence with Gibson Creek. Surface water samples are collected in accordance with USEPA Region 4 Science and Ecosystem Support Division (SESD), Operating Procedure, Surface Water Sampling SESDPROC-201-R4 (December 16, 2016).

<u>September and December 2022 Sampling</u>

In September 2022, surface water samples were collected during high tide (HT, HTS, HS, HB) from each point along transects T2 and T4 and from the outmost creek locations in transects T1 and T3. Low tide surface water samples (L, LT) were collected from each transect at the fourth location (i.e., T1-4, T2-4, T3-4, T4-4). In December 2022, surface water samples were collected during high tide from the interior points along transects T1 and T3 which included locations T1-1, T1-2, T1-3, T3-1, T3-2 and T3-3.

<u>June 2022 Sampling</u>

Although the June 2022 event was performed outside of this reporting period, the analytical data was not complete enough to provide analysis and discussion in the prior report. Therefore, the event is presented here, as mentioned in the 2022 Annual Groundwater Monitoring and Corrective Action Report.

In June 2022, samples were collected during high tide (HT, HTS, HS, HB) at each transect at the fourth location (i.e., T1-4, T2-4, T3-4, T4-4) with additional samples being collected at the transects 2 and 4 at the first, second, and third locations. An additional high tide background sample was collected at background location 1 (BG-1HT).

Surface water collected during the June 2022 and September 2022 sampling were analyzed for arsenic, Appendix III parameters, and additional geochemical parameters (magnesium, potassium, sodium, sulfate, alkalinity). The laboratory reports associated with the surface water sampling events are provided in Appendix C and a summary of the results are presented in Table

6. Surface water data from this reporting period are consistent with historical results. Georgia Power will continue collecting the surface water samples semiannually to support assessment of corrective measures.

3.0 SAMPLE METHODOLOGY & ANALYSES

The following sections describe the methods used to conduct groundwater and surface water monitoring, as well as the sampling results that were obtained from sampling events at the former AP-1 during the reporting period.

3.1 GROUNDWATER ELEVATION MEASUREMENT

Prior to each sampling event, groundwater levels were recorded from piezometers and wells in the network at the former AP-1. Groundwater measurements were taken from transducers installed in 13 wells (MCM-01, -02, -04 through -07, -11, -12, -14 through -16 and -18, and DPZ-02) and 8 piezometers (MCM-03, -08, -13, DPZ-01, and DPZ-03 through -06). When other wells and piezometers in the network are utilized for potentiometric surface maps, they were gauged by hand using a Heron water level indicator. Groundwater elevations calculated during the September 2022 monitoring events are summarized in Table 1. Groundwater elevation data was used to develop a high tide and low tide potentiometric surface elevation contour map for each event (Figures 2 and 3). Groundwater flow at the Site is discussed in Section 1.1.

3.2 GROUNDWATER GRADIENT AND HORIZONTAL FLOW VELOCITY

The horizontal groundwater flow velocity at the former AP-1 was calculated using a derivation of Darcy's Law. Specifically,

$$V = \frac{K * i}{\eta_e}$$

Where:

$V =$ Groundwater flow velocity $\left(\frac{feet}{day}\right)$

$K =$ Average Hydraulic Conductivity $\left(\frac{feet}{day}\right)$

$i =$ Horizontal hydraulic gradient $\left(\frac{feet}{feet}\right)$

$\eta_e =$ Effective porosity

Horizontal groundwater flow velocities were calculated for two well pairs at high and low tide using groundwater elevations collected from transducer measurements on September 21, 2022 and September 22, 2022. Groundwater flow velocities representing groundwater flowing from the mainland to former AP-1 (between MCM-16 and MCM-02) and from the island to former AP-1 (between MCM-11 and MCM-12) are presented in (Table 7).

Groundwater flow between MCM-16 and MCM-02 was 0.0064 feet per day (ft/day) at low tide and 0.0090 ft/ day at high tide in September 2022, while groundwater flow for MCM-11 and MCM-12 was 0.0309 ft/ day at low tide and 0.0360 ft/day at high tide. The groundwater direction during both high and low tide was from former AP-1 to the marsh. Average groundwater flow velocities were 0.0023 ft/day or 8.21 feet per year (ft/year) at high tide and 0.019 ft/day or 6.82 ft/yr at low tide in September 2022.

3.3 GROUNDWATER SAMPLING

Groundwater samples were collected from the compliance well network and select piezometers using low-flow sampling procedures in accordance with § 257.93(a). Purging and sampling was performed using a peristaltic pump with the intake tubing lowered to the midpoint of the well screen (or as appropriate determined by the water level). QED dedicated pumps are utilized in monitoring wells MCM-01, MCM-05, MCM-06, MCM-07, MCM-12, MCM-14, MCM-15, MCM-16, and MCM-17. Non-disposable equipment was decontaminated before use and between well locations.

An AquaTroll 400 (In-Situ field instrument) was used to monitor and record field water quality parameters (pH, conductivity, dissolved oxygen (DO), temperature, and oxidation reduction potential [ORP]) during well purging to verify stabilization prior to sampling. Turbidity was monitored using a LaMotte 2020we (or similar) 1970-USEPA and ISO Compliant Model turbidity meter.

Groundwater samples were collected when the following stabilization criteria were met:

- ± 0.1 standard units for pH
- ± 5% for specific conductance
- ± 0.2 milligrams per liter (mg/L) or ± 10%, whichever is greater for DO > 0.5 mg/L. No criterion applies if DO < 0.5 mg/L, record only
- Turbidity measurements less than or equal to 5 nephelometric turbidity units (NTU) or measurements between 5 to 10 NTUs following three hours of purging.

Once stabilization was achieved, unfiltered samples were collected in appropriately preserved laboratory-supplied containers, placed in ice-packed coolers. No filtered samples were collected during this reporting period.

Upon completion of the sampling events, samples were submitted to Pace Analytical in June 2022 and Eurofins in September and December 2022 following chain-of-custody protocol. The field sampling forms generated during the assessment monitoring events conducted during this reporting period are included in Appendix B.

3.4 LABORATORY ANALYSES

Laboratory analysis was performed by Pace Analytical or Eurofins, which are accredited by National Environmental Laboratory Accreditation Program (NELAP) and maintains a NELAP certification for all Appendix III and Appendix IV constituents analyzed for this project.

The groundwater analytical results from the June 2022 supplemental sampling event and the September 2022 semiannual assessment monitoring event are summarized in Table 5a and 5b, and the laboratory analytical reports are provided in Appendix B. The surface water results for the June 2022 and September 2022 events are summarized in Table 6, and the laboratory analytical reports are provided in Appendix C. The pH field measurements recorded during the groundwater sampling events are also provided in Table 5a.

3.5 QUALITY ASSURANCE AND QUALITY CONTROL

During each sampling event, quality assurance/quality control samples (QA/QC) were collected. QA/QC samples included field blanks (FB taken daily, field equipment rinsate blanks (EB) taken when nondedicated sampling equipment was utilized, and one duplicate (DUP) sample taken per every 10 samples. QA/QC sample data were evaluated during groundwater data validation (as described below) and are included in Appendix B.

Groundwater quality data for the assessment events were independently validated by Environmental Standards in accordance with USEPA guidance (USEPA, 2011) and the analytical methods. Data validation generally consisted of reviewing sample integrity, holding times, laboratory method blanks, laboratory control samples, matrix spikes/matrix spike duplicate recoveries and relative percent differences (RPDs), post digestion spikes, laboratory and field duplicate RPDs, field and equipment blanks, and reporting limits. Where appropriate, validation qualifiers and flags are applied to the data using USEPA procedures as guidance (USEPA, 2017). Based on the data validation, the data collected during September 2022 are acceptable for meeting project objectives, and the results are considered valid. The associated data validation results are provided in Appendix B with the laboratory reports.

4.0 STATISTICAL ANALYSIS

Statistical analysis of the reporting period groundwater monitoring data was performed by Groundwater Stats Consulting, LLC (GSC), following the appropriate certified statistical methodology for the Site. The reports generated from the statistical analyses are provided in Appendix D (GSC, 2022). A summary of methods and results are provided in the following sections.

4.1 METHODS

The statistical method used at the Site was developed by GSC using methodology presented in Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance, March 2009, US

EPA 530/ R-09-007 (US EPA, 2009). To develop the statistical methods, analytical data collected during the background period were evaluated and used to develop statistical limits for each Appendix III and IV parameter. Sanitas groundwater statistical software was used to screen the data and perform the statistical analyses. Sanitas is a decision support software package that incorporates the statistical tests required of Subtitle C and D facilities by US EPA regulations.

Appendix III statistical analysis was performed to determine if Appendix III constituents have returned to background levels. Appendix IV constituents were evaluated to determine if concentrations statistically exceeded the established GWPS. Detailed statistical methods used for Appendix III and Appendix IV constituents are discussed in statistical analysis package provided in Appendix D and summarized in Sections 4.1.1 and 4.1.2.

4.1.1 Appendix III Constituents

The statistical test used to evaluate the groundwater monitoring data was the interwell prediction limit (PL) method for Appendix III constituents (boron, calcium, chloride, fluoride, pH, sulfate, and total dissolved solids [TDS]) combined with the option of a 1-of-2 verification resampling strategy. Interwell prediction limits, constructed from all available pooled upgradient well data were used to evaluate the most recent compliance sample from each downgradient well reported during the September 2022 sample event.

If data from a sampling event initially exceed the PL, the resampling strategy may be used to verify the result. In 1-of-2 resampling, one independent resample may be collected and evaluated within 90 days to determine whether the initial exceedance is verified. If the resample exceeds the PL, the initial exceedance is verified, and an SSL is determined. When the resample result does not verify the initial result, there is no SSL. If resampling is not performed, the initial exceedance is a confirmed exceedance.

4.1.2 Appendix IV Constituents

Background limits were used when determining the Appendix IV GWPS under USEPA rule 40 CFR § 257.95(h) and GA EPD CCR Rule 391-3-4-.10(6)(a). Parametric tolerance limits were used to calculate background limits from pooled upgradient well data when data followed a normal or transformed-normal distribution for Appendix IV parameters with a target of 95% confidence and 95% coverage. When data contained greater than 50% non-detects or when the data distribution did not follow a normal or transformed-normal distribution, a nonparametric tolerance limit was used. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples.

USEPA revised the federal CCR Rule on July 30, 2018, updating GWPS for cobalt, lead, lithium, and molybdenum. As described in 40 CFR § 257.95(h)(1-3), the GWPS is defined by the below criteria. These criteria were adopted into the GA EPD Rules for Solid Waste Management 391-3-4-.10 on February 22, 2022.

(1) The maximum contaminant level (MCL) established under 40 CFR §141.62 and 141.66.
(2) Where an MCL has not been established:
    (i) Cobalt 0.006 mg/L;
    (ii) Lead 0.015 mg/L;
    (iii) Lithium 0.040 mg/L; and
    (iv) Molybdenum 0.100 mg/L.
(3) Background levels for constituents where the background level is higher than the MCL or rule-specified GWPS.

Following the above rule requirements, GWPS were established for statistical comparison of Appendix IV constituents and are presented in Table 8.

4.2 STATISTICAL ANALYSES RESULTS

Based on review of the full Appendix III statistical analysis discussion presented in Appendix D, groundwater conditions have not returned to background and assessment monitoring should continue. Review of the Sanitas results indicates that using the GWPS established according to both 40 CFR §257.95(h) and 391-3-4-.10(6)(a), the following SSLs were identified during the current reporting period:

<u>September 2022 Assessment Monitoring Event</u>
AP-1 (Federal and GA EPD CCR Rule):

- Arsenic: MCM-06
- Lithium: MCM-06 and DPZ-02

An ASD was prepared and submitted to GA EPD for lithium at wells MCM-06 and DPZ-02 on November 17, 2020, and April 29, 2022, respectively. Conditional concurrence was provided by GA EPD for MCM-06 and DPZ-02 on April 22, 2021, and June 17, 2022, respectively.

Based on EPD guidance, groundwater trends at wells with SSLs were further evaluated by Groundwater Stats Consulting (GSC) using the Sen's Slope/Mann Kendall trend tests. The full report generated from the analyses is provided in Appendix D. No statistically significant trends were identified when the September 2022 data were analyzed. Trends will continue to be evaluated as data is collected in future monitoring events.

5.0 NATURE AND EXTENT

The SSL identified for arsenic at MCM-06 is vertically delineated to below the GWPS by assessment well DPZ-02.

As described in Section 2.3.1, to assess horizontal delineation of arsenic, Georgia Power proactively collected surface water samples from along four transects in the tidal marsh adjacent to wells MCM-05, MCM-06, MCM-07, and MCM-14 of former AP-1. Arsenic was not detected

above the Georgia instream water quality standard for dissolved arsenic for marine estuary environments (0.036 mg/L) and laboratory reporting limits of 0.015 to 0.050 mg/L (depending on sample date and location, with the higher detection limits due to high ionic strength surface water) in surface water samples collected to date (Table 6); therefore, no impacts to surface water have been detected and horizontal delineation is complete.

5.1 ALTERNATE SOURCE DEMONSTRATION

Pursuant to regulations in § 257.95(g)(3)(ii), Arcadis U.S., Inc. (Arcadis) prepared an ASD for the SSLs of lithium reported for wells MCM-06 (Arcadis, 2020a) and DPZ-02 (Arcadis, 2022). The ASDs present multiple lines of evidence that indicate that the lithium observed at former AP-1 is due to a natural source – i.e., the influx of brackish surface water. Lithium is a naturally occurring element in seawater and is present in the brackish water that is a mix of seawater and freshwater surrounding the site. GA EPD approved the ASD for lithium at monitoring well MCM-06 on April 22, 2021, and DPZ-02 on June 17, 2022. The approval was conditional on the ASD for MCM-06 being updated after 2-years with additional monitoring data and for DPZ-02 being continually supported with future monitoring data.

6.0 MONITORING PROGRAM STATUS

6.1 ASSESSMENT MONITORING STATUS

Pursuant to 40 CFR 257.96(b), Georgia Power will continue to monitor the groundwater at the former AP-1 in accordance with the assessment monitoring program regulations of 40 CFR 257.95 as corrective measures to address arsenic in MCM-06 are evaluated. Pursuant to § 257. 95(g)(1)(iv), the assessment wells will continue to be sampled as part of the ongoing semiannual assessment groundwater monitoring program.

6.2 ASSESSMENT OF CORRECTIVE MEASURES

During the 2022 semiannual reporting period, a *Draft Remedy Selection Report* was prepared by Arcadis in lieu of the Semiannual Remedy Selection and Design Progress Reports previously included in the appendix of this semiannual groundwater monitoring and corrective action report. The Draft Remedy Selection Report was submitted under separate cover on February 28, 2023. The report summarizes:

(i) the current conceptual site model applicable to evaluating groundwater corrective measures proposed in the ACM Report (Arcadis, 2020b);
(ii) an evaluation of each corrective measure retained for further consideration following the completed investigations; and,
(iii) an evaluation of corrective measure options using the comparative criteria such as long-term and short-term effectiveness and protectiveness, source control effectiveness, and ease of implementation.

6.3 ANNUAL POTABLE WELL SURVEY

As requested by EPD, a survey of water wells was conducted within a two-mile radius from the site. The survey incorporated records from federal, state, and county sources cited in the previous well survey; however, no information (e.g., septic tank permit records) was received from the Glynn County Health Department (NewFields, 2020). A current Environmental Data Resources (EDR) GeoCheck® Report is included in Appendix E. The findings with the available data are consistent with the 2021 well survey (Arcadis, 2022).

7.0 CONCLUSIONS & FUTURE ACTIONS

This *2022 Semiannual Groundwater Monitoring and Corrective Action Report for Georgia Power's Plant McManus Former Ash Pond 1 (AP-1)* was prepared to fulfill the requirements of USEPA's CCR Rule and GA EPD rule 391-3-4-.10(6)(c). Statistical evaluations of the groundwater monitoring data from the September 2022 event at the former AP-1 identified the continued presence of a SSLs of arsenic and lithium in monitoring well MCM-06 and lithium in assessment well DPZ-02. The lithium SSL in MCM-06 has been addressed with an ASD conditionally approved on April 22, 2021. An ASD for the SSL of lithium above the GWPS identified at DPZ-02 was submitted and conditionally approved on June 17, 2022. The arsenic SSL in MCM-06 is vertically delineated below the GWPS by DPZ-02. Based on the surface water data collected to date, the arsenic SSL in MCM-06 does not appear in adjacent surface water. Surface water data will be collected semiannually and reported in semiannual and annual groundwater monitoring reports.

Georgia Power will continue to monitor groundwater in the vicinity of former AP-1 under the current assessment monitoring program and adaptively manage the Site as new data become available. A *Draft Remedy Selection Report*, which summarizes the evaluation and proposed selection of a corrective measure, or measures, was submitted to GA EPD on February 28, 2023, under separate cover. The next routine semiannual assessment monitoring event for former AP-1 is scheduled for March 2023. Progress made regarding the remedy selection will be documented in the next groundwater monitoring and corrective action report.

8.0 REFERENCES

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TABLES

Table 1
Summary of Groundwater Elevations
Plant McManus
Former AP-1
Brunswick, Georgia

	Collection Date				September 21, 2022	September 22, 2022
	High Tide				6:44	
	Low Tide					13:00
	Start Collection				6:53	12:52
	Stop Collection				8:30	14:10
Well ID	**Top of Casing Elevation (ft NAVD 88)**	**Top of Casing Elevation (April 16, 2020) [ft NAVD 88]**	**Difference Between Elevations (ft NAVD 88)**	**Well Bottom Elevation (ft NAVD 88)**	**High Tide GW Elevation (ft NAVD 88)[1]**	**Low Tide GW Elevation (ft NAVD 88)[1]**
MCM-01	8.76	8.63	-0.13	-18.56	6.10	5.84
MCM-02	10.58	11.25	0.67	-16.77	8.50	8.42
MCM-03	10.00	9.97	-0.03	-17.70	5.29	5.16
MCM-04	12.47	12.39	-0.08	-16.10	5.08	4.49
MCM-05	10.09	10.04	-0.05	-17.96	5.46	4.19
MCM-06	10.17	10.15	-0.02	-17.03	4.06	2.57
MCM-07	10.22	10.20	-0.02	-13.53	3.88	3.26
MCM-08	9.41	9.42	0.01	-18.88	3.50	3.43
MCM-10	11.77	11.75	-0.02	-12.19	6.57	6.41
MCM-11	10.37	10.23	-0.14	-13.63	6.13	5.91
MCM-12	12.03	11.87	-0.16	-16.97	4.43	4.45
MCM-13	12.67	12.56	-0.11	-14.79	3.91	3.72
MCM-14	11.66	11.50	-0.16	-16.45	5.31	3.59
MCM-15	12.87	12.84	-0.03	-13.73	5.61	5.39
MCM-16	15.81	16.02	0.21	-12.58	8.57	8.47
MCM-17	11.67	11.49	-0.18	-15.77	3.69	3.13
MCM-18	9.00	9.00	0.00	-18.86	3.64	3.62
MCM-19	8.71	8.71	0.00	-19.61	3.27	2.12
MCM-20	10.07	10.07	0.00	-12.98	3.54	2.18
DR-01	7.58	NS	NS	-23.00	3.69	2.30
DR-02	7.49	NS	NS	-22.54	3.66	2.28
PT-01	7.49	NS	NS	-16.89	3.57	2.15
PT-02	7.64	NS	NS	-16.74	3.62	2.24
PT-03	7.45	NS	NS	-17.91	3.62	2.26
PT-04D	7.51	NS	NS	-33.34	3.57	2.22
MW-01R	12.61	NS	NS	-14.83	5.50	5.00
MW-02	11.10	NS	NS	-15.28	4.73	4.62
MW-03	11.26	NS	NS	-15.34	4.00	3.77
MW-04	9.20	NS	NS	-17.85	3.97	3.93
MW-05	13.24	NS	NS	-14.21	7.76	7.60
MW-06R	13.31	NS	NS	-10.29	7.56	7.42
MW-07	9.94	NS	NS	-11.62	6.84	6.67
MW-09	10.10	NS	NS	-14.05	4.61	4.39
MW-10	10.24	NS	NS	-17.06	3.83	3.31
MW-11	10.35	NS	NS	-23.05	3.45	1.40
MW-12	10.08	NS	NS	-23.47	4.47	3.02
PZ-9	9.41	9.41	0.00	-14.64	3.95	3.91
PZ-10	12.17	12.17	0.00	-10.74	4.11	4.11
PZ-11	9.37	9.37	0.00	-9.71	4.17	4.01
PZ-12	7.90	7.90	0.00	-10.80	3.17	2.99
DPZ-01	9.71	9.71	0.00	-8.99	4.27	2.85
DPZ-02	9.54	9.54	0.00	-9.16	4.21	2.71
DPZ-03	9.46	9.46	0.00	-9.24	6.64	5.60
DPZ-04	11.45	11.45	0.00	-7.25	3.86	3.06
DPZ-05	11.00	11.00	0.00	-7.70	4.72	3.55
DPZ-06	12.04	12.04	0.00	-6.66	5.40	5.21
RW-1	9.39	NS	NS	-17.03	3.02	2.60
RW-2	9.96	NS	NS	-17.31	3.42	3.45
RW-3	9.89	NS	NS	-22.40	4.02	3.46
RW-4	9.49	NS	NS	-17.39	3.70	3.33
RW-5	10.11	NS	NS	-27.11	3.81	2.34
RW-6	10.25	NS	NS	-26.34	3.93	3.43
RW-7	10.19	NS	NS	-27.99	3.97	2.52
RW-8	10.22	NS	NS	-21.40	3.99	3.41
RW-9	10.26	NS	NS	-27.45	4.40	2.91
RW-10	10.56	NS	NS	-27.24	4.38	2.97
Staff Gauge	Direct Read	NM	NM	NM	NM	NM
AP Monitor	Transducer	NM	NM	NM	5.24	5.09
Oil Dock Monitor	Transducer	NM	NM	NM	2.92	-2.71

Notes:
[1]Values calculated using April 16, 2020 survey data;
NS = Not Surveyed
NM = Not Measured
NA = Not Applicable

Table 2
Monitoring Well Network Summary
Plant McManus
Former AP-1
Brunswick, GA

Well ID	Well Function	Northing[1] (ft)	Easting[1] (ft)	Top of Casing Elevation[2] (ft NAVD 88)	Ground Surface Elevation[2,3] (ft NAVD 88)	Total Depth[4] (ft BTOC)	Top of Screen Elevation[2] (ft NAVD 88)	Bottom of Screen Elevation[2] (ft NAVD 88)
MCM-01	Upgradient Detection	443727.31	852732.08	8.63	5.70	27.32	-7.93	-17.93
MCM-02	Upgradient Detection	444496.53	852663.64	11.25	8.25	27.35	-5.22	-15.22
MCM-04	Downgradient Detection	444804.73	851695.27	12.39	9.50	28.57	-5.18	-15.18
MCM-05	Downgradient Detection	444716.63	851309.91	10.04	7.80	28.05	-7.25	-17.25
MCM-06	Downgradient Detection	444407.22	850782.11	10.15	7.87	27.20	-6.27	-16.27
MCM-07	Downgradient Detection	444059.38	850195.96	10.20	7.52	23.75	-2.76	-12.76
MCM-11	Upgradient Detection	442429.80	851072.91	10.23	7.52	24.00	-3.34	-13.34
MCM-12	Downgradient Detection	442821.17	851312.45	11.87	8.99	29.00	-6.12	-16.12
MCM-14	Downgradient Detection	443358.82	852317.59	11.50	8.66	28.11	-6.23	-16.23
MCM-15	Upgradient Detection	444825.53	851949.02	12.84	10.18	26.60	-4.53	-14.53
MCM-16	Upgradient Detection	444551.32	852716.60	16.02	13.04	28.39	-1.72	-11.72
MCM-17	Downgradient Detection	443074.41	851899.68	11.49	9.09	27.44	-4.81	-14.81
MCM-18	Upgradient Detection	442067.07	851698.41	9.00	6.01	27.86	-8.76	-18.76
MCM-19	Upgradient Detection	441157.82	852338.86	8.71	5.77	28.32	-9.53	-19.53
MCM-20	Upgradient Detection	440944.40	852185.15	10.07	7.07	23.05	-2.98	-12.98
DPZ-02	Downgradient Assessment	444391.02	850757.94	9.54	7.34	43.46	-28.84	-33.84

Notes:

1. Georiga State Plane - NAD 83 East Zone.
2. NAVD 88 - North American Vertical Datum of 1988
3. Ground Surface measured at the mag nail in the concrete pad
4. ft BTOC - feet below top of casing

Table 3
Piezometer Network Summary
Plant McManus
Former AP-1
Brunswick, GA

Well ID	Well Function	Northing[1] (ft)	Easting[1] (ft)	Top of Casing Elevation[2] (ft NAVD 88)	Ground Surface Elevation[2,3] (ft NAVD 88)	Total Depth[4] (ft BTOC)	Top of Screen Elevation[2] (ft NAVD 88)	Bottom of Screen Elevation[2] (ft NAVD 88)
MW-01R	Piezometer	443632.5586	852715.1308	12.61	NA	27.44	0.17	-14.83
MW-02	Piezometer	443354.3859	852304.1959	11.10	NA	26.80	-0.70	-15.70
MW-03	Piezometer	443081.3356	851904.8549	11.26	NA	27.00	-0.60	-15.60
MW-04	Piezometer	442854.6307	851408.1446	9.20	NA	27.40	-3.00	-18.00
MW-05	Piezometer	442578.1982	850752.3477	13.24	NA	27.60	0.90	-14.10
MW-06R	Piezometer	442378.5335	850499.0375	13.25	NA	20.00	3.25	-6.75
MW-07	Piezometer	442792.9894	850224.3520	9.94	NA	21.50	3.40	-11.60
MW-08	Piezometer	443310.0596	849977.9965	8.95	NA	27.70	-3.70	-18.70
MW-09	Piezometer	443736.7716	849920.8976	10.10	NA	24.20	0.80	-14.20
MW-10	Piezometer	444045.1224	850181.4059	10.24	NA	27.10	-2.80	-17.80
MW-11	Piezometer	444359.5263	850709.3205	10.42	NA	32.20	-8.20	-23.20
MW-12	Piezometer	444667.3620	851186.9003	10.08	NA	32.30	-8.60	-23.60
MCM-03	Piezometer	444414.8800	851984.6700	9.97	7.10	27.70	-7.73	-17.73
MCM-08	Piezometer	443758.8000	849716.9600	9.42	6.55	28.29	-8.39	-18.39
MCM-10	Piezometer	442791.8800	850453.0500	11.75	8.61	23.96	-1.25	-11.25
MCM-13	Piezometer	443030.2300	851826.1900	12.56	9.79	27.46	-4.90	-14.90
PZ-09	Piezometer	444082.13	849471.64	9.41	6.57	24.05	-4.56	-14.56
PZ-10	Piezometer	444949.09	851673.98	12.17	9.74	22.91	-0.66	-10.66
PZ-11	Piezometer	443222.86	849280.51	9.37	6.57	19.08	-4.63	-9.63
PZ-12	Piezometer	443593.34	849396.87	7.90	5.02	18.70	-5.72	-10.72
DPZ-01	Piezometer	444695.71	851277.40	9.71	7.36	40.78	-25.99	-30.99
DPZ-03	Piezometer	444073.16	850218.83	9.46	7.04	47.57	-33.03	-38.03
DPZ-04	Piezometer	443062.60	851881.94	11.45	8.96	51.23	-34.70	-39.70
DPZ-05	Piezometer	443376.32	852342.11	11.00	8.60	51.20	-35.12	-40.12
DPZ-06	Piezometer	444614.79	851846.27	12.04	9.59	40.50	-23.38	-28.38
RW-1	Piezometer	444094.0012	850251.1636	9.39	NA	26.42	-2.61	-12.61
RW-2	Piezometer	444161.8377	850367.2034	9.96	NA	27.27	-2.83	-12.83
RW-3	Piezometer	444228.4307	850479.7659	9.89	NA	32.29	-3.07	-13.07
RW-4	Piezometer	444299.3305	850599.2604	9.49	NA	26.88	-2.97	-12.97
RW-5	Piezometer	444369.6765	850714.2378	10.11	NA	37.22	-2.92	-22.92
RW-6	Piezometer	444436.3732	850831.7225	10.25	NA	36.58	-2.67	-22.67
RW-7	Piezometer	444504.5857	850949.3512	10.19	NA	38.17	-7.69	-22.69
RW-8	Piezometer	444572.9068	851064.4671	10.22	NA	31.62	-2.80	-17.80
RW-9	Piezometer	444641.6045	851181.2956	10.26	NA	37.71	-7.66	-22.66
RW-10	Piezometer	444706.8701	851295.5011	10.56	NA	37.80	-7.54	-22.54
DR-01	Piezometer	444407.62	850777.93	7.58	7.86	30.58	-8.00	-23.00
DR-02	Piezometer	444411.68	850784.46	7.49	7.90	30.03	-7.54	-22.54
PT-01	Piezometer	444408.70	850768.53	7.49	7.82	24.38	-6.89	-16.89
PT-02	Piezometer	444414.19	850777.91	7.64	7.91	24.38	-6.74	-16.74
PT-03	Piezometer	444418.92	850785.95	7.45	7.93	25.36	-7.91	-17.91
PT-04D	Piezometer	444400.23	850753.07	7.51	7.80	40.85	-23.34	-33.34

Notes:

1. Georiga State Plane - NAD 83 East Zone.
2. NAVD 88 - North American Vertical Datum of 1988
3. Ground Surface measured at the mag nail in the concrete pad
4. ft BTOC - feet below top of casing
5. PZ- 1 through PZ-8 were abandoned in 2019
6. MCM-09 was abandoned in 2020

NA - Not Available

Table 4
Groundwater Sampling Event Summary
Plant McManus
Former AP-1
Brunswick, GA

Well ID	Hydraulic Location	September 2022	Status of Monitoring Well
Purpose of Sampling Event		Semi-Annual GW Sampling	
MCM-01	Upgradient	X	Assessment
MCM-02	Upgradient	X	Assessment
MCM-04	Downgradient	X	Assessment
MCM-05	Downgradient	X	Assessment
MCM-06	Downgradient	X	Assessment
MCM-07	Downgradient	X	Assessment
MCM-11	Upgradient	X	Assessment
MCM-12	Downgradient	X	Assessment
MCM-14	Downgradient	X	Assessment
MCM-15	Upgradient	X	Assessment
MCM-16	Upgradient	X	Assessment
MCM-17	Downgradient	X	Assessment
MCM-18	Upgradient	X	Assessment
MCM-19	Upgradient	X	Assessment
MCM-20	Upgradient	X	Assessment
DPZ-02	Downgradient	X	Assessment

Notes:
X - Sampled
- - Not Sampled

Table 5a
Appendix III and IV Groundwater Data Summary
Plant McManus
Former Ash Pond (AP-1)
Brunswick, GA

WELL ID	Appendix III							Appendix IV													
Sample Date	Boron	Calcium	Chloride	Fluoride	Sulfate	TDS	pH	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Radium	Selenium	Thallium
DPZ-02																					
6/28/2022		225	9640		553	15400			0.025												
9/20/2022	1.7	240	7400	<4.0	820	13000	7.07	<0.0015	0.021	0.069	<0.00020	<0.000078	<0.0010	<0.00022	<0.00081	<0.0049	<0.000080	<0.00086	8.20	<0.0012	<0.00026
MCM-01																					
9/21/2022	0.35 J	9.2	17	<0.040	39	100	4.95	<0.0015	0.0057 J	0.11	<0.00020	<0.000078	0.0014 J	<0.00022	<0.00081	<0.0049	<0.000080	<0.00086	0.863	<0.0012	<0.00026
MCM-02																					
9/21/2022	0.23 J	4.3	23	<0.040	29	90	5.14	<0.0015	<0.0012	0.076	<0.00020	<0.000078	<0.0010	0.00032 J	<0.00081	<0.0049	<0.000080	<0.00086	0.789	<0.0012	<0.00026
MCM-04																					
9/21/2022	0.19 J	7.8	47	<0.040	52	180	5.34	<0.0015	0.0017 J	0.029	<0.00020	<0.000078	0.0015 J	0.0025	<0.00081	<0.0049	<0.000080	<0.00086	1.67	<0.0012	<0.00026
MCM-05																					
9/21/2022	0.61	28	1100	0.48	100	2100	6.93	<0.0015	0.0077	0.014	<0.00020	<0.000078	0.0016 J	0.00026 J	<0.00081	0.018 J	<0.000080	0.00095 J	1.42	<0.0012	<0.00026
MCM-06																					
6/28/2022		73.5	3520		213	6140			0.17												
9/20/2022	1.1	47	2800	1.1 J	320	3900	7.29	<0.0015	0.18	0.027	<0.00020	<0.000078	<0.0010	<0.00022	<0.00081	0.043	<0.000080	0.0013 J	1.51	<0.0012	<0.00026
MCM-07																					
9/21/2022	1.3	190	6400	0.18	660	9400	6.27	<0.0015	0.010	0.12	<0.00020	0.00020 J	0.0027 J	0.00031 J	<0.00081	0.020 J	<0.000080	0.00095 J	8.23	<0.0012	<0.00026
MCM-11																					
9/21/2022	0.17 J	7.6	32	0.11	23	110	4.97	<0.0015	0.013	0.040	<0.00020	<0.000078	0.0015 J	<0.00022	<0.00081	<0.0049	<0.000080	<0.00086	0.797	<0.0012	<0.00026
MCM-12																					
9/21/2022	1.3	4.7	400	1.3	<2.0	1300	6.30	<0.0015	<0.0012	0.068	0.0011 J	<0.000078	0.0077 J	0.00042 J	0.00083 J	0.0075 J	<0.000080	<0.00086	1.54	<0.0012	<0.00026
MCM-14																					
9/21/2022	1.0	74	3300	0.12	270	7400	6.61	<0.0015	<0.0012	0.059	<0.00020	<0.000078	0.0015 J	<0.00022	<0.00081	0.028	<0.000080	<0.00086	4.52	<0.0012	<0.00026
MCM-15																					
9/21/2022	0.14 J	0.83	3.3	<0.040	6.3	38	5.23	<0.0015	0.0044 J	0.022	<0.00020	<0.000078	0.0020 J	<0.00022	0.00092 J	<0.0049	<0.000080	0.00094 J	1.23	<0.0012	<0.00026
MCM-16																					
9/21/2022	0.12 J	4.6	17	<0.040	24	78	4.91	<0.0015	<0.0012	0.11	<0.00020	<0.000078	0.0015 J	0.00024 J	<0.00081	<0.0049	<0.000080	<0.00086	1.02	<0.0012	<0.00026
MCM-17																					
9/21/2022	1.8	110	3300	0.78	330	6200	6.72	<0.0015	<0.0012	0.089	0.00029 J	<0.000078	0.0063 J	0.00025 J	<0.00081	0.023 J	<0.000080	<0.00086	5.26	<0.0012	<0.00026
MCM-18																					
9/20/2022	0.18 J	20	1200	0.61 J	160	2000	4.47	<0.0015	0.0026 J	0.11	0.0030	0.00078 J	0.0021 J	<0.00022	<0.00081	<0.0049	<0.000080	<0.00086	9.35	<0.0012	<0.00026

Table 5a
Groundwater Data Summary
Plant McManus
Former Ash Pond (AP-1)
Brunswick, GA

WELL ID	Appendix III							Appendix IV													
Sample Date	Boron	Calcium	Chloride	Fluoride	Sulfate	TDS	pH	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Radium	Selenium	Thallium
MCM-19																					
9/20/2022	0.77	150	6200	<4.0	740	10000	5.14	<0.0015	0.021	0.12	0.017	0.0083	<0.0010	<0.00022	<0.00081	0.014 J	<0.000080	<0.00086	18.2	0.0046 J	<0.00026
MCM-20																					
9/20/2022	0.9	100	5700	4.3 J	750	8600	3.63	<0.0015	0.026	0.12	0.020	0.0043	<0.0010	0.030	<0.00081	0.029	<0.000080	<0.00086	30.1	0.0027 J	<0.00026

Notes:

1. Results for substances (except radium and pH) are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L) and pH is reported in standard units (SU).
2. Radium reported in Combined Radium 226 + 228
3. < indicates the substance was not detected above the analytical Method Detection Limit (MDL)
4. J - Estimated value. Substance was detected above the MDL and below the laboratory's Reporting Limit (RL)
5. U - Estimated value for radium. Substance was detected below the Minimum Detection Concentration (MDC) or a product of inaccurate or imprecise Method Detection Limits.
6. TDS - Total Dissolved Solids
7. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring
8. Blank values indicate the parameter was not analyzed
9. pH - Parameter measured in the field

Table 5b
Geochemical Groundwater Data Summary
Plant McManus
Former Ash Pond (AP-1)
Brunswick, GA

WELL ID / Sample Date	Total Alkalinity (CaCO3)	Bicarbonate (CaCO3)	Carbonate (CaCO3)	Iron	Iron, Dissolved	Magnesium	Magnesium, Dissolved	Potassium	Potassium, Dissolved	Sodium	Sodium, Dissolved	Sulfide
DPZ-02												
6/28/2022	394			0.022 J	<0.022	471	503	184	182	3610	4370	24.3
9/20/2022	410	410	<5.0	<0.026	<0.026	450		140		4100		23.0
MCM-01												
9/21/2022	5.0	5.0	<5.0	2.7		1.9		2.2		17		
MCM-02												
9/21/2022	5.9	5.9	<5.0	1.2		2.1		0.81 J		19		
MCM-04												
9/21/2022	12	12	<5.0	2.4		2.4		7.7		39		
MCM-05												
9/21/2022	210	210	<5.0	<0.026		60		33		620		
MCM-06												
6/28/2022	286			0.11	<0.022	154	151	94	83.0	1720	2160	23.3
9/20/2022	270	270	<5.0	0.056 J	<0.026	91		56		1400		20.0
MCM-07												
9/21/2022	300	300	<5.0	0.033 J		410		100		3100		
MCM-11												
9/21/2022	26	26	<5.0	7.0		1.8		0.69 J		23		
MCM-12												
9/21/2022	450	450	<5.0	0.17		8.7		19		400		
MCM-14												
9/21/2022	210	210	<5.0	<0.026		150		61		1600		

Table 5b
Groundwater Geochemical Data Summary
Plant McManus
Former Ash Pond (AP-1)
Brunswick, GA

WELL ID / Sample Date	Total Alkalinity (CaCO3)	Bicarbonate (CaCO3)	Carbonate (CaCO3)	Iron	Iron, Dissolved	Magnesium	Magnesium, Dissolved	Potassium	Potassium, Dissolved	Sodium	Sodium, Dissolved	Sulfide
MCM-15												
9/21/2022	6.7	6.7	<5.0	0.46		0.33 J		7.3		2.6		
MCM-16												
9/21/2022	3.4 J	<5.0	<5.0	1.7		2.3		1.0		11		
MCM-17												
9/21/2022	570	570	<5.0	0.034 J		170		86		1800		
MCM-18												
9/20/2022	<2.2	<5.0	<5.0	32		62		9.0		690		
MCM-19												
9/20/2022	29	29	<5.0	120		430		73		3200		
MCM-20												
9/20/2022	<2.2	<5.0	<5.0	130	120	330		74		2900		2.10

Notes:
1. Results for substances are reported in milligrams per liter (mg/L).
2. < indicates the substance was not detected above the analytical Method Detection Limit (MDL)
3. J - Estimated value. Substance was detected above the MDL and below the laboratory's Reporting Limit (RL)
4. Blank values indicate the parameter was not analyzed

Table 6
Plant McManus
Surface Water Analytical Results
Historical Data Summary

Sample ID	Date	pH	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Arsenic (mg/L)	Boron (mg/L)	Lithium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total Alk (mg/L)	TDS (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Sulfate (mg/L)
BG-1LT	6/8/2022	6.58	222	690	252	5370	<0.0043	2.9	0.097 J	99.2	<5.0	99.2	23000	7920	<5.0	1040
BG-1LT	9/28/2022	5.95	260	780	200	6000	<0.0060	2.8	0.10	110	<5.0	110	20000	13000	<8.0	1600
BG-2HT	6/7/2022	7.51	284	890	330	6990	<0.0043	3.6	0.11 J	118	<5.0	118	26000	10200	<5.0	1370
BG-2HT	9/22/2022	7.12	280	840	250	7200	0.0026	2.9 J	0.11	110	<5.0	110	24000	14000	<1.6	1900
T1-1HT	12/20/2022	7.56	360	1000	320	8300	0.0020	3.6	0.14	130	<5.0	130	24000	16000	<10	2000
T1-2HT	12/20/2022	7.55	370	1100	340	8800	0.0019	3.8	0.15	130	<5.0	130	27000	16000	<10	2100
T1-2HTS	12/20/2022	7.57	360	1000	330	8500	0.0021	3.7	0.14	130	<5.0	130	24000	18000	<10	2300
T1-3HT	12/20/2022	7.53	370	1100	340	8800	0.0025	4.0	0.14	130	<5.0	130	25000	29000	<10	3900
T1-3HTS	12/20/2022	7.54	380	1100	330	9300	0.0018	4.1	0.14	130	<5.0	130	23000	20000	<10	2600
T1-4HT	6/7/2022	7.43	242	755	274	5740	0.0049 J	3.4	0.11 J	98.8	<5.0	98.8	22700	3260	<5.0	380
T1-4HT	9/22/2022	6.98	240	720	240	5700	0.0027	2.0 J	0.092	100	<5.0	100	18000	12000	<10	1400
T1-4HTS	6/7/2022	7.50	248	775	282	5990	<0.0043	3.6	0.11 J	99.8	<5.0	99.8	24500	4270	1.1 J	1230
T1-4HTS	9/22/2022	7.03	240	720	250	5700	0.0023	2.1 J	0.092	100	<5.0	100	17000	12000	<1.6	1500
T1-4LT	9/28/2022	6.69	260	770	190	6100	<0.0060	2.5	0.10	110	<5.0	110	20000	13000	<8.0	1500
T2-1HT	6/7/2022	7.55	214	663	242	5180	<0.0043	3.4	0.098 J	87.5	<5.0	87.5	21200	3560	1.0 J	1050
T2-1HT	9/22/2022	7.28	230	700	240	5500	0.0027	2.1 J	0.090	100	<5.0	100	17000	15000	<1.6	1500
T2-2HT	6/7/2022	7.40	244	762	279	5940	<0.0043	3.8	0.11 J	98.5	<5.0	98.5	20600	4550	1.0 J	1210
T2-2HT	9/22/2022	6.99	250	750	250	5900	0.0025	2.0 J	0.096	100	<5.0	100	16000	15000	<1.6	1500
T2-2HTS	6/7/2022	7.49	206	634	232	4990	<0.0043	3.1	0.098 J	83.3	<5.0	83.3	18400	3430	1.0 J	1010
T2-2HTS	9/22/2022	7.06	230	690	230	5400	0.0028	1.9 J	0.088	100	<5.0	100	19000	12000	<1.6	1500
T2-3HT	6/7/2022	7.43	253	795	290	6130	<0.0043	3.8	0.12 J	98.3	<5.0	98.3	24100	4090	1.1 J	1250
T2-3HT	9/22/2022	6.97	250	760	250	6000	0.0030	2.2 J	0.097	100	<5.0	100	20000	13000	<1.6	1600
T2-3HTS	6/7/2022	7.58	230	717	263	5530	<0.0043	3.5	0.11 J	95.7	<5.0	95.7	23400	3740	1.0 J	1210

Sample ID	Date	pH	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Arsenic (mg/L)	Boron (mg/L)	Lithium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total Alk (mg/L)	TDS (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Sulfate (mg/L)
T2-3HTS	9/22/2022	7.03	240	710	240	5600	0.0024	1.9 J	0.087	100	<5.0	100	17000	12000	<1.6	1400
T2-4HT	6/7/2022	7.44	229	718	262	5460	<0.0043	3.3	0.10 J	89.8	<5.0	89.8	21600	3810	1.0 J	1040
T2-4HT	9/22/2022	7.01	240	720	240	5700	0.0027	2.1 J	0.090	100	<5.0	100	17000	12000	<1.6	1600
T2-4HTS	6/7/2022	7.56	208	647	235	4990	<0.0043	3.0	0.096 J	86.6	<5.0	86.6	19900	3700	1.0 J	1040
T2-4HTS	9/22/2022	7.04	240	730	250	5700	0.0025	1.7 J	0.091	100	<5.0	100	22000	11000	<1.6	1500
T2-4LT	9/28/2022	7.06	260	760	190	5900	<0.0060	2.5	0.10	110	<5.0	110	19000	14000	<8.0	1700
T3-1HT	12/20/2022	6.58	360	1100	320	8800	0.0020	3.8	0.14	130	<5.0	130	25000	20000	<10	2500
T3-2HT	12/20/2022	7.31	370	1100	330	8400	0.0018	3.9	0.12	130	<5.0	130	26000	20000	<10	2600
T3-2HTS	12/20/2022	7.14	360	1100	330	10000	0.0019	3.8	0.13	130	<5.0	130	26000	16000	<10	2000
T3-3HT	12/20/2022	7.46	360	1100	330	24000	0.0020	4.0	0.14	130	<5.0	130	24000	23000	<10	3100
T3-3HTS	12/20/2022	7.39	360	1100	330	9100	0.0023	3.8	0.15	130	<5.0	130	24000	16000	<10	2100
T3-4HT	6/7/2022	7.37	247	775	283	5870	<0.0043	3.3	0.11 J	101	<5.0	101	22800	3930	1.1 J	1240
T3-4HT	9/22/2022	6.98	240	750	250	5800	0.0027	2.2 J	0.091	100	<5.0	100	22000	13000	<1.6	1600
T3-4HTS	6/7/2022	7.51	171	521	187	4080	<0.0043	2.4 J	0.079 J	73.1	<5.0	73.1	16900	2660	<1.0	861
T3-4HTS	9/22/2022	7.09	210	620	210	4900	0.0021	2.1	0.079	95	<5.0	95	19000	11000	<1.6	1400
T3-4LT	9/28/2022	7.16	260	780	200	6100	<0.0060	2.7	0.10	110	<5.0	110	17000	14000	<8.0	1600
T4-1HB	6/7/2022	7.34	245	770	280	5830	<0.0043	3.5	0.11 J	96.6	<5.0	96.6	22900	3930	1.1 J	1250
T4-1HB	9/22/2022	6.85	260	770	250	6800	0.0030	2.9 J	0.099	110	<5.0	110	20000	13000	<1.6	1600
T4-1HS	6/7/2022	7.03	241	760	279	5790	<0.0043	3.5	0.11 J	98.9	<5.0	98.9	18900	4040	1.1 J	1240
T4-1HS	9/22/2022	6.59	250	760	250	6700	0.0030	2.9 J	0.099	110	<5.0	110	21000	13000	<1.6	1700
T4-2HB	6/7/2022	7.38	251	787	287	6000	<0.0043	3.7	0.11 J	99.8	<5.0	99.8	23100	4140	1.1 J	1300
T4-2HB	9/22/2022	6.98	260	770	240	6700	0.0030	2.9 J	0.10	110	<5.0	110	24000	13000	<1.6	1700
T4-2HS	6/7/2022	7.49	236	741	272	5670	<0.0043	3.4	0.11 J	99.6	<5.0	99.6	21400	3860	1.1 J	1210
T4-2HS	9/22/2022	6.96	260	770	240	6800	0.0023	2.9 J	0.10	110	<5.0	110	11000	13000	<1.6	1700
T4-3HB	6/7/2022	7.33	249	787	285	6020	<0.0043	3.5	0.11 J	105	<5.0	105	24700	4080	1.1 J	1360
T4-3HB	9/22/2022	6.97	260	790	250	6800	0.0027	3.4 J	0.10	110	<5.0	110	21000	13000	<1.6	1700
T4-3HS	6/7/2022	7.51	242	761	279	5880	<0.0043	3.4	0.10 J	97.5	<5.0	97.5	20800	8700	<5.0	1160

Sample ID	Date	pH	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Arsenic (mg/L)	Boron (mg/L)	Lithium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total Alk (mg/L)	TDS (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Sulfate (mg/L)
T4-3HS	9/22/2022	7.01	260	780	240	6700	0.0030	2.7 J	0.10	110	<5.0	110	23000	13000	<1.6	1600
T4-4HB	6/7/2022	7.49	263	829	305	6340	<0.0043	3.8	0.12 J	106	<5.0	106	25000	9750	<5.0	1300
T4-4HB	9/22/2022	7.06	270	810	230	6700	0.0027	2.7 J	0.11	110	<5.0	110	23000	13000	<1.6	1700
T4-4HS	6/7/2022	7.53	248	782	284	5980	<0.0043	3.4	0.11 J	101	<5.0	101	22000	9120	<5.0	1190
T4-4HS	9/22/2022	7.03	260	790	250	7000	0.0029	2.8 J	0.10	110	<5.0	110	21000	13000	<1.6	1700
T4-4L	9/27/2022	7.14	260	760	190	5900	<0.0060	2.6	0.10	130	<5.0	130	21000	13000	<8.0	1500

1. Resuts shown in milligrams per liter (mg/L).
2. "<" - not detected at the laboratory's Method Detection Limit (MDL) shown
3. "J" - Estimated comcentration greater than the laboratiry's MDL, but less than the laboratory's reporting limit.

Table 7
2022 Horizontal Groundwater Flow Velocity Calculations
Plant McManus
Former Ash Pond 1 (AP-1)
Brunswick, GA

	9/22/2022		9/21/2022	
Tide Level	Low	Low	High	High
Well 1	MCM-16	MCM-11	MCM-16	MCM-11
Well 2	MCM-02	MCM-12	MCM-02	MCM-12
Distance between	75.63	458.82	75.63	458.82
Head Well 1	8.47	5.91	8.57	6.13
Head Well 2	8.42	4.45	8.50	4.43
Hydraulic gradient i	0.00066	0.00318	0.00093	0.00371
K (cm/s site avg. from slug tests)	0.0012	0.0012	0.0012	0.0012
Effectivey Porosity Ne (0.35 from HAR)	0.35	0.35	0.35	0.35
Velocity in cm/s	2.27E-06	1.09E-05	3.17E-06	1.27E-05
Velocity in ft/day	0.0064	0.0309	0.0090	0.0360
Velocity in ft/year	2.35	11.29	3.28	13.14
Average Velocity ft/day	0.019		0.023	
Average Velocity ft/year	6.82		8.21	

K - Hydraulic Conductivity
HAR - Hydraulic Assessment Report
cm/s - Centimeters per second
ft/ day - feet per day
ft/year - feet per year

Table 8
Federal and Georgia EPD Groundwater Protection Standards September 2022
Plant McManus
Former AP-1
Brunswick, Georgia

MCMANUS ASH POND GWPS – FEDERAL AND GEORGIA EPD				
Constituent Name	**MCL**	**RSL**	**Background Limit**	**GWPS**
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.032	0.032
Barium, Total (mg/L)	2		0.22	2
Beryllium, Total (mg/L)	0.004		0.021	0.021
Cadmium, Total (mg/L)	0.005		0.0043	0.005
Chromium, Total (mg/L)	0.1		0.011	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.036	0.036
Combined Radium, Total (pCi/L)	5		55.8	55.8
Fluoride, Total (mg/L)	4		1.5	4
Lead, Total (mg/L)	n/a	0.015	0.005	0.015
Lithium, Total (mg/L)	n/a	0.04	0.029	0.04
Mercury, Total (mg/L)	0.002		0.0007	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.01	0.1
Selenium, Total (mg/L)	0.05		0.15	0.15
Thallium, Total (mg/L)	0.002		0.001	0.002

Groundwater Protection Standards from Appendix D - Groundwater Stats Consulting, September 2022

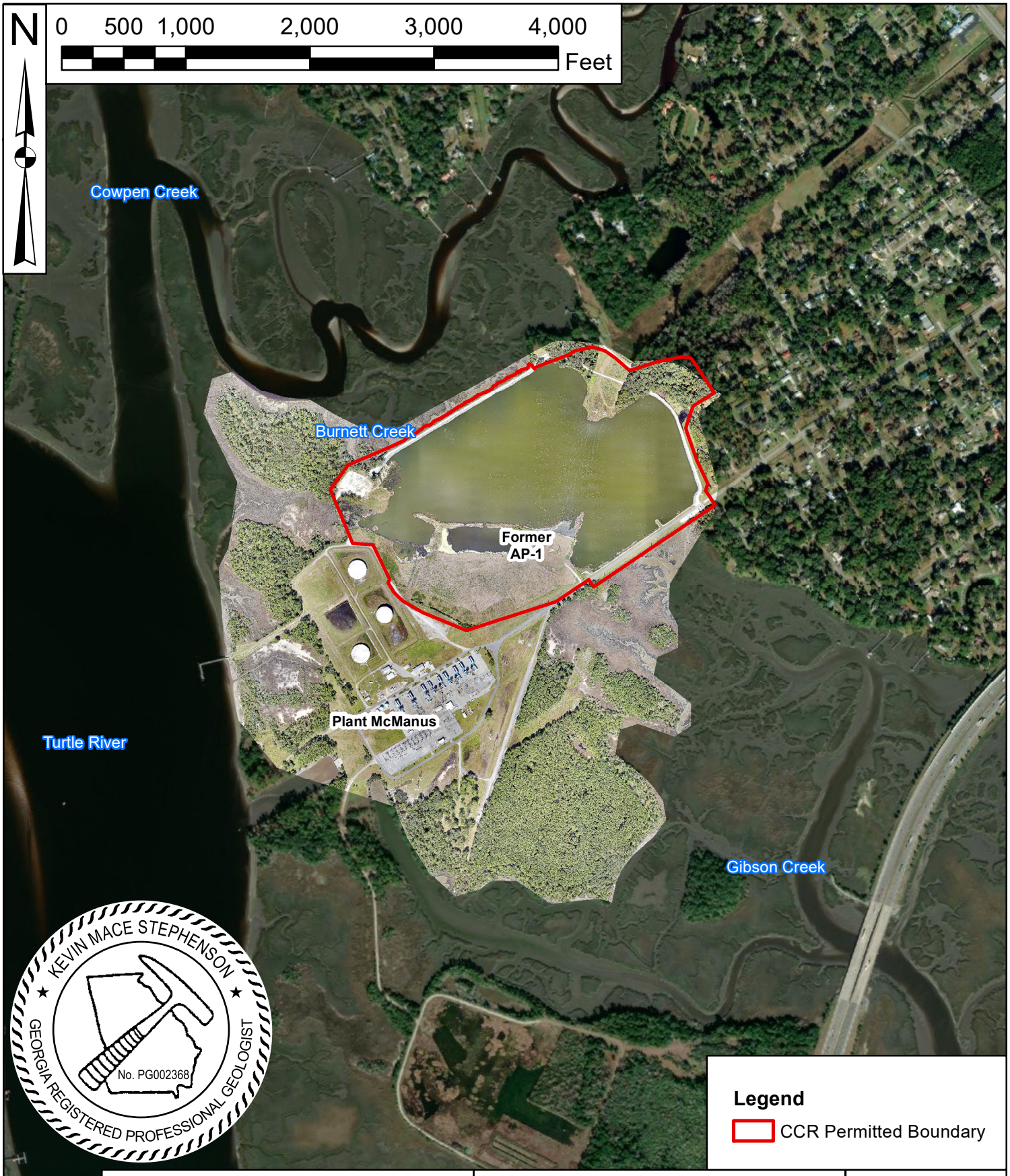
Notes:

mg/L = milligram per liter;
pCi/L = picocuries per liter;
n/a = Not Available;
MCL = Maximum Contaminant Level;
RSL = Rule Specified Limit (Adopted by EPD on February 2022)

[1] The background limits are used when determining the groundwater protection standard (GWPS) under 40 CFR § 257.95 (h) and Georgia Environmental Protection Division (EPD) R**u**le 391-3-4-.10(6)(a).

[2] Under 40 CFR § 257(h)(1-3) the GWPS is: (i) the MCL, (ii) where the MCL is not established, the rule specific GWPS, or (iii) background levels for constituents where the background level is higher than the MCL or rule specified GWPS.

FIGURES



KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002368

Legend

CCR Permitted Boundary

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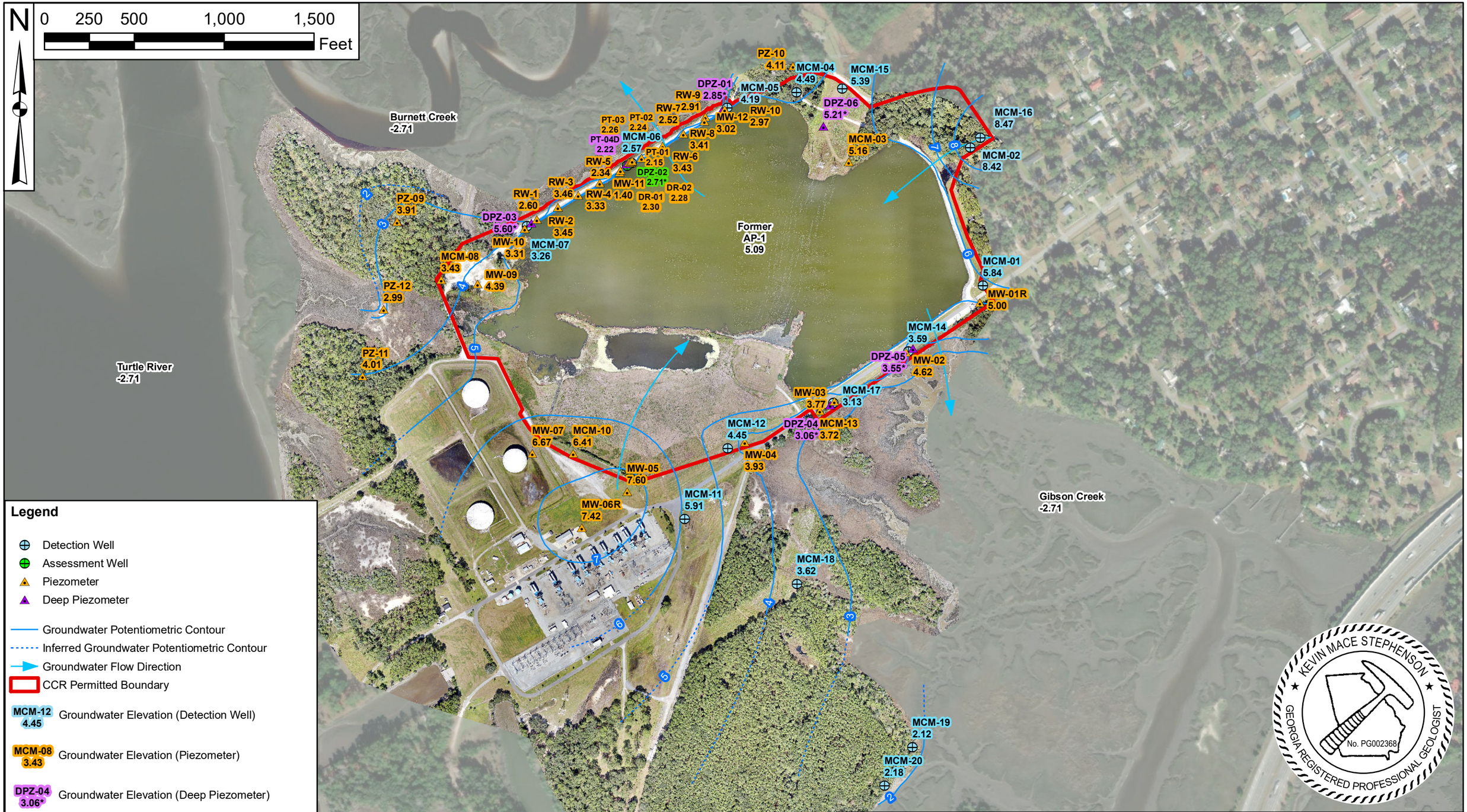
Woodstock, GA | February 2023

Plant McManus
Former AP-1
Site Location Map
Brunswick, GA

Figure
1

2022 Semiannual Groundwater Monitoring and Corrective Action Report



Legend

- Detection Well
- Assessment Well
- Piezometer
- Deep Piezometer
- Groundwater Potentiometric Contour
- Inferred Groundwater Potentiometric Contour
- Groundwater Flow Direction
- CCR Permitted Boundary
- MCM-12 4.45 — Groundwater Elevation (Detection Well)
- MCM-08 3.43 — Groundwater Elevation (Piezometer)
- DPZ-04 3.06* — Groundwater Elevation (Deep Piezometer)
- DPZ-02 2.71* — Groundwater Elevation (Assessment Well)

Notes:
NG - Not Gauged
Potentiometric surface elevations shown in ft NAVD 88.
*Deep piezometers not utilized for contouring. DPZ-02 has been reclassified as an assessment well.

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002368

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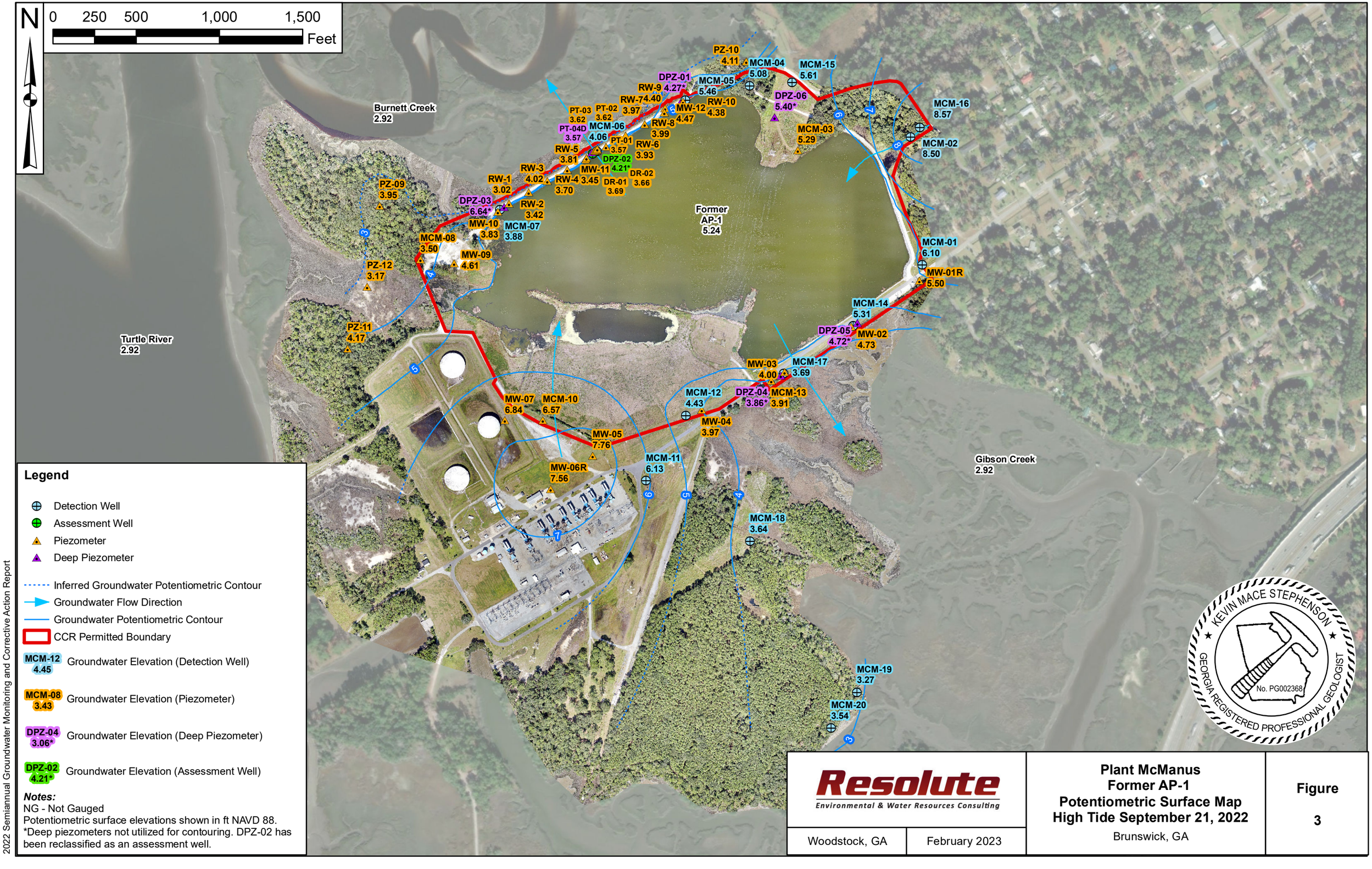
Plant McManus
Former AP-1
Potentiometric Surface Map
Low Tide September 22, 2022
Brunswick, GA

Figure
2

2022 Semiannual Groundwater Monitoring and Corrective Action Report



Legend

- Detection Well
- Assessment Well
- Piezometer
- Deep Piezometer
- Inferred Groundwater Potentiometric Contour
- Groundwater Flow Direction
- Groundwater Potentiometric Contour
- CCR Permitted Boundary
- MCM-12 4.45 — Groundwater Elevation (Detection Well)
- MCM-08 3.43 — Groundwater Elevation (Piezometer)
- DPZ-04 3.06* — Groundwater Elevation (Deep Piezometer)
- DPZ-02 4.21* — Groundwater Elevation (Assessment Well)

Notes:
NG - Not Gauged
Potentiometric surface elevations shown in ft NAVD 88.
*Deep piezometers not utilized for contouring. DPZ-02 has been reclassified as an assessment well.

2022 Semiannual Groundwater Monitoring and Corrective Action Report

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002368

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Plant McManus
Former AP-1
Potentiometric Surface Map
High Tide September 21, 2022
Brunswick, GA

Figure
3

N

0 210 420 840 1,260 1,680

Feet

MCM-04
MCM-15
MCM-05
MCM-16
MCM-02
DPZ-02
MCM-06
MCM-07
MCM-01
MCM-14
MCM-17
MCM-12
MCM-11
MCM-18
MCM-19
MCM-20

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GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002368

Legend

- Detection Well
- Assessment Well
- CCR Permitted Boundary

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Woodstock, GA	February 2023

Plant McManus
Former AP-1
Monitoring Well Location Map
Brunswick, GA

Figure
4

2022 Semiannual Groundwater Monitoring and Corrective Action Report

N

0 125 250 500 750 1,000

Feet

PZ-10
RW-10
DPZ-01
MW-12
RW-8
RW-9
DPZ-06
RW-7
PT-03
PT-02
RW-6
PT-04D
DR-02
DR-01
PT-01
RW-4
MW-11
RW-3
RW-2
RW-1
MCM-03
PZ-09
DPZ-03
MW-10
MCM-08
MW-09
PZ-12
MW-01R
DPZ-05
MW-08
MW-02
PZ-11
MW-03
DPZ-04
MCM-13
MW-04
MW-07
MCM-10
MW-05
MW-06R

Legend

- Piezometer
- Deep Piezometer
- CCR Permitted Boundary

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002368

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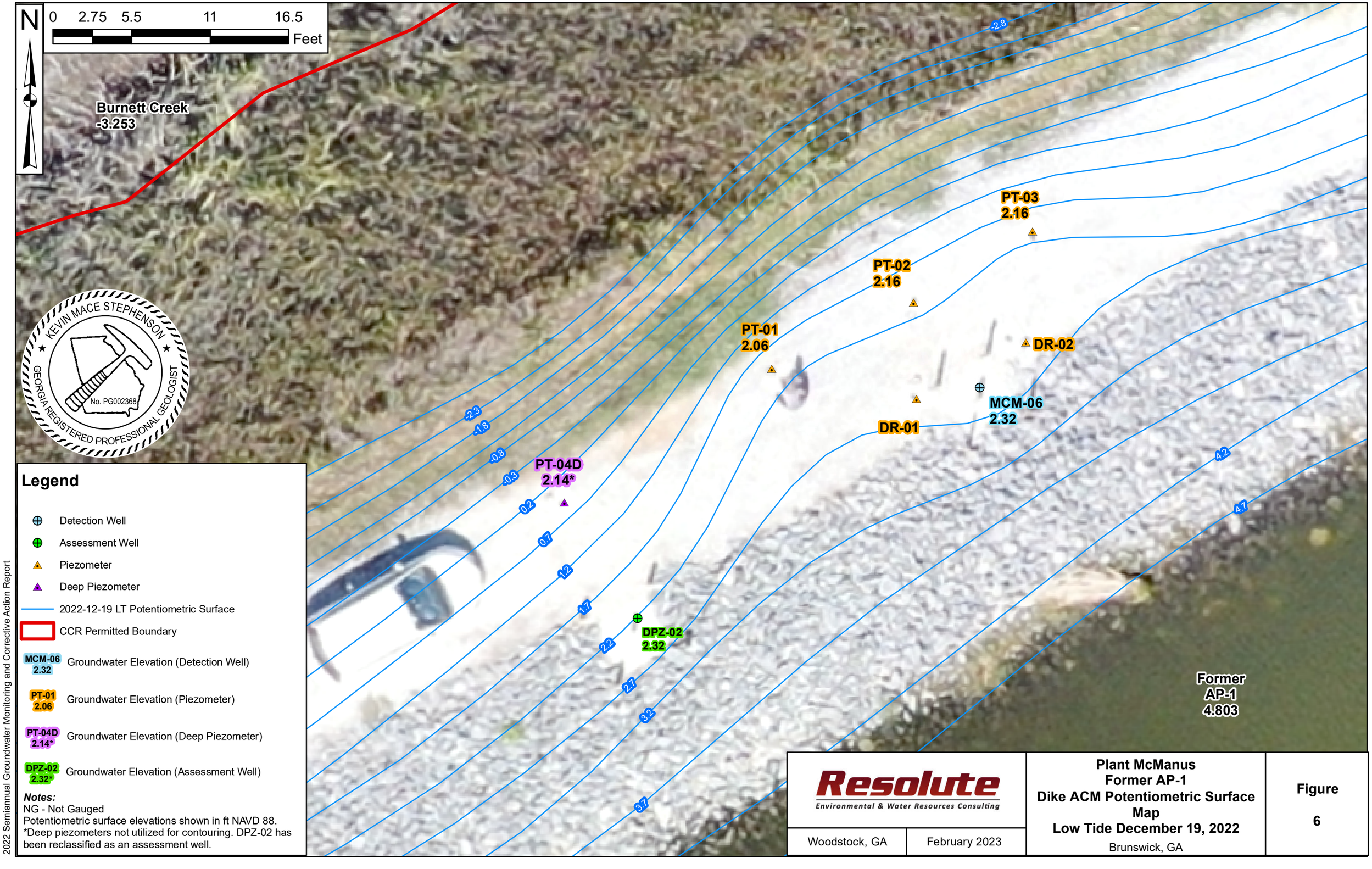
Plant McManus
Former AP-1
Piezometer Location Map
Brunswick, GA

Figure
5

2022 Semiannual Groundwater Monitoring and Corrective Action Report



Legend

- Detection Well
- Assessment Well
- Piezometer
- Deep Piezometer
- 2022-12-19 LT Potentiometric Surface
- CCR Permitted Boundary
- MCM-06 2.32 — Groundwater Elevation (Detection Well)
- PT-01 2.06 — Groundwater Elevation (Piezometer)
- PT-04D 2.14* — Groundwater Elevation (Deep Piezometer)
- DPZ-02 2.32* — Groundwater Elevation (Assessment Well)

Notes:
NG - Not Gauged
Potentiometric surface elevations shown in ft NAVD 88.
*Deep piezometers not utilized for contouring. DPZ-02 has been reclassified as an assessment well.

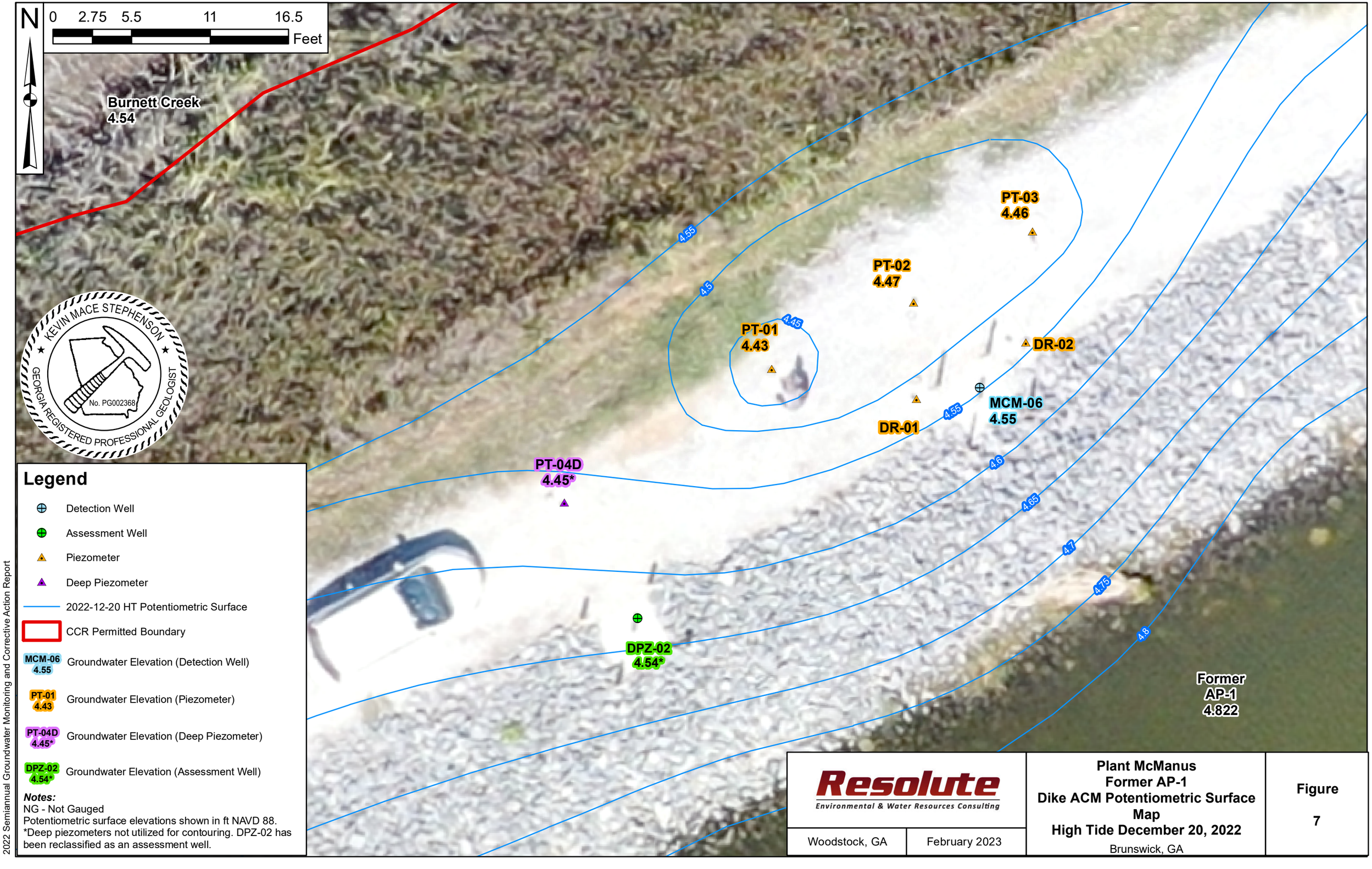
2022 Semiannual Groundwater Monitoring and Corrective Action Report

Resolute
Environmental & Water Resources Consulting

Woodstock, GA | February 2023

Plant McManus
Former AP-1
Dike ACM Potentiometric Surface Map
Low Tide December 19, 2022
Brunswick, GA

Figure
6



KEVIN MACE STEPHENSON
No. PG002368
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST

Legend

- Detection Well
- Assessment Well
- Piezometer
- Deep Piezometer
- 2022-12-20 HT Potentiometric Surface
- CCR Permitted Boundary
- MCM-06 4.55 — Groundwater Elevation (Detection Well)
- PT-01 4.43 — Groundwater Elevation (Piezometer)
- PT-04D 4.45* — Groundwater Elevation (Deep Piezometer)
- DPZ-02 4.54* — Groundwater Elevation (Assessment Well)

Notes:
NG - Not Gauged
Potentiometric surface elevations shown in ft NAVD 88.
*Deep piezometers not utilized for contouring. DPZ-02 has been reclassified as an assessment well.

2022 Semiannual Groundwater Monitoring and Corrective Action Report

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Woodstock, GA | February 2023

Plant McManus
Former AP-1
Dike ACM Potentiometric Surface Map
High Tide December 20, 2022
Brunswick, GA

Figure
7

N

0 190 380 760 1,140 1,520

Feet

Cowpen Creek

Burnett Creek

Turtle River

Mainland

Island

Former AP-1

T3-4HT
T3-4HTS
T3-4LT

Transect 3

T3-3HT
T3-3HTS

T2-4HT
T2-4HTS
T2-4LT

Transect 2

T3-2HT
T3-2HTS

T3-1HT

T2-3HT
T2-3HTS

T1-4HT
T1-4HTS
T1-4LT

T2-2HT
T2-2HTS

T2-1HT

Transect 1

T1-3HT
T1-3HTS

T1-1HT

T1-2HT
T1-2HTS

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002368

Legend

- Surface Water Sample
- CCR Permitted Boundary

2022 Semiannual Groundwater Monitoring and Corrective Action Report

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Woodstock, GA | February 2023

Plant McManus
Former AP-1
Surface Water Samples
Transects 1-3
Brunswick, GA

Figure

8

N

0 115 230 460 690 920

Feet

Former AP-1

T4-1HB
T4-1HS

T4-2HB
T4-2HS

T4-3HB
T4-3HS

Transect 4

T4-4L
T4-4HB
T4-4HS

Gibson Creek

Source: Esri, Maxar, G
Earthstar Geographics,

Legend

- Surface Water Sample
- CCR Permitted Boundary

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GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002368

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Environmental & Water Resources Consulting

Woodstock, GA | February 2023

Plant McManus
Former AP-1
Surface Water Samples
Transect 4
Brunswick, GA

Figure
9

2022 Semiannual Groundwater Monitoring and Corrective Action Report

APPENDIX A

WELL INSTALLATION, MAINTENANCE AND REPAIR DOCUMENTATION

Groundwater Monitoring Well Integrity Form

Site Name: McManus
Permit Number:
Well ID: MCM-01
Date: 9/21/22

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	X		
b	Is the well properly identified with the correct well ID?	X		
c	Is the well in a high traffic area and does the well require protection from traffic?		X	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	X		
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	X		
b	Is the casing free of degradation or deterioration?	X		
c	Does the casing have a functioning weep hole?	X		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	X		
e	Is the well locked and is the lock in good condition?	X		
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	X		
b	Is the well pad sloped away from the protective casing?	X		
c	Is the well pad in complete contact with the protective casing?	X		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	X		
e	Is the pad surface clean (not covered with sediment or debris)?	X		
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	X		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	X		
c	Is the well properly vented for equilibration of air pressure?	X		
d	Is the survey point clearly marked on the inner casing?	X		
e	Is the depth of the well consistent with the original well log?	X		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	X		
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	X		
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	X		
c	Does the well require redevelopment (low flow, turbid)?		X	
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	X		

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: McManus
Permit Number:
Well ID: MCM-02
Date: 9/21/22

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	X		
b	Is the well properly identified with the correct well ID?	X		
c	Is the well in a high traffic area and does the well require protection from traffic?		X	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	X		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	X		
b	Is the casing free of degradation or deterioration?	X		
c	Does the casing have a functioning weep hole?	X		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	X		
e	Is the well locked and is the lock in good condition?	X		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	X		
b	Is the well pad sloped away from the protective casing?	X		
c	Is the well pad in complete contact with the protective casing?	X		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	X		
e	Is the pad surface clean (not covered with sediment or debris)?	X		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	X		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	X		
c	Is the well properly vented for equilibration of air pressure?	X		
d	Is the survey point clearly marked on the inner casing?	X		
e	Is the depth of the well consistent with the original well log?	X		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	X		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?	X		
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			X
c	Does the well require redevelopment (low flow, turbid)?		X	
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	X		

7 Corrective actions as needed, by date:

KEVIN MACE STERLING
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002366

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: McManus
Permit Number:
Well ID: MCM-03
Date: 9/20/22

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	X		
b	Is the well properly identified with the correct well ID?	X		
c	Is the well in a high traffic area and does the well require protection from traffic?		X	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	X		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	X		
b	Is the casing free of degradation or deterioration?	X		
c	Does the casing have a functioning weep hole?	X		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	X		
e	Is the well locked and is the lock in good condition?	X		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	X		
b	Is the well pad sloped away from the protective casing?	X		
c	Is the well pad in complete contact with the protective casing?	X		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	X		
e	Is the pad surface clean (not covered with sediment or debris)?	X		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	X		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	X		
c	Is the well properly vented for equilibration of air pressure?	X		
d	Is the survey point clearly marked on the inner casing?	X		
e	Is the depth of the well consistent with the original well log?	X		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	X		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			X
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			X
c	Does the well require redevelopment (low flow, turbid)?			X
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	X		

7 Corrective actions as needed, by date:

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002366

Signature and Seal of RE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: McManus
Permit Number:
Well ID: MCM-04
Date: 9/21/22

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	X		
b	Is the well properly identified with the correct well ID?	X		
c	Is the well in a high traffic area and does the well require protection from traffic?		X	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	X		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	X		
b	Is the casing free of degradation or deterioration?	X		
c	Does the casing have a functioning weep hole?	X		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	X		
e	Is the well locked and is the lock in good condition?	X		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	X		
b	Is the well pad sloped away from the protective casing?	X		
c	Is the well pad in complete contact with the protective casing?	X		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	X		
e	Is the pad surface clean (not covered with sediment or debris)?	X		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	X		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	X		
c	Is the well properly vented for equilibration of air pressure?	X		
d	Is the survey point clearly marked on the inner casing?	X		
e	Is the depth of the well consistent with the original well log?	X		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	X		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?	X		
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			X
c	Does the well require redevelopment (low flow, turbid)?	X		
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	X		

7 Corrective actions as needed, by date:

KEVIN MACE SUTTERFIELD
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002368

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: McManus
Permit Number:
Well ID: McM-05
Date: 9/21/22

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	X		
b	Is the well properly identified with the correct well ID?	X		
c	Is the well in a high traffic area and does the well require protection from traffic?		X	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	X		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	X		
b	Is the casing free of degradation or deterioration?	X		
c	Does the casing have a functioning weep hole?	X		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	X		
e	Is the well locked and is the lock in good condition?	X		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	X		
b	Is the well pad sloped away from the protective casing?	X		
c	Is the well pad in complete contact with the protective casing?	X		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	X		
e	Is the pad surface clean (not covered with sediment or debris)?	X		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	X		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	X		
c	Is the well properly vented for equilibration of air pressure?	X		
d	Is the survey point clearly marked on the inner casing?	X		
e	Is the depth of the well consistent with the original well log?	X		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	X		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?	X		
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	X		
c	Does the well require redevelopment (low flow, turbid)?		X	
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	X		

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

KELVIN MACE STEPHENS
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002368

Groundwater Monitoring Well Integrity Form

Site Name: Plant McManus
Permit Number:
Well ID: MCM-06
Date: 9/20/22

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?	✓		
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	✓		
c	Does the well require redevelopment (low flow, turbid)?		✓	
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

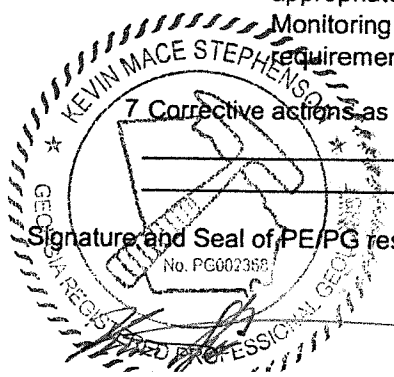
KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002368

Groundwater Monitoring Well Integrity Form

Site Name: McManus
Permit Number:
Well ID: MCM-07
Date: 9/21/22

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	X		
b	Is the well properly identified with the correct well ID?	X		
c	Is the well in a high traffic area and does the well require protection from traffic?		X	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	X		
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	X		
b	Is the casing free of degradation or deterioration?	X		
c	Does the casing have a functioning weep hole?	X		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	X		
e	Is the well locked and is the lock in good condition?	X		
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	X		
b	Is the well pad sloped away from the protective casing?	X		
c	Is the well pad in complete contact with the protective casing?	X		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	X		
e	Is the pad surface clean (not covered with sediment or debris)?	X		
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	X		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	X		
c	Is the well properly vented for equilibration of air pressure?	X		
d	Is the survey point clearly marked on the inner casing?	X		
e	Is the depth of the well consistent with the original well log?	X		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	X		
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	X		
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	X		
c	Does the well require redevelopment (low flow, turbid)?		X	
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	X		

7 Corrective actions as needed, by date:



Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: McManus
Permit Number:
Well ID: MCM-08
Date: 9/20/22

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	X		
b	Is the well properly identified with the correct well ID?	X		
c	Is the well in a high traffic area and does the well require protection from traffic?		X	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	X		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	X		
b	Is the casing free of degradation or deterioration?	X		
c	Does the casing have a functioning weep hole?	X		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	X		
e	Is the well locked and is the lock in good condition?	X		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	X		
b	Is the well pad sloped away from the protective casing?	X		
c	Is the well pad in complete contact with the protective casing?	X		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	X		
e	Is the pad surface clean (not covered with sediment or debris)?	X		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	X		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	X		
c	Is the well properly vented for equilibration of air pressure?	X		
d	Is the survey point clearly marked on the inner casing?	X		
e	Is the depth of the well consistent with the original well log?	X		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	X		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			X
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			X
c	Does the well require redevelopment (low flow, turbid)?			X
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	X		

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

KEVIN MACE STEPHENS
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002368

Groundwater Monitoring Well Integrity Form

Site Name: McManus
Permit Number:
Well ID: MCM-10
Date: 9/20/22

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	X		
b	Is the well properly identified with the correct well ID?	X		
c	Is the well in a high traffic area and does the well require protection from traffic?		X	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	X		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	X		
b	Is the casing free of degradation or deterioration?	X		
c	Does the casing have a functioning weep hole?	X		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	X		
e	Is the well locked and is the lock in good condition?	X		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	X		
b	Is the well pad sloped away from the protective casing?	X		
c	Is the well pad in complete contact with the protective casing?	X		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	X		
e	Is the pad surface clean (not covered with sediment or debris)?	X		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	X		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	X		
c	Is the well properly vented for equilibration of air pressure?	X		
d	Is the survey point clearly marked on the inner casing?	X		
e	Is the depth of the well consistent with the original well log?	X		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	X		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			X
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			X
c	Does the well require redevelopment (low flow, turbid)?			X
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	X		

7 Corrective actions as needed, by date:

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002366

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: McManus
Permit Number:
Well ID: MCM-11
Date: 9/21/22

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	X		
b	Is the well properly identified with the correct well ID?	X		
c	Is the well in a high traffic area and does the well require protection from traffic?		X	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	X		
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	X		
b	Is the casing free of degradation or deterioration?	X		
c	Does the casing have a functioning weep hole?	X		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	X		
e	Is the well locked and is the lock in good condition?	X		
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	X		
b	Is the well pad sloped away from the protective casing?	X		
c	Is the well pad in complete contact with the protective casing?	X		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	X		
e	Is the pad surface clean (not covered with sediment or debris)?	X		
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	X		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	X		
c	Is the well properly vented for equilibration of air pressure?	X		
d	Is the survey point clearly marked on the inner casing?	X		
e	Is the depth of the well consistent with the original well log?	X		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	X		
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	X		
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			X
c	Does the well require redevelopment (low flow, turbid)?		X	
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	X		

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

KEVIN MACE STERLING — GEORGIA REGISTERED PROFESSIONAL GEOLOGIST — No. PG002366

Groundwater Monitoring Well Integrity Form

Site Name: Plant McManus
Permit Number:
Well ID: MCM-12
Date: 9/21/22

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?	✓		
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	✓		
c	Does the well require redevelopment (low flow, turbid)?		✓	
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

KEVIN MACE STEPHENSON
No. PG002368
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST

Groundwater Monitoring Well Integrity Form

Site Name McManus
Permit Number
Well ID MCM-13
Date

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	X		
b	Is the well properly identified with the correct well ID?	X		
c	Is the well in a high traffic area and does the well require protection from traffic?		X	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	X		
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	X		
b	Is the casing free of degradation or deterioration?	X		
c	Does the casing have a functioning weep hole?	X		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	X		
e	Is the well locked and is the lock in good condition?	X		
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	X		
b	Is the well pad sloped away from the protective casing?	X		
c	Is the well pad in complete contact with the protective casing?	X		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	X		
e	Is the pad surface clean (not covered with sediment or debris)?	X		
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	X		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	X		
c	Is the well properly vented for equilibration of air pressure?	X		
d	Is the survey point clearly marked on the inner casing?	X		
e	Is the depth of the well consistent with the original well log?	X		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	X		
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?			X
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			X
c	Does the well require redevelopment (low flow, turbid)?			X
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	X		

★ 7 Corrective actions as needed, by date:

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002306

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McManus
Permit Number:
Well ID: MCM-14
Date: 9/21/22

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?	✓		
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	✓		
c	Does the well require redevelopment (low flow, turbid)?		✓	
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

Signature and Seal of RE/PG responsible for inspection

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002366

Groundwater Monitoring Well Integrity Form

Site Name: McManus
Permit Number:
Well ID: McM-15
Date: 9/21/22

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	X		
b	Is the well properly identified with the correct well ID?	X		
c	Is the well in a high traffic area and does the well require protection from traffic?		X	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	X		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	X		
b	Is the casing free of degradation or deterioration?	X		
c	Does the casing have a functioning weep hole?	X		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	X		
e	Is the well locked and is the lock in good condition?	X		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	X		
b	Is the well pad sloped away from the protective casing?	X		
c	Is the well pad in complete contact with the protective casing?	X		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	X		
e	Is the pad surface clean (not covered with sediment or debris)?	X		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	X		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	X		
c	Is the well properly vented for equilibration of air pressure?	X		
d	Is the survey point clearly marked on the inner casing?	X		
e	Is the depth of the well consistent with the original well log?	X		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	X		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?	X		
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	X		
c	Does the well require redevelopment (low flow, turbid)?		X	
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	X		

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002366

Groundwater Monitoring Well Integrity Form

Site Name: McManus
Permit Number:
Well ID: MCM-16
Date: 9/21/22

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	X		
b	Is the well properly identified with the correct well ID?	X		
c	Is the well in a high traffic area and does the well require protection from traffic?		X	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	X		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	X		
b	Is the casing free of degradation or deterioration?	X		
c	Does the casing have a functioning weep hole?	X		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	X		
e	Is the well locked and is the lock in good condition?	X		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	X		
b	Is the well pad sloped away from the protective casing?	X		
c	Is the well pad in complete contact with the protective casing?	X		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	X		
e	Is the pad surface clean (not covered with sediment or debris)?	X		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	X		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	X		
c	Is the well properly vented for equilibration of air pressure?	X		
d	Is the survey point clearly marked on the inner casing?	X		
e	Is the depth of the well consistent with the original well log?	X		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	X		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?	X		
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	X		
c	Does the well require redevelopment (low flow, turbid)?		X	
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	X		

* Corrective actions as needed, by date:

KEVIN MACE STEPHENS
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002308

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name McManus
Permit Number
Well ID MCM-17
Date

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	X		
b	Is the well properly identified with the correct well ID?	X		
c	Is the well in a high traffic area and does the well require protection from traffic?		X	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	X		
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	X		
b	Is the casing free of degradation or deterioration?	X		
c	Does the casing have a functioning weep hole?	X		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	X		
e	Is the well locked and is the lock in good condition?	X		
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	X		
b	Is the well pad sloped away from the protective casing?	X		
c	Is the well pad in complete contact with the protective casing?	X		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	X		
e	Is the pad surface clean (not covered with sediment or debris)?	X		
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	X		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	X		
c	Is the well properly vented for equilibration of air pressure?	X		
d	Is the survey point clearly marked on the inner casing?	X		
e	Is the depth of the well consistent with the original well log?	X		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	X		
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	X		
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	X		
c	Does the well require redevelopment (low flow, turbid)?		X	
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	X		

If Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002368

Groundwater Monitoring Well Integrity Form

Site Name: Mallard
Permit Number:
Well ID: MCM-18
Date: 9/20/22

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	X		
b	Is the well properly identified with the correct well ID?	X		
c	Is the well in a high traffic area and does the well require protection from traffic?		X	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	X		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	X		
b	Is the casing free of degradation or deterioration?	X		
c	Does the casing have a functioning weep hole?	X		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	X		
e	Is the well locked and is the lock in good condition?	X		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	X		
b	Is the well pad sloped away from the protective casing?	X		
c	Is the well pad in complete contact with the protective casing?	X		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	X		
e	Is the pad surface clean (not covered with sediment or debris)?	X		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	X		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	X		
c	Is the well properly vented for equilibration of air pressure?	X		
d	Is the survey point clearly marked on the inner casing?	X		
e	Is the depth of the well consistent with the original well log?	X		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	X		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?	X		
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			X
c	Does the well require redevelopment (low flow, turbid)?		X	
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	X		
7	Corrective actions as needed, by date:			

KEVIN MACE STEPHENS
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002253

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: McManus
Permit Number:
Well ID: MCM-19
Date: 9/20/22

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	X		
b	Is the well properly identified with the correct well ID?	X		
c	Is the well in a high traffic area and does the well require protection from traffic?		X	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	X		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	X		
b	Is the casing free of degradation or deterioration?	X		
c	Does the casing have a functioning weep hole?	X		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	X		
e	Is the well locked and is the lock in good condition?	X		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	X		
b	Is the well pad sloped away from the protective casing?	X		
c	Is the well pad in complete contact with the protective casing?	X		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	X		
e	Is the pad surface clean (not covered with sediment or debris)?	X		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	X		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	X		
c	Is the well properly vented for equilibration of air pressure?	X		
d	Is the survey point clearly marked on the inner casing?	X		
e	Is the depth of the well consistent with the original well log?	X		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	X		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?	X		
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			X
c	Does the well require redevelopment (low flow, turbid)?		X	
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	X		

7 Corrective actions as needed, by date:

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST

Signature and Seal of PE/PG responsible for inspection

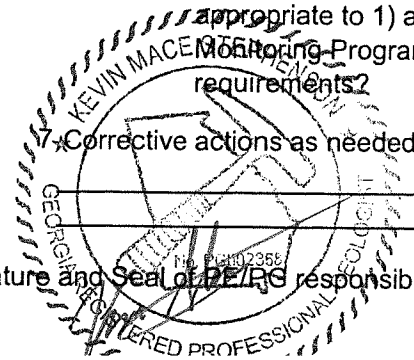
Groundwater Monitoring Well Integrity Form

Site Name: McManus
Permit Number:
Well ID: MCM-20
Date: 9/20/23

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	X		
b	Is the well properly identified with the correct well ID?	X		
c	Is the well in a high traffic area and does the well require protection from traffic?		X	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	X		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	X		
b	Is the casing free of degradation or deterioration?	X		
c	Does the casing have a functioning weep hole?	X		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	X		
e	Is the well locked and is the lock in good condition?	X		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	X		
b	Is the well pad sloped away from the protective casing?	X		
c	Is the well pad in complete contact with the protective casing?	X		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	X		
e	Is the pad surface clean (not covered with sediment or debris)?	X		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	X		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	X		
c	Is the well properly vented for equilibration of air pressure?	X		
d	Is the survey point clearly marked on the inner casing?	X		
e	Is the depth of the well consistent with the original well log?	X		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	X		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?	X		
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			X
c	Does the well require redevelopment (low flow, turbid)?		X	
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	X		

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection



Groundwater Monitoring Well Integrity Form

Site Name: Plant McManus
Permit Number:
Well ID: PZ-09
Date: 9/27/22

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			✓
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			✓
c	Does the well require redevelopment (low flow, turbid)?			✓
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002368

Groundwater Monitoring Well Integrity Form

Site Name: Plant McManus
Permit Number:
Well ID: PZ-10
Date: 9/27/22

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			✓
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			✓
c	Does the well require redevelopment (low flow, turbid)?			✓
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002368

Groundwater Monitoring Well Integrity Form

Site Name: Plant McManus
Permit Number:
Well ID: PZ-11
Date: 9/27/22

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			✓
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			✓
c	Does the well require redevelopment (low flow, turbid)?			✓
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002368

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McManus
Permit Number:
Well ID: PZ-12
Date: 9/27/22

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			✓
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			✓
c	Does the well require redevelopment (low flow, turbid)?			✓
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

KEVIN MACE STEPHENSON
No. PG002368
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST

Groundwater Monitoring Well Integrity Form

Site Name McManus
Permit Number
Well ID DPZ-01
Date 9/22/22

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	X		
b	Is the well properly identified with the correct well ID?	X		
c	Is the well in a high traffic area and does the well require protection from traffic?		X	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	X		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	X		
b	Is the casing free of degradation or deterioration?	X		
c	Does the casing have a functioning weep hole?	X		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	X		
e	Is the well locked and is the lock in good condition?	X		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	X		
b	Is the well pad sloped away from the protective casing?	X		
c	Is the well pad in complete contact with the protective casing?	X		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	X		
e	Is the pad surface clean (not covered with sediment or debris)?	X		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	X		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	X		
c	Is the well properly vented for equilibration of air pressure?	X		
d	Is the survey point clearly marked on the inner casing?	X		
e	Is the depth of the well consistent with the original well log?	X		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	X		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			X
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			X
c	Does the well require redevelopment (low flow, turbid)?			X
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	X		

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

KEVIN MACE STEPHENS
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
PG002368

Groundwater Monitoring Well Integrity Form

Site Name McManus
Permit Number
Well ID DP2-02
Date 9/20/22

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	X		
b	Is the well properly identified with the correct well ID?	X		
c	Is the well in a high traffic area and does the well require protection from traffic?		X	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	X		
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	X		
b	Is the casing free of degradation or deterioration?	X		
c	Does the casing have a functioning weep hole?	X		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	X		
e	Is the well locked and is the lock in good condition?	X		
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	X		
b	Is the well pad sloped away from the protective casing?	X		
c	Is the well pad in complete contact with the protective casing?	X		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	X		
e	Is the pad surface clean (not covered with sediment or debris)?	X		
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	X		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	X		
c	Is the well properly vented for equilibration of air pressure?	X		
d	Is the survey point clearly marked on the inner casing?	X		
e	Is the depth of the well consistent with the original well log?	X		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	X		
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	X		
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			X
c	Does the well require redevelopment (low flow, turbid)?		X	
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	X		

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

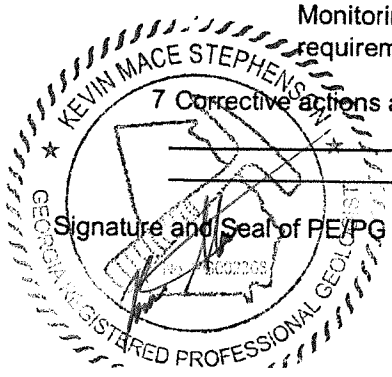
KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002363

Groundwater Monitoring Well Integrity Form

Site Name: McManus
Permit Number:
Well ID: DPZ-03
Date: 9/22/22

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	X		
b	Is the well properly identified with the correct well ID?	X		
c	Is the well in a high traffic area and does the well require protection from traffic?		X	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	X		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	X		
b	Is the casing free of degradation or deterioration?	X		
c	Does the casing have a functioning weep hole?	X		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	X		
e	Is the well locked and is the lock in good condition?	X		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	X		
b	Is the well pad sloped away from the protective casing?	X		
c	Is the well pad in complete contact with the protective casing?	X		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	X		
e	Is the pad surface clean (not covered with sediment or debris)?	X		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	X		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	X		
c	Is the well properly vented for equilibration of air pressure?	X		
d	Is the survey point clearly marked on the inner casing?	X		
e	Is the depth of the well consistent with the original well log?	X		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	X		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			X
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			X
c	Does the well require redevelopment (low flow, turbid)?			X
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	X		

7 Corrective actions as needed, by date:



Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: McManus
Permit Number:
Well ID: DPZ-04
Date: 9/22/22

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	X		
b	Is the well properly identified with the correct well ID?	X		
c	Is the well in a high traffic area and does the well require protection from traffic?		X	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	X		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	X		
b	Is the casing free of degradation or deterioration?	X		
c	Does the casing have a functioning weep hole?	X		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	X		
e	Is the well locked and is the lock in good condition?	X		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	X		
b	Is the well pad sloped away from the protective casing?	X		
c	Is the well pad in complete contact with the protective casing?	X		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	X		
e	Is the pad surface clean (not covered with sediment or debris)?	X		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	X		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	X		
c	Is the well properly vented for equilibration of air pressure?	X		
d	Is the survey point clearly marked on the inner casing?	X		
e	Is the depth of the well consistent with the original well log?	X		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	X		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			X
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			X
c	Does the well require redevelopment (low flow, turbid)?			X
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	X		

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

KEVIN MACE STEPHENSON
GEOLOGIST
REGISTERED PROFESSIONAL GEOLOGIST

Groundwater Monitoring Well Integrity Form

Site Name: McManus
Permit Number:
Well ID: DPZ-05
Date: 9/22/22

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	X		
b	Is the well properly identified with the correct well ID?	X		
c	Is the well in a high traffic area and does the well require protection from traffic?		X	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	X		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	X		
b	Is the casing free of degradation or deterioration?	X		
c	Does the casing have a functioning weep hole?	X		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	X		
e	Is the well locked and is the lock in good condition?	X		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	X		
b	Is the well pad sloped away from the protective casing?	X		
c	Is the well pad in complete contact with the protective casing?	X		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	X		
e	Is the pad surface clean (not covered with sediment or debris)?	X		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	X		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	X		
c	Is the well properly vented for equilibration of air pressure?	X		
d	Is the survey point clearly marked on the inner casing?	X		
e	Is the depth of the well consistent with the original well log?	X		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	X		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			X
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			X
c	Does the well require redevelopment (low flow, turbid)?			X
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	X		

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
PG002369

Groundwater Monitoring Well Integrity Form

Site Name: McManus
Permit Number:
Well ID: DPZ-06
Date: 9/22/22

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	X		
b	Is the well properly identified with the correct well ID?	X		
c	Is the well in a high traffic area and does the well require protection from traffic?		X	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	X		
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	X		
b	Is the casing free of degradation or deterioration?	X		
c	Does the casing have a functioning weep hole?	X		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	X		
e	Is the well locked and is the lock in good condition?	X		
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	X		
b	Is the well pad sloped away from the protective casing?	X		
c	Is the well pad in complete contact with the protective casing?	X		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	X		
e	Is the pad surface clean (not covered with sediment or debris)?	X		
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	X		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	X		
c	Is the well properly vented for equilibration of air pressure?	X		
d	Is the survey point clearly marked on the inner casing?	X		
e	Is the depth of the well consistent with the original well log?	X		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	X		
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?			X
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			X
c	Does the well require redevelopment (low flow, turbid)?			X
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	X		

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002383

Groundwater Monitoring Well Integrity Form

Site Name: Plant McManus
Permit Number:
Well ID: RW-1
Date: 9/22/22

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?			✓
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			✓
c	Does the well require redevelopment (low flow, turbid)?			✓
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002300

Groundwater Monitoring Well Integrity Form

Site Name: Plant McManus
Permit Number:
Well ID: RW-2
Date: 9/22/22

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			✓
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			✓
c	Does the well require redevelopment (low flow, turbid)?			✓
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002398

Groundwater Monitoring Well Integrity Form

Site Name: Plant McManus
Permit Number:
Well ID: RW-3
Date: 9/22/22

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?			✓
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			✓
c	Does the well require redevelopment (low flow, turbid)?			✓
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

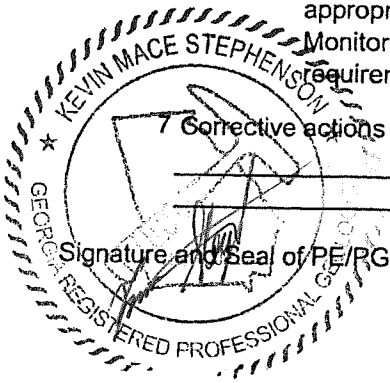
KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002388

Groundwater Monitoring Well Integrity Form

Site Name: Plant McManus
Permit Number:
Well ID: RW-4
Date: 9/22/22

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			✓
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			✓
c	Does the well require redevelopment (low flow, turbid)?			✓
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:



Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McManus
Permit Number:
Well ID: RW-5
Date: 9/22/22

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			✓
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			✓
c	Does the well require redevelopment (low flow, turbid)?			✓
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
PG001368

Groundwater Monitoring Well Integrity Form

Site Name: Plant McManus
Permit Number:
Well ID: RW-6
Date: 9/22/22

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			✓
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			✓
c	Does the well require redevelopment (low flow, turbid)?			✓
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McManus
Permit Number:
Well ID: RW-7
Date: 9/22/22

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			✓
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			✓
c	Does the well require redevelopment (low flow, turbid)?			✓
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002389

Groundwater Monitoring Well Integrity Form

Site Name: Plant McManus
Permit Number:
Well ID: RW-8
Date: 9/22/22

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?			✓
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			✓
c	Does the well require redevelopment (low flow, turbid)?			✓
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McManus
Permit Number:
Well ID: RW-9
Date: 9/22/22

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?			✓
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			✓
c	Does the well require redevelopment (low flow, turbid)?			✓
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

KEVIN MACE STEPHENSON ★ GEORGIA REGISTERED PROFESSIONAL GEOLOGIST ★ No. PG002368

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McManus
Permit Number:
Well ID: RW-10
Date: 9/22/22

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?			✓
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			✓
c	Does the well require redevelopment (low flow, turbid)?			✓
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002366

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McManus
Permit Number:
Well ID: MW-01R
Date: 9/22/22

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?			✓
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			✓
c	Does the well require redevelopment (low flow, turbid)?			✓
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McManus
Permit Number:
Well ID: MW-02
Date: 9/22/22

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			✓
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			✓
c	Does the well require redevelopment (low flow, turbid)?			✓
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST

Groundwater Monitoring Well Integrity Form

Site Name: Plant McManus
Permit Number:
Well ID: MW-03
Date: 9/22/22

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			✓
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			✓
c	Does the well require redevelopment (low flow, turbid)?			✓
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

KEVIN MACE STEPHENSON ★ GEORGIA REGISTERED PROFESSIONAL GEOLOGIST

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McManus
Permit Number:
Well ID: MW-04
Date: 9/22/22

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			✓
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			✓
c	Does the well require redevelopment (low flow, turbid)?			✓
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McManus
Permit Number:
Well ID: MW-05
Date: 9/22/22

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
		✓		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
		✓		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
		✓		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			✓
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			✓
c	Does the well require redevelopment (low flow, turbid)?			✓
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST

Groundwater Monitoring Well Integrity Form

Site Name: Plant McManus
Permit Number:
Well ID: MW-06R
Date: 9/22/22

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?			✓
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			✓
c	Does the well require redevelopment (low flow, turbid)?			✓
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002362

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant McManus
Permit Number:
Well ID: MW-07
Date: 9/22/22

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			✓
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			✓
c	Does the well require redevelopment (low flow, turbid)?			✓
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

Signature and Seal of PE/RG responsible for inspection

KEVIN MACE STEPHENSON
No. PG002358
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST

Groundwater Monitoring Well Integrity Form

Site Name: Plant McManus
Permit Number:
Well ID: MW-09
Date: 9/22/22

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			✓
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			✓
c	Does the well require redevelopment (low flow, turbid)?			✓
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST

Groundwater Monitoring Well Integrity Form

Site Name: Plant McManus
Permit Number:
Well ID: MW-10
Date: 9/22/22

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?			✓
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			✓
c	Does the well require redevelopment (low flow, turbid)?			✓
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

KEVIN MACE STEPHENSON
No. PG002358
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST

Groundwater Monitoring Well Integrity Form

Site Name: Plant McManus
Permit Number:
Well ID: ~~X~~ MW-11
Date: 9/22/22

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			✓
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			✓
c	Does the well require redevelopment (low flow, turbid)?			✓
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

KEVIN MACE STEPHENSON ★ GEORGIA REGISTERED PROFESSIONAL GEOLOGIST

Groundwater Monitoring Well Integrity Form

Site Name: Plant McManus
Permit Number:
Well ID: MW-12
Date: 9/22/22

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			✓
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			✓
c	Does the well require redevelopment (low flow, turbid)?			✓
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002369

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

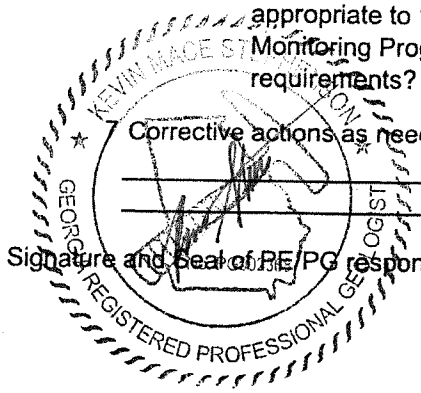
Site Name: McManus
Permit Number:
Well ID: PT-01
Date: 9/20/22

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	X		
b	Is the well properly identified with the correct well ID?	X		
c	Is the well in a high traffic area and does the well require protection from traffic?		X	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	X		
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	X		
b	Is the casing free of degradation or deterioration?	X		
c	Does the casing have a functioning weep hole?			X
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	X		
e	Is the well locked and is the lock in good condition?			X
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	X		
b	Is the well pad sloped away from the protective casing?	X		
c	Is the well pad in complete contact with the protective casing?	X		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	X		
e	Is the pad surface clean (not covered with sediment or debris)?	X		
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	X		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	X		
c	Is the well properly vented for equilibration of air pressure?			X
d	Is the survey point clearly marked on the inner casing?	X		
e	Is the depth of the well consistent with the original well log?	X		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	X		
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	X		
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			X
c	Does the well require redevelopment (low flow, turbid)?		X	
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	X		

Flush Mount

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection



Groundwater Monitoring Well Integrity Form

Site Name: McManus
Permit Number:
Well ID: PT-02
Date: 9/20/22

		yes	no	n/a	
1 Location/Identification					
a	Is the well visible and accessible?	X			
b	Is the well properly identified with the correct well ID?	X			
c	Is the well in a high traffic area and does the well require protection from traffic?		X		
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	X			
2 Protective Casing					
a	Is the protective casing free from apparent damage and able to be secured?	X			
b	Is the casing free of degradation or deterioration?	X			
c	Does the casing have a functioning weep hole?			X	Flush Mount
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	X			
e	Is the well locked and is the lock in good condition?			X	
3 Surface pad					
a	Is the well pad in good condition (not cracked or broken)?	X			
b	Is the well pad sloped away from the protective casing?	X			
c	Is the well pad in complete contact with the protective casing?	X			
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	X			
e	Is the pad surface clean (not covered with sediment or debris)?	X			
4 Internal casing					
a	Does the cap prevent entry of foreign material into the well?	X			
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	X			
c	Is the well properly vented for equilibration of air pressure?			X	
d	Is the survey point clearly marked on the inner casing?	X			
e	Is the depth of the well consistent with the original well log?	X			
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	X			
5 Sampling: Groundwater Wells Only:					
a	Does well recharge adequately when purged?	X			
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			X	
c	Does the well require redevelopment (low flow, turbid)?		X		
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	X			

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002368

Groundwater Monitoring Well Integrity Form

Site Name: Plant McManus
Permit Number:
Well ID: PT-03
Date: 9/20/22

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?			✓
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?			✓
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?			✓
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?	✓		
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			✓
c	Does the well require redevelopment (low flow, turbid)?		✓	
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

KEVIN MACE STANTON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST

Groundwater Monitoring Well Integrity Form

Site Name: McManus
Permit Number:
Well ID: PT-04D
Date: 9/21/22

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	X		
b	Is the well properly identified with the correct well ID?	X		
c	Is the well in a high traffic area and does the well require protection from traffic?		X	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	X		
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	X		
b	Is the casing free of degradation or deterioration?	X		
c	Does the casing have a functioning weep hole?			X
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	X		
e	Is the well locked and is the lock in good condition?			X
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	X		
b	Is the well pad sloped away from the protective casing?	X		
c	Is the well pad in complete contact with the protective casing?	X		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	X		
e	Is the pad surface clean (not covered with sediment or debris)?	X		
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	X		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	X		
c	Is the well properly vented for equilibration of air pressure?			X
d	Is the survey point clearly marked on the inner casing?	X		
e	Is the depth of the well consistent with the original well log?	X		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	X		
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	X		
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			X
c	Does the well require redevelopment (low flow, turbid)?		X	
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	X		

Flush Mount

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

KEVIN MACE STEPHENSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST

Groundwater Monitoring Well Integrity Form

Site Name: McManus
Permit Number:
Well ID: DR-01
Date: 9/20/22

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	X		
b	Is the well properly identified with the correct well ID?	X		
c	Is the well in a high traffic area and does the well require protection from traffic?		X	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	X		
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	X		
b	Is the casing free of degradation or deterioration?	X		
c	Does the casing have a functioning weep hole?			X
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	X		
e	Is the well locked and is the lock in good condition?			X
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	X		
b	Is the well pad sloped away from the protective casing?	X		
c	Is the well pad in complete contact with the protective casing?	X		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	X		
e	Is the pad surface clean (not covered with sediment or debris)?	X		
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	X		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	X		
c	Is the well properly vented for equilibration of air pressure?			X
d	Is the survey point clearly marked on the inner casing?	X		
e	Is the depth of the well consistent with the original well log?	X		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	X		
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	X		
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			X
c	Does the well require redevelopment (low flow, turbid)?		X	
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	X		

Flush Mount

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

KEVIN MACE STEPHENS
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002368

Groundwater Monitoring Well Integrity Form

Site Name: Plant McManus
Permit Number:
Well ID: DR-02
Date: 9/20/22

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?			✓
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?			✓
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?			✓
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	✓		
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			✓
c	Does the well require redevelopment (low flow, turbid)?		✓	
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

KEVIN MACE PETERSON
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. PG002368

Resolute
Environmental & Water Resources Consulting

MEMORANDUM

Date: June 21, 2022

To: Kristen Jurinko – Georgia Power

CC: Ben Hodges

From: Resolute Environmental

Subject: Plant McManus Ash Pond - Well Maintenance and Repair Documentation
Georgia Power Company

Resolute Environmental has prepared this memorandum to provide documentation of groundwater monitoring well maintenance and/or repair performed at PLANT MCMANUS during the semiannual reporting period. All repairs and maintenance were completed in accordance with the Georgia Environmental Protection Division (GAEPD) guidance on routine visual inspections of groundwater monitoring wells.

Georgia Power Site/Unit	Date Performed	Well ID	Maintenance/ Repair Performed
Plant McManus Ash Pond	6/14/22	MCM-06	Redeveloped Well
Plant McManus Ash Pond	6/14/22	DPZ-02	Redeveloped Well
Plant McManus Ash Pond	6/14/22	PT-01	Developed Well
Plant McManus Ash Pond	6/14/22	PT-02	Developed Well
Plant McManus Ash Pond	6/14/22	PT-04D	Developed Well
Plant McManus Ash Pond	6/14/22	DR-02	Developed Well
Plant McManus Ash Pond	6/15/22	DR-01	Developed Well
Plant McManus Ash Pond	6/15/22	PT-03	Developed Well

Resolute
Environmental & Water Resources Consulting

MEMORANDUM

Date: June 30, 2022

To: Kristen Jurinko – Georgia Power

CC: Ben Hodges

From: Resolute Environmental

Subject: Plant McManus Ash Pond - Well Maintenance and Repair Documentation
Georgia Power Company

Resolute Environmental has prepared this memorandum to provide documentation of groundwater monitoring well maintenance and/or repair performed at PLANT MCMANUS during the semiannual reporting period. All repairs and maintenance were completed in accordance with the Georgia Environmental Protection Division (GAEPD) guidance on routine visual inspections of groundwater monitoring wells.

Georgia Power Site/Unit	Date Performed	Well ID	Maintenance/ Repair Performed
Plant McManus Ash Pond	6/27/22	DPZ-02	Installed MCM-13's AquaTROLL 200
Plant McManus Ash Pond	6/27/22	MCM-13	Installed DPZ-02's Level TROLL 500
Plant McManus Ash Pond	6/28/22	MW-04	New pad poured around existing pad to ensure ground contact
Plant McManus Ash Pond	6/29/22	PT-03	Added concrete floor to flush mount vault
Plant McManus Ash Pond	6/29/22	DR-01	Added concrete floor to flush mount vault

Resolute
Environmental & Water Resources Consulting

MEMORANDUM

Date: February 28, 2023

To: Kristen Jurinko – Georgia Power

CC: Ben Hodges

From: Resolute Environmental

Subject: Plant McManus Ash Pond - Well Maintenance and Repair Documentation
Georgia Power Company

Resolute Environmental has prepared this memorandum to provide documentation of groundwater monitoring well maintenance and/or repair performed at PLANT MCMANUS during the semiannual reporting period. All repairs and maintenance were completed in accordance with the Georgia Environmental Protection Division (GAEPD) guidance on routine visual inspections of groundwater monitoring wells.

Georgia Power Site/Unit	Date Performed	Well ID	Maintenance/ Repair Performed
Plant McManus Ash Pond	9/27/22	MCM-10	Installed Level TROLL 500
Plant McManus Ash Pond	9/27/22	MCM-17	Replaced broken transducer with new AquaTROLL 200 unit
Plant McManus Ash Pond	9/27/22	MCM-19	Replaced broken transducer with new AquaTROLL 200 unit
Plant McManus Ash Pond	9/27/22	MCM-20	Replaced broken transducer with new AquaTROLL 200 unit
Plant McManus Ash Pond	10/5/22	PT-01	Installed AquaTROLL 200
Plant McManus Ash Pond	10/5/22	PT-02	Installed AquaTROLL 200
Plant McManus Ash Pond	10/5/22	PT-03	Installed AquaTROLL 200
Plant McManus Ash Pond	10/5/22	PT-04D	Installed AquaTROLL 200
Plant McManus Ash Pond	12/01/22	PT-02	Added concrete floor to flush mount vault

APPENDIX B

LABORATORY ANALYTICAL, DATA VALIDATION AND FIELD SAMPLING REPORTS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

July 27, 2022

Joju Abraham
Georgia Power-CCR
2480 Maner Road
Atlanta, GA 30339

RE: Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on June 30, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Minneapolis

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

Sincerely,

Nicole D'Oleo

Nicole D'Oleo
nicole.d'oleo@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Joe Booth, Resolute Environmental & Water Resources
Trent Godwin, Resolute Environmental & Water Resources
Kristen Jurinko
Laura Midkiff, Georgia Power
Ms. Lauren Petty, Southern Company
Kevin Stephenson, Resolute Environmental & Water Resources Consulting, LLC
Stephen Wilson, Resolute Environmental & Water Resources Consulting, LLC

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab
A2LA Certification #: 2926.01*
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009*
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014*
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605*
Georgia Certification #: 959
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086*
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064*
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137*
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240*
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081*
New Jersey Certification #: MN002
New York Certification #: 11647*
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Ohio VAP Certification (1800) #: CL110*
Oklahoma Certification #: 9507*
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001*
Pennsylvania Certification #: 68-00563*
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192*
Utah Certification #: MN00064*
Vermont Certification #: VT-027053137
Virginia Certification #: 460163*
Washington Certification #: C486*
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01
USDA Permit #: P330-19-00208
*Please Note: Applicable air certifications are denoted with an asterisk (*).

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Laboratory ID: 99030
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92612546001	**PT-01**	Water	06/28/22 15:55	06/30/22 11:05
92612546002	**PT-02**	Water	06/28/22 10:00	06/30/22 11:05
92612546003	**PT-03**	Water	06/28/22 14:50	06/30/22 11:05
92612546004	**PT-04D**	Water	06/28/22 14:20	06/30/22 11:05
92612546005	**DR-01**	Water	06/28/22 14:52	06/30/22 11:05
92612546006	**DR-02**	Water	06/28/22 16:05	06/30/22 11:05
92612546007	**MCM-06**	Water	06/28/22 16:00	06/30/22 11:05
92612546008	**DPZ-02**	Water	06/28/22 11:45	06/30/22 11:05
92612546009	**DUP-1**	Water	06/28/22 00:00	06/30/22 11:05
92612546010	**FB-1**	Water	06/28/22 10:40	06/30/22 11:05

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92612546001	**PT-01**	EPA 6010D	DM	5	PASI-M
		EPA 6010D	IP	5	PASI-M
		EPA 6020B	PW1	1	PASI-M
		EPA 6020B	PW1	1	PASI-M
		SM 2320B-2011	SMS	1	PASI-A
		SM 2540C-2011	MAB2	1	PASI-A
		SM 4500-S2D-2011	JP1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		SM 4500-Cl-E-2011	ANM	1	PASI-A
92612546002	**PT-02**	EPA 6010D	DM	5	PASI-M
		EPA 6010D	IP	5	PASI-M
		EPA 6020B	PW1	1	PASI-M
		EPA 6020B	PW1	1	PASI-M
		SM 2320B-2011	SMS	1	PASI-A
		SM 2540C-2011	MAB2	1	PASI-A
		SM 4500-S2D-2011	JP1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		SM 4500-Cl-E-2011	ANM	1	PASI-A
92612546003	**PT-03**	EPA 6010D	DM	5	PASI-M
		EPA 6010D	IP	5	PASI-M
		EPA 6020B	PW1	1	PASI-M
		EPA 6020B	PW1	1	PASI-M
		SM 2320B-2011	SMS	1	PASI-A
		SM 2540C-2011	MAB2	1	PASI-A
		SM 4500-S2D-2011	JP1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		SM 4500-Cl-E-2011	ANM	1	PASI-A
92612546004	**PT-04D**	EPA 6010D	DM	5	PASI-M
		EPA 6010D	IP	5	PASI-M
		EPA 6020B	PW1	1	PASI-M
		EPA 6020B	PW1	1	PASI-M
		SM 2320B-2011	SMS	1	PASI-A
		SM 2540C-2011	MAB2	1	PASI-A
		SM 4500-S2D-2011	JP1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		SM 4500-Cl-E-2011	ANM	1	PASI-A
92612546005	**DR-01**	EPA 6010D	DM	5	PASI-M

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SAMPLE ANALYTE COUNT

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6010D	IP	5	PASI-M
		EPA 6020B	PW1	1	PASI-M
		EPA 6020B	PW1	1	PASI-M
		SM 2320B-2011	SMS	1	PASI-A
		SM 2540C-2011	MAB2	1	PASI-A
		SM 4500-S2D-2011	JP1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		SM 4500-Cl-E-2011	ANM	1	PASI-A
92612546006	**DR-02**	EPA 6010D	DM	5	PASI-M
		EPA 6010D	IP	5	PASI-M
		EPA 6020B	PW1	1	PASI-M
		EPA 6020B	PW1	1	PASI-M
		SM 2320B-2011	SMS	1	PASI-A
		SM 2540C-2011	MAB2	1	PASI-A
		SM 4500-S2D-2011	JP1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		SM 4500-Cl-E-2011	ANM	1	PASI-A
92612546007	**MCM-06**	EPA 6010D	DM	5	PASI-M
		EPA 6010D	IP	5	PASI-M
		EPA 6020B	PW1	1	PASI-M
		EPA 6020B	PW1	1	PASI-M
		SM 2320B-2011	SMS	1	PASI-A
		SM 2540C-2011	MAB2	1	PASI-A
		SM 4500-S2D-2011	JP1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		SM 4500-Cl-E-2011	ANM	1	PASI-A
92612546008	**DPZ-02**	EPA 6010D	DM	5	PASI-M
		EPA 6010D	IP	5	PASI-M
		EPA 6020B	PW1	1	PASI-M
		EPA 6020B	PW1	1	PASI-M
		SM 2320B-2011	SMS	1	PASI-A
		SM 2540C-2011	MAB2	1	PASI-A
		SM 4500-S2D-2011	JP1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		SM 4500-Cl-E-2011	ANM	1	PASI-A
92612546009	**DUP-1**	EPA 6010D	DM	5	PASI-M
		EPA 6010D	IP	5	PASI-M

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SAMPLE ANALYTE COUNT

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020B	PW1	1	PASI-M
		EPA 6020B	PW1	1	PASI-M
		SM 2320B-2011	SMS	1	PASI-A
		SM 2540C-2011	MAB2	1	PASI-A
		SM 4500-S2D-2011	JP1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		SM 4500-Cl-E-2011	ANM	1	PASI-A
92612546010	**FB-1**	EPA 6010D	DM	5	PASI-M
		EPA 6010D	IP	5	PASI-M
		EPA 6020B	PW1	1	PASI-M
		EPA 6020B	PW1	1	PASI-M
		SM 2320B-2011	SMS	1	PASI-A
		SM 2540C-2011	MAB2	1	PASI-A
		SM 4500-S2D-2011	JP1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		SM 4500-Cl-E-2011	ANM	1	PASI-A

PASI-A = Pace Analytical Services - Asheville
PASI-M = Pace Analytical Services - Minneapolis

Pace Analytical Services, LLC
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SUMMARY OF DETECTION

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92612546001	**PT-01**					
EPA 6010D	Calcium	81.1	mg/L	0.50	07/07/22 11:32	
EPA 6010D	Iron	0.22	mg/L	0.050	07/07/22 11:32	
EPA 6010D	Magnesium	179	mg/L	0.50	07/07/22 11:32	
EPA 6010D	Potassium	101	mg/L	2.5	07/07/22 11:32	
EPA 6010D	Sodium	1800	mg/L	25.0	07/07/22 12:34	P6
EPA 6010D	Calcium, Dissolved	75.9	mg/L	0.50	07/07/22 13:49	
EPA 6010D	Iron, Dissolved	0.062	mg/L	0.050	07/07/22 13:49	
EPA 6010D	Magnesium, Dissolved	174	mg/L	0.50	07/07/22 13:49	P6
EPA 6010D	Potassium, Dissolved	89.3	mg/L	2.5	07/07/22 13:49	P6
EPA 6010D	Sodium, Dissolved	2100	mg/L	20.0	07/07/22 14:37	P6
EPA 6020B	Arsenic	0.026	mg/L	0.00050	07/15/22 15:39	
EPA 6020B	Arsenic, Dissolved	0.028	mg/L	0.00050	07/15/22 14:22	
SM 2320B-2011	Alkalinity, Total as CaCO3	290	mg/L	5.0	07/05/22 11:39	
SM 2540C-2011	Total Dissolved Solids	6820	mg/L	500	07/01/22 10:53	
SM 4500-S2D-2011	Sulfide	18.7	mg/L	2.5	07/01/22 03:59	
EPA 300.0 Rev 2.1 1993	Sulfate	269	mg/L	50.0	07/01/22 10:48	
SM 4500-Cl-E-2011	Chloride	3950	mg/L	500	07/05/22 14:44	
92612546002	**PT-02**					
EPA 6010D	Calcium	56.7	mg/L	0.50	07/07/22 11:41	
EPA 6010D	Iron	0.22	mg/L	0.050	07/07/22 11:41	
EPA 6010D	Magnesium	124	mg/L	0.50	07/07/22 11:41	
EPA 6010D	Potassium	81.1	mg/L	2.5	07/07/22 11:41	
EPA 6010D	Sodium	1340	mg/L	10.0	07/07/22 12:01	
EPA 6010D	Calcium, Dissolved	54.9	mg/L	0.50	07/07/22 14:19	
EPA 6010D	Iron, Dissolved	0.051	mg/L	0.050	07/07/22 14:19	
EPA 6010D	Magnesium, Dissolved	125	mg/L	0.50	07/07/22 14:19	
EPA 6010D	Potassium, Dissolved	75.6	mg/L	2.5	07/07/22 14:19	
EPA 6010D	Sodium, Dissolved	1460	mg/L	20.0	07/07/22 14:46	
EPA 6020B	Arsenic	0.0019	mg/L	0.00050	07/15/22 15:42	
EPA 6020B	Arsenic, Dissolved	0.0018	mg/L	0.00050	07/15/22 14:26	
SM 2320B-2011	Alkalinity, Total as CaCO3	272	mg/L	5.0	07/05/22 11:49	
SM 2540C-2011	Total Dissolved Solids	5060	mg/L	500	07/01/22 10:53	
SM 4500-S2D-2011	Sulfide	12.7	mg/L	2.5	07/01/22 04:00	
EPA 300.0 Rev 2.1 1993	Sulfate	203	mg/L	50.0	07/01/22 11:04	
SM 4500-Cl-E-2011	Chloride	2870	mg/L	500	07/05/22 14:47	
92612546003	**PT-03**					
EPA 6010D	Calcium	30.1	mg/L	0.50	07/07/22 11:42	
EPA 6010D	Iron	0.24	mg/L	0.050	07/07/22 11:42	
EPA 6010D	Magnesium	80.0	mg/L	0.50	07/07/22 11:42	
EPA 6010D	Potassium	69.4	mg/L	2.5	07/07/22 11:42	
EPA 6010D	Sodium	889	mg/L	10.0	07/07/22 12:03	
EPA 6010D	Calcium, Dissolved	29.2	mg/L	0.50	07/07/22 14:21	
EPA 6010D	Iron, Dissolved	0.044J	mg/L	0.050	07/07/22 14:21	
EPA 6010D	Magnesium, Dissolved	80.9	mg/L	0.50	07/07/22 14:21	
EPA 6010D	Potassium, Dissolved	64.2	mg/L	2.5	07/07/22 14:21	
EPA 6010D	Sodium, Dissolved	1110	mg/L	20.0	07/07/22 14:47	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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SUMMARY OF DETECTION

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92612546003	**PT-03**					
EPA 6020B	Arsenic	0.0011	mg/L	0.00050	07/15/22 16:08	
EPA 6020B	Arsenic, Dissolved	0.0012	mg/L	0.00050	07/15/22 14:52	
SM 2320B-2011	Alkalinity, Total as CaCO3	197	mg/L	5.0	07/05/22 11:58	
SM 2540C-2011	Total Dissolved Solids	3260	mg/L	312	07/01/22 10:53	
SM 4500-S2D-2011	Sulfide	8.2	mg/L	2.5	07/01/22 04:00	
EPA 300.0 Rev 2.1 1993	Sulfate	142	mg/L	20.0	07/01/22 11:20	M1
SM 4500-Cl-E-2011	Chloride	1790	mg/L	500	07/05/22 14:48	
92612546004	**PT-04D**					
EPA 6010D	Calcium	193	mg/L	0.50	07/07/22 11:44	
EPA 6010D	Iron	0.12	mg/L	0.050	07/07/22 11:44	
EPA 6010D	Magnesium	427	mg/L	0.50	07/07/22 11:44	
EPA 6010D	Potassium	183	mg/L	5.0	07/07/22 12:46	
EPA 6010D	Sodium	3360	mg/L	25.0	07/07/22 12:05	
EPA 6010D	Calcium, Dissolved	189	mg/L	0.50	07/07/22 14:22	
EPA 6010D	Iron, Dissolved	0.084	mg/L	0.050	07/07/22 14:22	
EPA 6010D	Magnesium, Dissolved	428	mg/L	0.50	07/07/22 14:22	
EPA 6010D	Potassium, Dissolved	175	mg/L	2.5	07/07/22 14:22	
EPA 6010D	Sodium, Dissolved	3600	mg/L	50.0	07/07/22 15:02	
EPA 6020B	Arsenic	0.0027	mg/L	0.00050	07/15/22 16:12	
EPA 6020B	Arsenic, Dissolved	0.0036	mg/L	0.0025	07/18/22 11:17	
SM 2320B-2011	Alkalinity, Total as CaCO3	451	mg/L	5.0	07/05/22 13:38	
SM 2540C-2011	Total Dissolved Solids	13700	mg/L	2500	07/01/22 10:53	
SM 4500-S2D-2011	Sulfide	18.4	mg/L	2.5	07/01/22 04:00	
EPA 300.0 Rev 2.1 1993	Sulfate	465	mg/L	100	07/01/22 08:20	
SM 4500-Cl-E-2011	Chloride	6670	mg/L	500	07/05/22 14:49	
92612546005	**DR-01**					
EPA 6010D	Calcium	84.1	mg/L	0.50	07/07/22 11:49	
EPA 6010D	Iron	0.12	mg/L	0.050	07/07/22 11:49	
EPA 6010D	Magnesium	184	mg/L	0.50	07/07/22 11:49	
EPA 6010D	Potassium	97.9	mg/L	2.5	07/07/22 11:49	
EPA 6010D	Sodium	1800	mg/L	25.0	07/07/22 12:07	
EPA 6010D	Calcium, Dissolved	79.5	mg/L	0.50	07/07/22 14:24	
EPA 6010D	Iron, Dissolved	0.069	mg/L	0.050	07/07/22 14:24	
EPA 6010D	Magnesium, Dissolved	178	mg/L	0.50	07/07/22 14:24	
EPA 6010D	Potassium, Dissolved	88.0	mg/L	2.5	07/07/22 14:24	
EPA 6010D	Sodium, Dissolved	2070	mg/L	20.0	07/07/22 14:54	
EPA 6020B	Arsenic	0.077	mg/L	0.00050	07/15/22 16:15	
EPA 6020B	Arsenic, Dissolved	0.083	mg/L	0.00050	07/15/22 14:59	
SM 2320B-2011	Alkalinity, Total as CaCO3	271	mg/L	5.0	07/05/22 12:14	
SM 2540C-2011	Total Dissolved Solids	6280	mg/L	500	07/01/22 10:53	
SM 4500-S2D-2011	Sulfide	17.4	mg/L	2.5	07/01/22 04:01	
EPA 300.0 Rev 2.1 1993	Sulfate	238	mg/L	100	07/01/22 08:36	
SM 4500-Cl-E-2011	Chloride	2470	mg/L	500	07/05/22 14:50	
92612546006	**DR-02**					
EPA 6010D	Calcium	107	mg/L	0.50	07/07/22 11:51	
EPA 6010D	Iron	0.21	mg/L	0.050	07/07/22 11:51	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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SUMMARY OF DETECTION

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92612546006	**DR-02**					
EPA 6010D	Magnesium	253	mg/L	0.50	07/07/22 11:51	
EPA 6010D	Potassium	136	mg/L	2.5	07/07/22 11:51	
EPA 6010D	Sodium	2360	mg/L	25.0	07/07/22 12:49	
EPA 6010D	Calcium, Dissolved	106	mg/L	0.50	07/07/22 14:26	
EPA 6010D	Iron, Dissolved	0.13	mg/L	0.050	07/07/22 14:26	
EPA 6010D	Magnesium, Dissolved	258	mg/L	0.50	07/07/22 14:26	
EPA 6010D	Potassium, Dissolved	126	mg/L	2.5	07/07/22 14:26	
EPA 6010D	Sodium, Dissolved	2930	mg/L	20.0	07/07/22 14:56	
EPA 6020B	Arsenic	0.0078	mg/L	0.00050	07/15/22 16:19	
EPA 6020B	Arsenic, Dissolved	0.0075	mg/L	0.00050	07/15/22 15:03	
SM 2320B-2011	Alkalinity, Total as CaCO3	354	mg/L	5.0	07/05/22 12:23	
SM 2540C-2011	Total Dissolved Solids	8220	mg/L	625	07/01/22 10:54	
SM 4500-S2D-2011	Sulfide	23.0	mg/L	2.5	07/01/22 04:01	
EPA 300.0 Rev 2.1 1993	Sulfate	299	mg/L	100	07/01/22 08:51	
SM 4500-Cl-E-2011	Chloride	4540	mg/L	500	07/05/22 14:51	
92612546007	**MCM-06**					
EPA 6010D	Calcium	73.5	mg/L	0.50	07/07/22 11:53	
EPA 6010D	Iron	0.11	mg/L	0.050	07/07/22 11:53	
EPA 6010D	Magnesium	154	mg/L	0.50	07/07/22 11:53	
EPA 6010D	Potassium	94.0	mg/L	2.5	07/07/22 11:53	
EPA 6010D	Sodium	1720	mg/L	25.0	07/07/22 12:51	
EPA 6010D	Calcium, Dissolved	69.6	mg/L	0.50	07/07/22 14:27	
EPA 6010D	Magnesium, Dissolved	151	mg/L	0.50	07/07/22 14:27	
EPA 6010D	Potassium, Dissolved	83.0	mg/L	2.5	07/07/22 14:27	
EPA 6010D	Sodium, Dissolved	2160	mg/L	20.0	07/07/22 14:57	
EPA 6020B	Arsenic	0.17	mg/L	0.00050	07/15/22 16:23	
EPA 6020B	Arsenic, Dissolved	0.20	mg/L	0.00050	07/15/22 15:06	
SM 2320B-2011	Alkalinity, Total as CaCO3	286	mg/L	5.0	07/05/22 12:34	
SM 2540C-2011	Total Dissolved Solids	6140	mg/L	500	07/01/22 10:54	
SM 4500-S2D-2011	Sulfide	23.3	mg/L	2.5	07/01/22 04:01	
EPA 300.0 Rev 2.1 1993	Sulfate	213	mg/L	100	07/01/22 09:07	
SM 4500-Cl-E-2011	Chloride	3520	mg/L	500	07/05/22 14:52	
92612546008	**DPZ-02**					
EPA 6010D	Calcium	225	mg/L	0.50	07/07/22 11:54	
EPA 6010D	Iron	0.022J	mg/L	0.050	07/07/22 11:54	
EPA 6010D	Magnesium	471	mg/L	0.50	07/07/22 11:54	
EPA 6010D	Potassium	184	mg/L	5.0	07/07/22 12:48	
EPA 6010D	Sodium	3610	mg/L	25.0	07/07/22 12:53	
EPA 6010D	Calcium, Dissolved	233	mg/L	0.50	07/07/22 14:29	
EPA 6010D	Magnesium, Dissolved	503	mg/L	0.50	07/07/22 14:29	
EPA 6010D	Potassium, Dissolved	182	mg/L	5.0	07/11/22 15:35	
EPA 6010D	Sodium, Dissolved	4370	mg/L	50.0	07/07/22 15:04	
EPA 6020B	Arsenic	0.025	mg/L	0.0025	07/18/22 11:25	
EPA 6020B	Arsenic, Dissolved	0.032	mg/L	0.0025	07/18/22 11:21	
SM 2320B-2011	Alkalinity, Total as CaCO3	394	mg/L	5.0	07/05/22 12:44	
SM 2540C-2011	Total Dissolved Solids	15400	mg/L	2500	07/01/22 10:54	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92612546008	**DPZ-02**					
SM 4500-S2D-2011	Sulfide	24.3	mg/L	2.5	07/01/22 04:02	
EPA 300.0 Rev 2.1 1993	Sulfate	553	mg/L	100	07/01/22 12:07	
SM 4500-Cl-E-2011	Chloride	9640	mg/L	500	07/05/22 14:53	
92612546009	**DUP-1**					
EPA 6010D	Calcium	32.2	mg/L	0.50	07/07/22 11:56	
EPA 6010D	Iron	0.25	mg/L	0.050	07/07/22 11:56	
EPA 6010D	Magnesium	83.5	mg/L	0.50	07/07/22 11:56	
EPA 6010D	Potassium	72.7	mg/L	2.5	07/07/22 11:56	
EPA 6010D	Sodium	926	mg/L	10.0	07/07/22 12:54	
EPA 6010D	Calcium, Dissolved	29.3	mg/L	0.50	07/07/22 14:34	
EPA 6010D	Iron, Dissolved	0.046J	mg/L	0.050	07/07/22 14:34	
EPA 6010D	Magnesium, Dissolved	80.4	mg/L	0.50	07/07/22 14:34	
EPA 6010D	Potassium, Dissolved	63.6	mg/L	2.5	07/07/22 14:34	
EPA 6010D	Sodium, Dissolved	1070	mg/L	20.0	07/07/22 15:01	
EPA 6020B	Arsenic	0.0011	mg/L	0.00050	07/15/22 16:30	
EPA 6020B	Arsenic, Dissolved	0.0014	mg/L	0.00050	07/15/22 15:14	
SM 2320B-2011	Alkalinity, Total as CaCO3	192	mg/L	5.0	07/05/22 13:05	
SM 2540C-2011	Total Dissolved Solids	3340	mg/L	357	07/01/22 10:54	
SM 4500-S2D-2011	Sulfide	8.2	mg/L	2.5	07/01/22 04:02	
EPA 300.0 Rev 2.1 1993	Sulfate	142	mg/L	20.0	07/01/22 12:22	
SM 4500-Cl-E-2011	Chloride	1390	mg/L	500	07/05/22 14:54	
92612546010	**FB-1**					
EPA 6010D	Potassium, Dissolved	0.34J	mg/L	2.5	07/07/22 14:36	
EPA 6010D	Sodium, Dissolved	0.70J	mg/L	1.0	07/07/22 14:36	
EPA 6020B	Arsenic	0.00013J	mg/L	0.00050	07/15/22 16:34	
EPA 6020B	Arsenic, Dissolved	0.00010J	mg/L	0.00050	07/15/22 15:17	
SM 4500-Cl-E-2011	Chloride	0.86J	mg/L	1.0	07/05/22 14:54	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

Sample: PT-01 **Lab ID: 92612546001** Collected: 06/28/22 15:55 Received: 06/30/22 11:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**81.1**	mg/L	0.50	0.097	1	07/06/22 06:48	07/07/22 11:32	7440-70-2	
Iron	**0.22**	mg/L	0.050	0.022	1	07/06/22 06:48	07/07/22 11:32	7439-89-6	
Magnesium	**179**	mg/L	0.50	0.029	1	07/06/22 06:48	07/07/22 11:32	7439-95-4	
Potassium	**101**	mg/L	2.5	0.22	1	07/06/22 06:48	07/07/22 11:32	7440-09-7	
Sodium	**1800**	mg/L	25.0	5.4	25	07/06/22 06:48	07/07/22 12:34	7440-23-5	P6
6010D MET ICP, Lab Filtered	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium, Dissolved	**75.9**	mg/L	0.50	0.097	1	07/07/22 05:20	07/07/22 13:49	7440-70-2	
Iron, Dissolved	**0.062**	mg/L	0.050	0.022	1	07/07/22 05:20	07/07/22 13:49	7439-89-6	
Magnesium, Dissolved	**174**	mg/L	0.50	0.029	1	07/07/22 05:20	07/07/22 13:49	7439-95-4	P6
Potassium, Dissolved	**89.3**	mg/L	2.5	0.22	1	07/07/22 05:20	07/07/22 13:49	7440-09-7	P6
Sodium, Dissolved	**2100**	mg/L	20.0	4.4	20	07/07/22 05:20	07/07/22 14:37	7440-23-5	P6
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Arsenic	**0.026**	mg/L	0.00050	0.000083	1	07/06/22 06:20	07/15/22 15:39	7440-38-2	
6020B MET ICPMS, Lab Filtered	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**0.028**	mg/L	0.00050	0.000083	1	07/07/22 05:39	07/15/22 14:22	7440-38-2	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity, Total as CaCO3	**290**	mg/L	5.0	5.0	1		07/05/22 11:39		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Asheville								
Total Dissolved Solids	**6820**	mg/L	500	500	1		07/01/22 10:53		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	**18.7**	mg/L	2.5	1.2	25		07/01/22 03:59	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	**269**	mg/L	50.0	25.0	50		07/01/22 10:48	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E-2011 Pace Analytical Services - Asheville								
Chloride	**3950**	mg/L	500	250	500		07/05/22 14:44	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

Sample: PT-02 **Lab ID: 92612546002** Collected: 06/28/22 10:00 Received: 06/30/22 11:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**56.7**	mg/L	0.50	0.097	1	07/06/22 06:48	07/07/22 11:41	7440-70-2	
Iron	**0.22**	mg/L	0.050	0.022	1	07/06/22 06:48	07/07/22 11:41	7439-89-6	
Magnesium	**124**	mg/L	0.50	0.029	1	07/06/22 06:48	07/07/22 11:41	7439-95-4	
Potassium	**81.1**	mg/L	2.5	0.22	1	07/06/22 06:48	07/07/22 11:41	7440-09-7	
Sodium	**1340**	mg/L	10.0	2.2	10	07/06/22 06:48	07/07/22 12:01	7440-23-5	
6010D MET ICP, Lab Filtered	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium, Dissolved	**54.9**	mg/L	0.50	0.097	1	07/07/22 05:20	07/07/22 14:19	7440-70-2	
Iron, Dissolved	**0.051**	mg/L	0.050	0.022	1	07/07/22 05:20	07/07/22 14:19	7439-89-6	
Magnesium, Dissolved	**125**	mg/L	0.50	0.029	1	07/07/22 05:20	07/07/22 14:19	7439-95-4	
Potassium, Dissolved	**75.6**	mg/L	2.5	0.22	1	07/07/22 05:20	07/07/22 14:19	7440-09-7	
Sodium, Dissolved	**1460**	mg/L	20.0	4.4	20	07/07/22 05:20	07/07/22 14:46	7440-23-5	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Arsenic	**0.0019**	mg/L	0.00050	0.000083	1	07/06/22 06:20	07/15/22 15:42	7440-38-2	
6020B MET ICPMS, Lab Filtered	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**0.0018**	mg/L	0.00050	0.000083	1	07/07/22 05:39	07/15/22 14:26	7440-38-2	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity, Total as CaCO3	**272**	mg/L	5.0	5.0	1		07/05/22 11:49		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Asheville								
Total Dissolved Solids	**5060**	mg/L	500	500	1		07/01/22 10:53		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	**12.7**	mg/L	2.5	1.2	25		07/01/22 04:00	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	**203**	mg/L	50.0	25.0	50		07/01/22 11:04	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E-2011 Pace Analytical Services - Asheville								
Chloride	**2870**	mg/L	500	250	500		07/05/22 14:47	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

Sample: PT-03 **Lab ID: 92612546003** Collected: 06/28/22 14:50 Received: 06/30/22 11:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**30.1**	mg/L	0.50	0.097	1	07/06/22 06:48	07/07/22 11:42	7440-70-2	
Iron	**0.24**	mg/L	0.050	0.022	1	07/06/22 06:48	07/07/22 11:42	7439-89-6	
Magnesium	**80.0**	mg/L	0.50	0.029	1	07/06/22 06:48	07/07/22 11:42	7439-95-4	
Potassium	**69.4**	mg/L	2.5	0.22	1	07/06/22 06:48	07/07/22 11:42	7440-09-7	
Sodium	**889**	mg/L	10.0	2.2	10	07/06/22 06:48	07/07/22 12:03	7440-23-5	
6010D MET ICP, Lab Filtered	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium, Dissolved	**29.2**	mg/L	0.50	0.097	1	07/07/22 05:20	07/07/22 14:21	7440-70-2	
Iron, Dissolved	**0.044J**	mg/L	0.050	0.022	1	07/07/22 05:20	07/07/22 14:21	7439-89-6	
Magnesium, Dissolved	**80.9**	mg/L	0.50	0.029	1	07/07/22 05:20	07/07/22 14:21	7439-95-4	
Potassium, Dissolved	**64.2**	mg/L	2.5	0.22	1	07/07/22 05:20	07/07/22 14:21	7440-09-7	
Sodium, Dissolved	**1110**	mg/L	20.0	4.4	20	07/07/22 05:20	07/07/22 14:47	7440-23-5	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Arsenic	**0.0011**	mg/L	0.00050	0.000083	1	07/06/22 06:20	07/15/22 16:08	7440-38-2	
6020B MET ICPMS, Lab Filtered	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**0.0012**	mg/L	0.00050	0.000083	1	07/07/22 05:39	07/15/22 14:52	7440-38-2	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity, Total as CaCO3	**197**	mg/L	5.0	5.0	1		07/05/22 11:58		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Asheville								
Total Dissolved Solids	**3260**	mg/L	312	312	1		07/01/22 10:53		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	**8.2**	mg/L	2.5	1.2	25		07/01/22 04:00	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	**142**	mg/L	20.0	10.0	20		07/01/22 11:20	14808-79-8	M1
4500 Chloride	Analytical Method: SM 4500-Cl-E-2011 Pace Analytical Services - Asheville								
Chloride	**1790**	mg/L	500	250	500		07/05/22 14:48	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

Sample: PT-04D **Lab ID: 92612546004** Collected: 06/28/22 14:20 Received: 06/30/22 11:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**193**	mg/L	0.50	0.097	1	07/06/22 06:48	07/07/22 11:44	7440-70-2	
Iron	**0.12**	mg/L	0.050	0.022	1	07/06/22 06:48	07/07/22 11:44	7439-89-6	
Magnesium	**427**	mg/L	0.50	0.029	1	07/06/22 06:48	07/07/22 11:44	7439-95-4	
Potassium	**183**	mg/L	5.0	0.43	2	07/06/22 06:48	07/07/22 12:46	7440-09-7	
Sodium	**3360**	mg/L	25.0	5.4	25	07/06/22 06:48	07/07/22 12:05	7440-23-5	
6010D MET ICP, Lab Filtered	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium, Dissolved	**189**	mg/L	0.50	0.097	1	07/07/22 05:20	07/07/22 14:22	7440-70-2	
Iron, Dissolved	**0.084**	mg/L	0.050	0.022	1	07/07/22 05:20	07/07/22 14:22	7439-89-6	
Magnesium, Dissolved	**428**	mg/L	0.50	0.029	1	07/07/22 05:20	07/07/22 14:22	7439-95-4	
Potassium, Dissolved	**175**	mg/L	2.5	0.22	1	07/07/22 05:20	07/07/22 14:22	7440-09-7	
Sodium, Dissolved	**3600**	mg/L	50.0	10.9	50	07/07/22 05:20	07/07/22 15:02	7440-23-5	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Arsenic	**0.0027**	mg/L	0.00050	0.000083	1	07/06/22 06:20	07/15/22 16:12	7440-38-2	
6020B MET ICPMS, Lab Filtered	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**0.0036**	mg/L	0.0025	0.00041	5	07/07/22 05:39	07/18/22 11:17	7440-38-2	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity, Total as CaCO3	**451**	mg/L	5.0	5.0	1		07/05/22 13:38		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Asheville								
Total Dissolved Solids	**13700**	mg/L	2500	2500	1		07/01/22 10:53		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	**18.4**	mg/L	2.5	1.2	25		07/01/22 04:00	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	**465**	mg/L	100	50.0	100		07/01/22 08:20	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E-2011 Pace Analytical Services - Asheville								
Chloride	**6670**	mg/L	500	250	500		07/05/22 14:49	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

Sample: DR-01 **Lab ID: 92612546005** Collected: 06/28/22 14:52 Received: 06/30/22 11:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**84.1**	mg/L	0.50	0.097	1	07/06/22 06:48	07/07/22 11:49	7440-70-2	
Iron	**0.12**	mg/L	0.050	0.022	1	07/06/22 06:48	07/07/22 11:49	7439-89-6	
Magnesium	**184**	mg/L	0.50	0.029	1	07/06/22 06:48	07/07/22 11:49	7439-95-4	
Potassium	**97.9**	mg/L	2.5	0.22	1	07/06/22 06:48	07/07/22 11:49	7440-09-7	
Sodium	**1800**	mg/L	25.0	5.4	25	07/06/22 06:48	07/07/22 12:07	7440-23-5	
6010D MET ICP, Lab Filtered	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium, Dissolved	**79.5**	mg/L	0.50	0.097	1	07/07/22 05:20	07/07/22 14:24	7440-70-2	
Iron, Dissolved	**0.069**	mg/L	0.050	0.022	1	07/07/22 05:20	07/07/22 14:24	7439-89-6	
Magnesium, Dissolved	**178**	mg/L	0.50	0.029	1	07/07/22 05:20	07/07/22 14:24	7439-95-4	
Potassium, Dissolved	**88.0**	mg/L	2.5	0.22	1	07/07/22 05:20	07/07/22 14:24	7440-09-7	
Sodium, Dissolved	**2070**	mg/L	20.0	4.4	20	07/07/22 05:20	07/07/22 14:54	7440-23-5	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Arsenic	**0.077**	mg/L	0.00050	0.000083	1	07/06/22 06:20	07/15/22 16:15	7440-38-2	
6020B MET ICPMS, Lab Filtered	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**0.083**	mg/L	0.00050	0.000083	1	07/07/22 05:39	07/15/22 14:59	7440-38-2	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity, Total as CaCO3	**271**	mg/L	5.0	5.0	1		07/05/22 12:14		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Asheville								
Total Dissolved Solids	**6280**	mg/L	500	500	1		07/01/22 10:53		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	**17.4**	mg/L	2.5	1.2	25		07/01/22 04:01	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	**238**	mg/L	100	50.0	100		07/01/22 08:36	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E-2011 Pace Analytical Services - Asheville								
Chloride	**2470**	mg/L	500	250	500		07/05/22 14:50	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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ANALYTICAL RESULTS

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

Sample: DR-02 **Lab ID: 92612546006** Collected: 06/28/22 16:05 Received: 06/30/22 11:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**107**	mg/L	0.50	0.097	1	07/06/22 06:48	07/07/22 11:51	7440-70-2	
Iron	**0.21**	mg/L	0.050	0.022	1	07/06/22 06:48	07/07/22 11:51	7439-89-6	
Magnesium	**253**	mg/L	0.50	0.029	1	07/06/22 06:48	07/07/22 11:51	7439-95-4	
Potassium	**136**	mg/L	2.5	0.22	1	07/06/22 06:48	07/07/22 11:51	7440-09-7	
Sodium	**2360**	mg/L	25.0	5.4	25	07/06/22 06:48	07/07/22 12:49	7440-23-5	
6010D MET ICP, Lab Filtered	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium, Dissolved	**106**	mg/L	0.50	0.097	1	07/07/22 05:20	07/07/22 14:26	7440-70-2	
Iron, Dissolved	**0.13**	mg/L	0.050	0.022	1	07/07/22 05:20	07/07/22 14:26	7439-89-6	
Magnesium, Dissolved	**258**	mg/L	0.50	0.029	1	07/07/22 05:20	07/07/22 14:26	7439-95-4	
Potassium, Dissolved	**126**	mg/L	2.5	0.22	1	07/07/22 05:20	07/07/22 14:26	7440-09-7	
Sodium, Dissolved	**2930**	mg/L	20.0	4.4	20	07/07/22 05:20	07/07/22 14:56	7440-23-5	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Arsenic	**0.0078**	mg/L	0.00050	0.000083	1	07/06/22 06:20	07/15/22 16:19	7440-38-2	
6020B MET ICPMS, Lab Filtered	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**0.0075**	mg/L	0.00050	0.000083	1	07/07/22 05:39	07/15/22 15:03	7440-38-2	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity, Total as CaCO3	**354**	mg/L	5.0	5.0	1		07/05/22 12:23		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Asheville								
Total Dissolved Solids	**8220**	mg/L	625	625	1		07/01/22 10:54		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	**23.0**	mg/L	2.5	1.2	25		07/01/22 04:01	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	**299**	mg/L	100	50.0	100		07/01/22 08:51	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E-2011 Pace Analytical Services - Asheville								
Chloride	**4540**	mg/L	500	250	500		07/05/22 14:51	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

Sample: MCM-06 **Lab ID: 92612546007** Collected: 06/28/22 16:00 Received: 06/30/22 11:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**73.5**	mg/L	0.50	0.097	1	07/06/22 06:48	07/07/22 11:53	7440-70-2	
Iron	**0.11**	mg/L	0.050	0.022	1	07/06/22 06:48	07/07/22 11:53	7439-89-6	
Magnesium	**154**	mg/L	0.50	0.029	1	07/06/22 06:48	07/07/22 11:53	7439-95-4	
Potassium	**94.0**	mg/L	2.5	0.22	1	07/06/22 06:48	07/07/22 11:53	7440-09-7	
Sodium	**1720**	mg/L	25.0	5.4	25	07/06/22 06:48	07/07/22 12:51	7440-23-5	
6010D MET ICP, Lab Filtered	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium, Dissolved	**69.6**	mg/L	0.50	0.097	1	07/07/22 05:20	07/07/22 14:27	7440-70-2	
Iron, Dissolved	ND	mg/L	0.050	0.022	1	07/07/22 05:20	07/07/22 14:27	7439-89-6	
Magnesium, Dissolved	**151**	mg/L	0.50	0.029	1	07/07/22 05:20	07/07/22 14:27	7439-95-4	
Potassium, Dissolved	**83.0**	mg/L	2.5	0.22	1	07/07/22 05:20	07/07/22 14:27	7440-09-7	
Sodium, Dissolved	**2160**	mg/L	20.0	4.4	20	07/07/22 05:20	07/07/22 14:57	7440-23-5	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Arsenic	**0.17**	mg/L	0.00050	0.000083	1	07/06/22 06:20	07/15/22 16:23	7440-38-2	
6020B MET ICPMS, Lab Filtered	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**0.20**	mg/L	0.00050	0.000083	1	07/07/22 05:39	07/15/22 15:06	7440-38-2	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity, Total as CaCO3	**286**	mg/L	5.0	5.0	1		07/05/22 12:34		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Asheville								
Total Dissolved Solids	**6140**	mg/L	500	500	1		07/01/22 10:54		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	**23.3**	mg/L	2.5	1.2	25		07/01/22 04:01	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	**213**	mg/L	100	50.0	100		07/01/22 09:07	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E-2011 Pace Analytical Services - Asheville								
Chloride	**3520**	mg/L	500	250	500		07/05/22 14:52	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

Sample: DPZ-02 **Lab ID: 92612546008** Collected: 06/28/22 11:45 Received: 06/30/22 11:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**225**	mg/L	0.50	0.097	1	07/06/22 06:48	07/07/22 11:54	7440-70-2	
Iron	**0.022J**	mg/L	0.050	0.022	1	07/06/22 06:48	07/07/22 11:54	7439-89-6	
Magnesium	**471**	mg/L	0.50	0.029	1	07/06/22 06:48	07/07/22 11:54	7439-95-4	
Potassium	**184**	mg/L	5.0	0.43	2	07/06/22 06:48	07/07/22 12:48	7440-09-7	
Sodium	**3610**	mg/L	25.0	5.4	25	07/06/22 06:48	07/07/22 12:53	7440-23-5	
6010D MET ICP, Lab Filtered	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium, Dissolved	**233**	mg/L	0.50	0.097	1	07/07/22 05:20	07/07/22 14:29	7440-70-2	
Iron, Dissolved	ND	mg/L	0.050	0.022	1	07/07/22 05:20	07/07/22 14:29	7439-89-6	
Magnesium, Dissolved	**503**	mg/L	0.50	0.029	1	07/07/22 05:20	07/07/22 14:29	7439-95-4	
Potassium, Dissolved	**182**	mg/L	5.0	0.43	2	07/07/22 05:20	07/11/22 15:35	7440-09-7	
Sodium, Dissolved	**4370**	mg/L	50.0	10.9	50	07/07/22 05:20	07/07/22 15:04	7440-23-5	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Arsenic	**0.025**	mg/L	0.0025	0.00041	5	07/06/22 06:20	07/18/22 11:25	7440-38-2	
6020B MET ICPMS, Lab Filtered	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**0.032**	mg/L	0.0025	0.00041	5	07/07/22 05:39	07/18/22 11:21	7440-38-2	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity, Total as CaCO3	**394**	mg/L	5.0	5.0	1		07/05/22 12:44		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Asheville								
Total Dissolved Solids	**15400**	mg/L	2500	2500	1		07/01/22 10:54		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	**24.3**	mg/L	2.5	1.2	25		07/01/22 04:02	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	**553**	mg/L	100	50.0	100		07/01/22 12:07	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E-2011 Pace Analytical Services - Asheville								
Chloride	**9640**	mg/L	500	250	500		07/05/22 14:53	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

Sample: DUP-1 **Lab ID: 92612546009** Collected: 06/28/22 00:00 Received: 06/30/22 11:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**32.2**	mg/L	0.50	0.097	1	07/06/22 06:48	07/07/22 11:56	7440-70-2	
Iron	**0.25**	mg/L	0.050	0.022	1	07/06/22 06:48	07/07/22 11:56	7439-89-6	
Magnesium	**83.5**	mg/L	0.50	0.029	1	07/06/22 06:48	07/07/22 11:56	7439-95-4	
Potassium	**72.7**	mg/L	2.5	0.22	1	07/06/22 06:48	07/07/22 11:56	7440-09-7	
Sodium	**926**	mg/L	10.0	2.2	10	07/06/22 06:48	07/07/22 12:54	7440-23-5	
6010D MET ICP, Lab Filtered	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium, Dissolved	**29.3**	mg/L	0.50	0.097	1	07/07/22 05:20	07/07/22 14:34	7440-70-2	
Iron, Dissolved	**0.046J**	mg/L	0.050	0.022	1	07/07/22 05:20	07/07/22 14:34	7439-89-6	
Magnesium, Dissolved	**80.4**	mg/L	0.50	0.029	1	07/07/22 05:20	07/07/22 14:34	7439-95-4	
Potassium, Dissolved	**63.6**	mg/L	2.5	0.22	1	07/07/22 05:20	07/07/22 14:34	7440-09-7	
Sodium, Dissolved	**1070**	mg/L	20.0	4.4	20	07/07/22 05:20	07/07/22 15:01	7440-23-5	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Arsenic	**0.0011**	mg/L	0.00050	0.000083	1	07/06/22 06:20	07/15/22 16:30	7440-38-2	
6020B MET ICPMS, Lab Filtered	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**0.0014**	mg/L	0.00050	0.000083	1	07/07/22 05:39	07/15/22 15:14	7440-38-2	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity, Total as CaCO3	**192**	mg/L	5.0	5.0	1		07/05/22 13:05		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Asheville								
Total Dissolved Solids	**3340**	mg/L	357	357	1		07/01/22 10:54		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	**8.2**	mg/L	2.5	1.2	25		07/01/22 04:02	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	**142**	mg/L	20.0	10.0	20		07/01/22 12:22	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E-2011 Pace Analytical Services - Asheville								
Chloride	**1390**	mg/L	500	250	500		07/05/22 14:54	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

Sample: FB-1 **Lab ID: 92612546010** Collected: 06/28/22 10:40 Received: 06/30/22 11:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	ND	mg/L	0.50	0.097	1	07/06/22 06:48	07/07/22 12:14	7440-70-2	
Iron	ND	mg/L	0.050	0.022	1	07/06/22 06:48	07/07/22 12:14	7439-89-6	
Magnesium	ND	mg/L	0.50	0.029	1	07/06/22 06:48	07/07/22 12:14	7439-95-4	
Potassium	ND	mg/L	2.5	0.22	1	07/06/22 06:48	07/07/22 12:14	7440-09-7	
Sodium	ND	mg/L	1.0	0.22	1	07/06/22 06:48	07/07/22 12:14	7440-23-5	
6010D MET ICP, Lab Filtered	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium, Dissolved	ND	mg/L	0.50	0.097	1	07/07/22 05:20	07/07/22 14:36	7440-70-2	
Iron, Dissolved	ND	mg/L	0.050	0.022	1	07/07/22 05:20	07/07/22 14:36	7439-89-6	
Magnesium, Dissolved	ND	mg/L	0.50	0.029	1	07/07/22 05:20	07/07/22 14:36	7439-95-4	
Potassium, Dissolved	**0.34J**	mg/L	2.5	0.22	1	07/07/22 05:20	07/07/22 14:36	7440-09-7	
Sodium, Dissolved	**0.70J**	mg/L	1.0	0.22	1	07/07/22 05:20	07/07/22 14:36	7440-23-5	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Arsenic	**0.00013J**	mg/L	0.00050	0.000083	1	07/06/22 06:20	07/15/22 16:34	7440-38-2	
6020B MET ICPMS, Lab Filtered	Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**0.00010J**	mg/L	0.00050	0.000083	1	07/07/22 05:39	07/15/22 15:17	7440-38-2	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity, Total as CaCO3	ND	mg/L	5.0	5.0	1		07/02/22 20:53		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Asheville								
Total Dissolved Solids	ND	mg/L	25.0	25.0	1		07/04/22 11:06		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		07/01/22 04:03	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	ND	mg/L	1.0	0.50	1		07/01/22 04:08	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E-2011 Pace Analytical Services - Asheville								
Chloride	**0.86J**	mg/L	1.0	0.50	1		07/05/22 14:54	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

QC Batch: 825861
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D Water
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010

METHOD BLANK: 4374763 Matrix: Water
Associated Lab Samples: 92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	0.50	0.097	07/07/22 11:29	
Iron	mg/L	ND	0.050	0.022	07/07/22 11:29	
Magnesium	mg/L	ND	0.50	0.029	07/07/22 11:29	
Potassium	mg/L	ND	2.5	0.22	07/07/22 11:29	
Sodium	mg/L	ND	1.0	0.22	07/07/22 11:29	

LABORATORY CONTROL SAMPLE: 4374764

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	20	19.3	96	80-120	
Iron	mg/L	20	19.7	98	80-120	
Magnesium	mg/L	20	19.5	98	80-120	
Potassium	mg/L	20	19.6	98	80-120	
Sodium	mg/L	20	19.2	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4374765 4374766

Parameter	Units	92612546001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	81.1	20	20	97.0	99.3	79	91	75-125	2	20	
Iron	mg/L	0.22	20	20	19.6	19.9	97	99	75-125	2	20	
Magnesium	mg/L	179	20	20	196	200	84	101	75-125	2	20	
Potassium	mg/L	101	20	20	122	125	103	119	75-125	3	20	
Sodium	mg/L	1800	20	20	1850	1850	221	223	75-125	0	20	P6

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

QC Batch: 826173
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D Water Dissolved
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010

METHOD BLANK: 4376218 Matrix: Water
Associated Lab Samples: 92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium, Dissolved	mg/L	ND	0.50	0.097	07/07/22 13:44	
Iron, Dissolved	mg/L	ND	0.050	0.022	07/07/22 13:44	
Magnesium, Dissolved	mg/L	ND	0.50	0.029	07/07/22 13:44	
Potassium, Dissolved	mg/L	ND	2.5	0.22	07/07/22 13:44	
Sodium, Dissolved	mg/L	ND	1.0	0.22	07/07/22 13:44	

LABORATORY CONTROL SAMPLE: 4376219

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium, Dissolved	mg/L	20	17.8	89	80-120	
Iron, Dissolved	mg/L	20	18.5	92	80-120	
Magnesium, Dissolved	mg/L	20	18.0	90	80-120	
Potassium, Dissolved	mg/L	20	18.5	93	80-120	
Sodium, Dissolved	mg/L	20	18.1	90	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4376220 4376221

Parameter	Units	92612546001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium, Dissolved	mg/L	75.9	20	20	98.9	97.5	115	108	75-125	1	20	
Iron, Dissolved	mg/L	0.062	20	20	19.2	19.5	96	97	75-125	1	20	
Magnesium, Dissolved	mg/L	174	20	20	205	202	158	139	75-125	2	20	P6
Potassium, Dissolved	mg/L	89.3	20	20	118	116	144	134	75-125	2	20	P6
Sodium, Dissolved	mg/L	2100	20	20	2290	2310	927	1060	75-125	1	20	P6

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

QC Batch: 825866
QC Batch Method: EPA 3020A
Analysis Method: EPA 6020B
Analysis Description: 6020B Water UPD5
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010

METHOD BLANK: 4374788 Matrix: Water
Associated Lab Samples: 92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.00050	0.000083	07/15/22 15:32	

LABORATORY CONTROL SAMPLE: 4374789

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.1	0.10	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4374790 4374791

Parameter	Units	92612546002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	0.0019	0.1	0.1	0.11	0.11	109	105	75-125	4	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

QC Batch: 826179
QC Batch Method: EPA 3020A
Analysis Method: EPA 6020B
Analysis Description: 6020B Water Dissolved UPD5
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010

METHOD BLANK: 4376245 Matrix: Water
Associated Lab Samples: 92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic, Dissolved	mg/L	ND	0.00050	0.000083	07/15/22 14:15	

LABORATORY CONTROL SAMPLE: 4376246

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4376247 4376248

Parameter	Units	92612546002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic, Dissolved	mg/L	0.0018	0.1	0.1	0.10	0.11	101	104	75-125	3	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

QC Batch: 708484
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92612546001, 92612546002

METHOD BLANK: 3695062 Matrix: Water
Associated Lab Samples: 92612546001, 92612546002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	07/02/22 16:05	

LABORATORY CONTROL SAMPLE: 3695063

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.3	105	80-120	

LABORATORY CONTROL SAMPLE: 3695064

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.8	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3695065 3695066

Parameter	Units	92612726001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	ND	50	50	52.7	52.1	105	104	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3695067 3695068

Parameter	Units	92612726011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	ND	50	50	53.4	53.0	105	104	80-120	1	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

QC Batch: 708485
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010

METHOD BLANK: 3695069 Matrix: Water
Associated Lab Samples: 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	07/02/22 19:14	

LABORATORY CONTROL SAMPLE: 3695070

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.6	101	80-120	

LABORATORY CONTROL SAMPLE: 3695071

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.8	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3695072 3695073

Parameter	Units	92612546003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	197	50	50	255	256	117	119	80-120	0	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3695074 3695075

Parameter	Units	92612809002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	128000 ug/L	50	50	138	137	20	17	80-120	1	25	M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

QC Batch: 708223 | Analysis Method: SM 2540C-2011
QC Batch Method: SM 2540C-2011 | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009

METHOD BLANK: 3693528 Matrix: Water
Associated Lab Samples: 92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	07/01/22 10:52	

LABORATORY CONTROL SAMPLE: 3693529

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	246	98	90-110	

SAMPLE DUPLICATE: 3693530

Parameter	Units	92611876001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	81.0	81.0	0	25	

SAMPLE DUPLICATE: 3693531

Parameter	Units	92612546007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	6140	6080	1	25	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

QC Batch: 708545
QC Batch Method: SM 2540C-2011
Analysis Method: SM 2540C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92612546010

METHOD BLANK: 3695257 Matrix: Water
Associated Lab Samples: 92612546010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	07/04/22 11:06	

LABORATORY CONTROL SAMPLE: 3695258

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	258	103	90-110	

SAMPLE DUPLICATE: 3695259

Parameter	Units	92612546010 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		25	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

QC Batch: 708171
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010

METHOD BLANK: 3693375 Matrix: Water
Associated Lab Samples: 92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.050	07/01/22 03:55	

LABORATORY CONTROL SAMPLE: 3693376

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.51	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3693377 3693378

Parameter	Units	92612399003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.52	0.54	102	105	80-120	3	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3693379 3693380

Parameter	Units	92612399002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.51	0.52	99	102	80-120	3	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

QUALITY CONTROL DATA

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

QC Batch: 708118
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010

METHOD BLANK: 3693181 Matrix: Water
Associated Lab Samples: 92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfate	mg/L	ND	1.0	0.50	06/30/22 20:58	

LABORATORY CONTROL SAMPLE: 3693182

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	50	52.0	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3693183 3693184

Parameter	Units	92610803001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	175	50	50	213	211	77	72	90-110	1	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3693185 3693186

Parameter	Units	92612546003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	142	50	50	177	178	71	72	90-110	0	10	M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

QC Batch: 708577 — Analysis Method: SM 4500-Cl-E-2011
QC Batch Method: SM 4500-Cl-E-2011 — Analysis Description: 4500 Chloride
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010

METHOD BLANK: 3695347 — Matrix: Water
Associated Lab Samples: 92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.50	07/05/22 13:55	

LABORATORY CONTROL SAMPLE: 3695348

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	20.6	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3695349 3695350

Parameter	Units	92612051002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	99.2	10	10	111	109	114	93	90-110	2	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3695351 3695352

Parameter	Units	92612054001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	56.0	10	10	67.5	66.2	115	102	90-110	2	10	M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92612546001	**PT-01**	EPA 3010A	825861	EPA 6010D	826326
92612546002	**PT-02**	EPA 3010A	825861	EPA 6010D	826326
92612546003	**PT-03**	EPA 3010A	825861	EPA 6010D	826326
92612546004	**PT-04D**	EPA 3010A	825861	EPA 6010D	826326
92612546005	**DR-01**	EPA 3010A	825861	EPA 6010D	826326
92612546006	**DR-02**	EPA 3010A	825861	EPA 6010D	826326
92612546007	**MCM-06**	EPA 3010A	825861	EPA 6010D	826326
92612546008	**DPZ-02**	EPA 3010A	825861	EPA 6010D	826326
92612546009	**DUP-1**	EPA 3010A	825861	EPA 6010D	826326
92612546010	**FB-1**	EPA 3010A	825861	EPA 6010D	826326
92612546001	**PT-01**	EPA 3010A	826173	EPA 6010D	826585
92612546002	**PT-02**	EPA 3010A	826173	EPA 6010D	826585
92612546003	**PT-03**	EPA 3010A	826173	EPA 6010D	826585
92612546004	**PT-04D**	EPA 3010A	826173	EPA 6010D	826585
92612546005	**DR-01**	EPA 3010A	826173	EPA 6010D	826585
92612546006	**DR-02**	EPA 3010A	826173	EPA 6010D	826585
92612546007	**MCM-06**	EPA 3010A	826173	EPA 6010D	826585
92612546008	**DPZ-02**	EPA 3010A	826173	EPA 6010D	826585
92612546009	**DUP-1**	EPA 3010A	826173	EPA 6010D	826585
92612546010	**FB-1**	EPA 3010A	826173	EPA 6010D	826585
92612546001	**PT-01**	EPA 3020A	825866	EPA 6020B	826624
92612546002	**PT-02**	EPA 3020A	825866	EPA 6020B	826624
92612546003	**PT-03**	EPA 3020A	825866	EPA 6020B	826624
92612546004	**PT-04D**	EPA 3020A	825866	EPA 6020B	826624
92612546005	**DR-01**	EPA 3020A	825866	EPA 6020B	826624
92612546006	**DR-02**	EPA 3020A	825866	EPA 6020B	826624
92612546007	**MCM-06**	EPA 3020A	825866	EPA 6020B	826624
92612546008	**DPZ-02**	EPA 3020A	825866	EPA 6020B	826624
92612546009	**DUP-1**	EPA 3020A	825866	EPA 6020B	826624
92612546010	**FB-1**	EPA 3020A	825866	EPA 6020B	826624
92612546001	**PT-01**	EPA 3020A	826179	EPA 6020B	826670
92612546002	**PT-02**	EPA 3020A	826179	EPA 6020B	826670
92612546003	**PT-03**	EPA 3020A	826179	EPA 6020B	826670
92612546004	**PT-04D**	EPA 3020A	826179	EPA 6020B	826670
92612546005	**DR-01**	EPA 3020A	826179	EPA 6020B	826670
92612546006	**DR-02**	EPA 3020A	826179	EPA 6020B	826670
92612546007	**MCM-06**	EPA 3020A	826179	EPA 6020B	826670
92612546008	**DPZ-02**	EPA 3020A	826179	EPA 6020B	826670
92612546009	**DUP-1**	EPA 3020A	826179	EPA 6020B	826670
92612546010	**FB-1**	EPA 3020A	826179	EPA 6020B	826670
92612546001	**PT-01**	SM 2320B-2011	708484		
92612546002	**PT-02**	SM 2320B-2011	708484		
92612546003	**PT-03**	SM 2320B-2011	708485		
92612546004	**PT-04D**	SM 2320B-2011	708485		
92612546005	**DR-01**	SM 2320B-2011	708485		
92612546006	**DR-02**	SM 2320B-2011	708485		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS JUNE 2022
Pace Project No.: 92612546

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92612546007	MCM-06	SM 2320B-2011	708485		
92612546008	DPZ-02	SM 2320B-2011	708485		
92612546009	DUP-1	SM 2320B-2011	708485		
92612546010	FB-1	SM 2320B-2011	708485		
92612546001	PT-01	SM 2540C-2011	708223		
92612546002	PT-02	SM 2540C-2011	708223		
92612546003	PT-03	SM 2540C-2011	708223		
92612546004	PT-04D	SM 2540C-2011	708223		
92612546005	DR-01	SM 2540C-2011	708223		
92612546006	DR-02	SM 2540C-2011	708223		
92612546007	MCM-06	SM 2540C-2011	708223		
92612546008	DPZ-02	SM 2540C-2011	708223		
92612546009	DUP-1	SM 2540C-2011	708223		
92612546010	FB-1	SM 2540C-2011	708545		
92612546001	PT-01	SM 4500-S2D-2011	708171		
92612546002	PT-02	SM 4500-S2D-2011	708171		
92612546003	PT-03	SM 4500-S2D-2011	708171		
92612546004	PT-04D	SM 4500-S2D-2011	708171		
92612546005	DR-01	SM 4500-S2D-2011	708171		
92612546006	DR-02	SM 4500-S2D-2011	708171		
92612546007	MCM-06	SM 4500-S2D-2011	708171		
92612546008	DPZ-02	SM 4500-S2D-2011	708171		
92612546009	DUP-1	SM 4500-S2D-2011	708171		
92612546010	FB-1	SM 4500-S2D-2011	708171		
92612546001	PT-01	EPA 300.0 Rev 2.1 1993	708118		
92612546002	PT-02	EPA 300.0 Rev 2.1 1993	708118		
92612546003	PT-03	EPA 300.0 Rev 2.1 1993	708118		
92612546004	PT-04D	EPA 300.0 Rev 2.1 1993	708118		
92612546005	DR-01	EPA 300.0 Rev 2.1 1993	708118		
92612546006	DR-02	EPA 300.0 Rev 2.1 1993	708118		
92612546007	MCM-06	EPA 300.0 Rev 2.1 1993	708118		
92612546008	DPZ-02	EPA 300.0 Rev 2.1 1993	708118		
92612546009	DUP-1	EPA 300.0 Rev 2.1 1993	708118		
92612546010	FB-1	EPA 300.0 Rev 2.1 1993	708118		
92612546001	PT-01	SM 4500-Cl-E-2011	708577		
92612546002	PT-02	SM 4500-Cl-E-2011	708577		
92612546003	PT-03	SM 4500-Cl-E-2011	708577		
92612546004	PT-04D	SM 4500-Cl-E-2011	708577		
92612546005	DR-01	SM 4500-Cl-E-2011	708577		
92612546006	DR-02	SM 4500-Cl-E-2011	708577		
92612546007	MCM-06	SM 4500-Cl-E-2011	708577		
92612546008	DPZ-02	SM 4500-Cl-E-2011	708577		
92612546009	DUP-1	SM 4500-Cl-E-2011	708577		
92612546010	FB-1	SM 4500-Cl-E-2011	708577		

Pace Analytical®

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/L... MTJ...

WO# : 92612546

92612546

ALL SHADED AR...

Company: Georgia Power

Address: 1002 Westmoreland Pkwy Woodstock, GA 30188

Report To: Stephen.Wilson@ResoluteEnv.com

Copy To: Trent.Godwin@ResoluteEnv.com

Customer Project Name/Number: McManus Semi 2022

Phone: 706-646-0551

Email: Robert.Mull@Resolute...

Collected By (print): Robert Mull

Collected By (signature): [signature]

Sample Disposal:
[ ] Dispose as appropriate [ ] Return
[ ] Archive: ______
[ ] Hold: ______

Billing Information: Resolute Environmental

Email To: Trent.Godwin@ResoluteEnv.com

Site Collection Info/Address: Plant McManus

State: GA / County/City: Brunswick / Time Zone Collected: [ ] PT [ ] MT [ ] CT [✓] ET

Site/Facility ID #: Plant McManus

Compliance Monitoring? [ ] Yes [ ] No

Purchase Order #:

Quote #:

DW PWS ID #:

DW Location Code:

Turnaround Date Required: Standard Turnaround

Immediately Packed on Ice: [✓] Yes [ ] No

Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis: ______

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservative Type **: 2 | U | 5 | U | U | U | U

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other ______

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Time	Composite End Date	Time	Res Cl	# of Ctns	Total Metals	Dissolved Metals	Sulfide SM4500	Sulfate EPA 300.0	Alkalinity SM2320B	Chloride SM 4500	TDS
PT-01	GW	G	6/28/22	1555				6	X	X	X	X	X	X	X
PT-02	GW	G	6/29/22	1000				6	X	X	X	X	X	X	X
PT-03	GW	G	6/28/22	1450				6	X	X	X	X	X	X	X
PT-04D	GW	G	6/28/22	1420				6	X	X	X	X	X	X	X
DR-01	GW	G	6/28/22	1452				6	X	X	X	X	X	X	X
DR-02	GW	G	6/28/22	1605				6	X	X	X	X	X	X	X
MCM-06	GW	G	6/28/22	1600				6	X	X	X	X	X	X	X
DPZ-02	GW	G	6/28/22	1145				6	X	X	X	X	X	X	X
DUP-1	GW	G	6/28/22	—				6	X	X	X	X	X	X	X
FB-1	DW	G	6/29/22	1040				6	X	X	X	X	X	X	X

Lab Profile/Line:

Lab Sample Receipt Checklist:
- Custody Seals Present/Intact (Y) N NA
- Custody Signatures Present (Y) N NA
- Collector Signature Present (Y) N NA
- Bottles Intact (Y) N NA
- Correct Bottles (Y) N NA
- Sufficient Volume (Y) N NA
- Samples Received on Ice (Y) N NA
- VOA - Headspace Acceptable Y N (NA)
- USDA Regulated Soils Y N (NA)
- Samples in Holding Time (Y) N NA
- Residual Chlorine Present Y N (NA)
- Cl Strips:
- Sample pH Acceptable (Y) N NA
- pH Strips: 22380AV
- Sulfide Present Y N (NA)
- Lead Acetate Strips: ______

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards:
Metals - As, Fe, Ca, Mg, Na, K
Lab filtration for dissolved metals (not Field Filtered)

Type of Ice Used: (Wet) Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N (NA)

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2655160

Samples received via: (FEDEX) UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N (NA)
Therm ID#: 93T071
Cooler 1 Temp Upon Receipt: 1.4 oC 2.3
Cooler 1 Therm Corr. Factor: 0 oC
Cooler 1 Corrected Temp: 1.4 oC 2.3
Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	MTJL LAB USE ONLY
[signature] Resolute	6/29/22 11:30	KBurnleam AVL	6/30/22 1105	Table #:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Acctnum: Template: Prelogin:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	PM: PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / (NO)

Page: ____ of: ____

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottles

Project

WO# : 92612546

PM: NMG Due Date: 07/15/22

CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VQAK (3 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SR2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AGDU-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		3	1			1	1																						
2		3	1			1	1																						
3		3	1			1	1																						
4		3	1			1	1																						
5		3	1			1	1																						
6		3	1			1	1																						
7		3	1			1	1																						
8		3	1			1	1																						
9		3	1			1	1																						
10		3	1			1	1																						
11																													
12																													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kristen N Jurinko
Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Generated 12/16/2022 3:54:27 PM Revision 2

JOB DESCRIPTION

Plant McManus AP1

JOB NUMBER

680-221504-1

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404

See page two for job notes and contact information.

Job Notes

The test results in this report meet NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted. Results pertain only to samples listed in this report. This report may not be reproduced, except in full, without the written approval of the laboratory. Questions should be directed to the person who signed this report.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization

Generated
12/16/2022 3:54:27 PM
Revision 2

Authorized for release by
David Fuller, Project Manager
David.Fuller@et.eurofinsus.com
(770)344-8986

Definitions/Glossary

Client: Southern Company
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL, and the absolute difference between results is < the upper reporting limits for both.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: Southern Company
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-221504-1	MCM-18	Water	09/20/22 14:30	09/21/22 17:30
680-221504-2	MCM-19	Water	09/20/22 15:58	09/21/22 17:30
680-221504-3	DUP-1	Water	09/20/22 00:00	09/21/22 17:30
680-221504-4	FB-1	Water	09/20/22 17:50	09/21/22 17:30
680-221504-5	EB-1	Water	09/20/22 17:40	09/21/22 17:30
680-221504-6	MCM-06	Water	09/20/22 10:14	09/21/22 17:30
680-221504-7	MCM-20	Water	09/20/22 11:22	09/21/22 17:30
680-221504-8	DPZ-2	Water	09/20/22 12:20	09/21/22 17:30
680-221504-9	PT-01	Water	09/20/22 10:15	09/21/22 17:30
680-221504-10	PT-02	Water	09/20/22 16:45	09/21/22 17:30
680-221504-11	PT-03	Water	09/20/22 16:28	09/21/22 17:30
680-221504-12	DR-01	Water	09/20/22 15:15	09/21/22 17:30
680-221504-13	DR-02	Water	09/20/22 15:05	09/21/22 17:30
680-221590-1	MCM-01	Water	09/21/22 18:08	09/23/22 10:40
680-221590-2	MCM-02	Water	09/21/22 13:56	09/23/22 10:40
680-221590-3	MCM-04	Water	09/21/22 15:20	09/23/22 10:40
680-221590-4	MCM-05	Water	09/21/22 15:20	09/23/22 10:40
680-221590-5	MCM-07	Water	09/21/22 10:50	09/23/22 10:40
680-221590-6	MCM-11	Water	09/21/22 11:26	09/23/22 10:40
680-221590-7	MCM-12	Water	09/21/22 11:10	09/23/22 10:40
680-221590-8	MCM-14	Water	09/21/22 14:00	09/23/22 10:40
680-221590-9	MCM-15	Water	09/21/22 16:45	09/23/22 10:40
680-221590-10	MCM-16	Water	09/21/22 17:00	09/23/22 10:40
680-221590-11	MCM-17	Water	09/21/22 18:45	09/23/22 10:40
680-221590-12	DUP-2	Water	09/21/22 00:00	09/23/22 10:40
680-221590-13	FB-2	Water	09/21/22 17:25	09/23/22 10:40
680-221590-14	EB-2	Water	09/21/22 17:35	09/23/22 10:40
680-221590-15	PT-04D	Water	09/21/22 14:00	09/23/22 10:40

Job ID: 680-221504-1

Laboratory: Eurofins Savannah

Narrative

Job Narrative
680-221504-1

Revision 2
The report being provided is a revision of the original report sent on 10/18/2022. The report (revision 2) is being revised in order to report Lithium with less of a dilution for samples: DUP-1 (680-221504-3),MCM-06 (680-221504-6) and MCM-20 (680-221504-7) 680-221504-3. The same recent changes in the Pensacola's lab's control limits for internal standards made this possible. However, these Lithium results still did not meet the data quality objectives for this site, so these same three samples listed above were sent to Eurofins Pittsburgh in an attempt to report Lithium without dilution. These Lithium results are now reported with the 12/15/22 6020B analyses for DUP-1 (680-221504-3), MCM-06 (680-221504-6) and MCM-20 (680-221504-7).

Report revision history
Revision 1 - 11/18/2022 - Reason - in order to correct 6020B metals results, that were originally reported at 50, 100 or even 500 times diluted. to now report with only a 5X dilution. Recent changes in the lab's control limits for internal standards made this possible. NOTE: three samples still required 50 times dilutiion for Lithium due to matrix interferences as noted below.

Receipt
The samples were received on 9/21/2022 5:30 PM and 9/23/2022 10:40 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 9 coolers at receipt time were 1.8°C, 2.0°C, 2.0°C, 2.2°C, 2.4°C, 2.5°C, 2.6°C, 3.0°C and 3.0°C

HPLC/IC
Method 300_ORGFM_28D: The matrix spike (MS) recovery for analytical batch 680-743856 were outside control limits for fluoride. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 6020B: The following samples were diluted due to the abundance of non-target analytes: MCM-17 (680-221590-11), DR-01 (680-221504-12), DR-02 (680-221504-13) PT-04D (680-221590-15). Elevated reporting limits (RLs) are provided.

Method 6020B: Internal standard responses were outside of acceptance limits for the following sample(s): DUP-1 (680-221504-3), MCM-06 (680-221504-6) and MCM-20 (680-221504-7). The samples show evidence of matrix interference so a dilution of 50X was required.

Method 6020B: The method blank for Analytical Batches 594928 and 595577 contained Boron above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 7470A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 680-742786 and analytical batch 680-743020 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 2540C: The sample duplicate precision for the following sample associated with analytical batch 680-741871 was outside control limits: (680-221381-H-1 DU). The associated Laboratory Control Sample / Laboratory Control Sample Duplicate (LCS/LCSD) precision met acceptance criteria.

Method 2540C: The sample duplicate precision for the following sample associated with analytical batch 680-742241 was outside control limits: (680-221557-A-1 DU). The associated Laboratory Control Sample / Laboratory Control Sample Duplicate (LCS/LCSD) precision met acceptance criteria.

Job ID: 680-221504-1 (Continued)

Laboratory: Eurofins Savannah (Continued)

Method SM4500_S2_F: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 680-742189 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample ID: MCM-18

Lab Sample ID: 680-221504-1

Date Collected: 09/20/22 14:30

Matrix: Water

Date Received: 09/21/22 17:30

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1200**		10	2.0	mg/L			10/03/22 16:32	10
Fluoride	**0.61**	**J**	1.0	0.40	mg/L			10/03/22 16:32	10
Sulfate	**160**		10	4.0	mg/L			10/03/22 16:32	10

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/01/22 11:45	10/07/22 22:57	5
Barium	**0.11**		0.010	0.00089	mg/L		09/22/22 14:42	09/23/22 19:41	1
Arsenic	**0.0026**	**J**	0.0063	0.0012	mg/L		10/01/22 11:45	10/07/22 22:57	5
Beryllium	**0.0030**		0.0025	0.00020	mg/L		09/22/22 14:42	09/23/22 19:41	1
Boron	**0.18**	**J B**	0.40	0.0012	mg/L		10/01/22 11:45	10/07/22 22:57	5
Cadmium	**0.00078**	**J**	0.0025	0.000078	mg/L		09/22/22 14:42	09/23/22 19:41	1
Calcium	**20**		0.50	0.14	mg/L		09/22/22 14:42	09/23/22 19:41	1
Chromium	**0.0021**	**J**	0.013	0.0010	mg/L		10/01/22 11:45	10/13/22 21:48	5
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/22/22 14:42	09/23/22 19:41	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/01/22 11:45	10/07/22 22:57	5
Iron	**32**		0.10	0.026	mg/L		09/22/22 14:42	09/23/22 19:41	1
Lithium	<0.0049	F1	0.025	0.0049	mg/L		10/01/22 11:45	10/13/22 21:48	5
Magnesium	**62**		0.50	0.023	mg/L		09/22/22 14:42	09/23/22 19:41	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/22/22 14:42	09/23/22 19:41	1
Potassium	**9.0**		1.0	0.16	mg/L		09/22/22 14:42	09/23/22 19:41	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/22/22 14:42	09/23/22 19:41	1
Sodium	**690**		5.0	2.0	mg/L		09/22/22 14:42	09/26/22 16:26	10
Thallium	<0.00026		0.0010	0.00026	mg/L		09/22/22 14:42	09/23/22 19:41	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/27/22 08:00	09/27/22 15:58	0

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	<2.2		5.0	2.2	mg/L			09/26/22 14:15	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/26/22 14:15	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/26/22 14:15	1
Total Dissolved Solids (SM 2540C-2011)	**2000**		80	80	mg/L			09/23/22 10:39	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.47**				SU			09/20/22 14:30	1

Client Sample ID: MCM-19

Lab Sample ID: 680-221504-2

Date Collected: 09/20/22 15:58

Matrix: Water

Date Received: 09/21/22 17:30

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6200**		100	20	mg/L			10/03/22 16:44	100
Fluoride	<4.0		10	4.0	mg/L			10/03/22 16:44	100

Client Sample ID: MCM-19

Lab Sample ID: 680-221504-2

Date Collected: 09/20/22 15:58

Matrix: Water

Date Received: 09/21/22 17:30

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**740**		100	40	mg/L			10/03/22 16:44	100

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/01/22 11:45	10/07/22 23:12	5
Barium	**0.12**		0.010	0.00089	mg/L		09/22/22 14:42	09/23/22 19:53	1
Arsenic	**0.021**		0.0063	0.0012	mg/L		10/01/22 11:45	10/07/22 23:12	5
Beryllium	**0.017**		0.0025	0.00020	mg/L		09/22/22 14:42	09/23/22 19:53	1
Boron	**0.77**	**B**	0.40	0.0012	mg/L		10/01/22 11:45	10/07/22 23:12	5
Cadmium	**0.0083**		0.0025	0.000078	mg/L		09/22/22 14:42	09/23/22 19:53	1
Calcium	**150**		0.50	0.14	mg/L		09/22/22 14:42	09/23/22 19:53	1
Chromium	<0.0010		0.013	0.0010	mg/L		10/01/22 11:45	10/07/22 23:12	5
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/22/22 14:42	09/23/22 19:53	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/01/22 11:45	10/07/22 23:12	5
Iron	**120**		0.10	0.026	mg/L		09/22/22 14:42	09/23/22 19:53	1
Lithium	**0.014**	**J**	0.050	0.0098	mg/L		10/01/22 11:45	10/13/22 21:54	10
Magnesium	**430**		0.50	0.023	mg/L		09/22/22 14:42	09/23/22 19:53	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/22/22 14:42	09/23/22 19:53	1
Potassium	**73**		1.0	0.16	mg/L		09/22/22 14:42	09/23/22 19:53	1
Selenium	**0.0046**	**J**	0.0050	0.0012	mg/L		09/22/22 14:42	09/23/22 19:53	1
Sodium	**3200**		5.0	2.0	mg/L		09/22/22 14:42	09/26/22 16:38	10
Thallium	<0.00026		0.0010	0.00026	mg/L		09/22/22 14:42	09/23/22 19:53	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/27/22 08:00	09/27/22 16:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**29**		5.0	2.2	mg/L			09/26/22 14:01	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**29**		5.0	5.0	mg/L			09/26/22 14:01	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/26/22 14:01	1
Total Dissolved Solids (SM 2540C-2011)	**10000**		2000	2000	mg/L			09/23/22 10:39	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.14**				SU			09/20/22 15:58	1

Client Sample ID: DUP-1

Lab Sample ID: 680-221504-3

Date Collected: 09/20/22 00:00

Matrix: Water

Date Received: 09/21/22 17:30

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2200**		25	5.0	mg/L			10/03/22 16:57	25
Fluoride	**1.1**	**J**	2.5	1.0	mg/L			10/03/22 16:57	25
Sulfate	**290**		25	10	mg/L			10/03/22 16:57	25

Client Sample ID: DUP-1

Lab Sample ID: 680-221504-3

Date Collected: 09/20/22 00:00

Matrix: Water

Date Received: 09/21/22 17:30

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/01/22 11:45	10/07/22 23:15	5
Barium	**0.028**		0.010	0.00089	mg/L		09/22/22 14:42	09/23/22 19:56	1
Arsenic	**0.18**		0.0063	0.0012	mg/L		10/01/22 11:45	10/07/22 23:15	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/22/22 14:42	09/23/22 19:56	1
Boron	**1.1**	**B**	0.40	0.0012	mg/L		10/01/22 11:45	10/07/22 23:15	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/22/22 14:42	09/23/22 19:56	1
Calcium	**49**		0.50	0.14	mg/L		09/22/22 14:42	09/23/22 19:56	1
Chromium	<0.0010		0.013	0.0010	mg/L		10/01/22 11:45	10/07/22 23:15	5
Cobalt	**0.00025**	**J**	0.0025	0.00022	mg/L		09/22/22 14:42	09/23/22 19:56	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/01/22 11:45	10/07/22 23:15	5
Iron	**0.075**	**J**	0.10	0.026	mg/L		09/22/22 14:42	09/23/22 19:56	1
Lithium	<0.049		0.25	0.049	mg/L		10/01/22 11:45	10/13/22 22:00	50
Magnesium	**92**		0.50	0.023	mg/L		09/22/22 14:42	09/23/22 19:56	1
Molybdenum	**0.0013**	**J**	0.015	0.00086	mg/L		09/22/22 14:42	09/23/22 19:56	1
Potassium	**61**		1.0	0.16	mg/L		09/22/22 14:42	09/23/22 19:56	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/22/22 14:42	09/23/22 19:56	1
Sodium	**1400**		5.0	2.0	mg/L		09/22/22 14:42	09/26/22 16:42	10
Thallium	<0.00026		0.0010	0.00026	mg/L		09/22/22 14:42	09/23/22 19:56	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/27/22 08:00	09/27/22 16:03	1

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.043**		0.0050	0.00083	mg/L		12/13/22 14:00	12/15/22 12:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**250**		5.0	2.2	mg/L			09/26/22 14:26	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**250**		5.0	5.0	mg/L			09/26/22 14:26	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/26/22 14:26	1
Total Dissolved Solids (SM 2540C-2011)	**4000**		400	400	mg/L			09/23/22 10:39	1

Client Sample ID: FB-1

Lab Sample ID: 680-221504-4

Date Collected: 09/20/22 17:50

Matrix: Water

Date Received: 09/21/22 17:30

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/03/22 17:09	1
Fluoride	<0.040		0.10	0.040	mg/L			10/03/22 17:09	1
Sulfate	<0.40		1.0	0.40	mg/L			10/03/22 17:09	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/01/22 11:45	10/07/22 23:37	5
Barium	<0.00089		0.010	0.00089	mg/L		09/23/22 07:50	09/24/22 04:06	1

Client Sample ID: FB-1

Lab Sample ID: 680-221504-4

Date Collected: 09/20/22 17:50

Matrix: Water

Date Received: 09/21/22 17:30

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0012		0.0063	0.0012	mg/L		10/01/22 11:45	10/07/22 23:37	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/23/22 07:50	09/24/22 04:06	1
Boron	**0.0051**	**J B**	0.40	0.0012	mg/L		10/01/22 11:45	10/07/22 23:37	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/23/22 07:50	09/24/22 04:06	1
Calcium	<0.14		0.50	0.14	mg/L		09/23/22 07:50	09/24/22 04:06	1
Chromium	<0.0010		0.013	0.0010	mg/L		10/01/22 11:45	10/07/22 23:37	5
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/23/22 07:50	09/24/22 04:06	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/01/22 11:45	10/07/22 23:37	5
Iron	<0.026		0.10	0.026	mg/L		09/23/22 07:50	09/24/22 04:06	1
Lithium	<0.0049		0.025	0.0049	mg/L		10/01/22 11:45	10/13/22 22:07	5
Magnesium	<0.023		0.50	0.023	mg/L		09/23/22 07:50	09/26/22 17:24	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/23/22 07:50	09/24/22 04:06	1
Potassium	<0.16		1.0	0.16	mg/L		09/23/22 07:50	09/24/22 04:06	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/23/22 07:50	09/24/22 04:06	1
Sodium	<0.20		0.50	0.20	mg/L		09/23/22 07:50	09/24/22 04:06	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/23/22 07:50	09/24/22 04:06	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/27/22 08:00	09/27/22 16:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	<2.2		5.0	2.2	mg/L			09/26/22 14:32	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/26/22 14:32	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/26/22 14:32	1
Total Dissolved Solids (SM 2540C-2011)	<10		10	10	mg/L			09/23/22 10:39	1

Client Sample ID: EB-1

Lab Sample ID: 680-221504-5

Date Collected: 09/20/22 17:40

Matrix: Water

Date Received: 09/21/22 17:30

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/03/22 17:21	1
Fluoride	<0.040		0.10	0.040	mg/L			10/03/22 17:21	1
Sulfate	<0.40		1.0	0.40	mg/L			10/03/22 17:21	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/01/22 11:45	10/07/22 23:40	5
Barium	<0.00089		0.010	0.00089	mg/L		09/22/22 14:18	09/23/22 22:10	1
Arsenic	<0.0012		0.0063	0.0012	mg/L		10/01/22 11:45	10/07/22 23:40	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/22/22 14:18	09/23/22 22:10	1
Boron	**0.0033**	**J B**	0.40	0.0012	mg/L		10/01/22 11:45	10/07/22 23:40	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/22/22 14:18	09/23/22 22:10	1
Calcium	<0.14		0.50	0.14	mg/L		09/22/22 14:18	09/23/22 22:10	1
Chromium	<0.0010		0.013	0.0010	mg/L		10/01/22 11:45	10/07/22 23:40	5

Client Sample ID: EB-1

Lab Sample ID: 680-221504-5

Date Collected: 09/20/22 17:40

Matrix: Water

Date Received: 09/21/22 17:30

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/22/22 14:18	09/23/22 22:10	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/01/22 11:45	10/07/22 23:40	5
Iron	<0.026		0.10	0.026	mg/L		09/22/22 14:18	09/23/22 22:10	1
Lithium	<0.0049		0.025	0.0049	mg/L		10/01/22 11:45	10/13/22 22:13	5
Magnesium	<0.023		0.50	0.023	mg/L		09/22/22 14:18	09/23/22 22:10	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/22/22 14:18	09/23/22 22:10	1
Potassium	<0.16		1.0	0.16	mg/L		09/22/22 14:18	09/23/22 22:10	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/22/22 14:18	09/23/22 22:10	1
Sodium	<0.20		0.50	0.20	mg/L		09/22/22 14:18	09/23/22 22:10	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/22/22 14:18	09/23/22 22:10	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/27/22 08:00	09/27/22 16:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	<2.2		5.0	2.2	mg/L			09/27/22 18:51	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 18:51	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 18:51	1
Total Dissolved Solids (SM 2540C-2011)	<10		10	10	mg/L			09/23/22 10:39	1

Client Sample ID: MCM-06

Lab Sample ID: 680-221504-6

Date Collected: 09/20/22 10:14

Matrix: Water

Date Received: 09/21/22 17:30

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2800**		25	5.0	mg/L			10/03/22 17:34	25
Fluoride	**1.1**	**J**	2.5	1.0	mg/L			10/03/22 17:34	25
Sulfate	**320**		25	10	mg/L			10/03/22 17:34	25

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/01/22 11:45	10/07/22 23:43	5
Barium	**0.027**		0.010	0.00089	mg/L		09/22/22 14:18	09/23/22 22:14	1
Arsenic	**0.18**		0.0063	0.0012	mg/L		10/01/22 11:45	10/07/22 23:43	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/22/22 14:18	09/23/22 22:14	1
Boron	**1.1**	**B**	0.40	0.0012	mg/L		10/01/22 11:45	10/07/22 23:43	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/22/22 14:18	09/23/22 22:14	1
Calcium	**47**		0.50	0.14	mg/L		09/22/22 14:18	09/23/22 22:14	1
Chromium	<0.0010		0.013	0.0010	mg/L		10/01/22 11:45	10/07/22 23:43	5
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/22/22 14:18	09/23/22 22:14	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/01/22 11:45	10/07/22 23:43	5
Iron	**0.056**	**J**	0.10	0.026	mg/L		09/22/22 14:18	09/23/22 22:14	1
Lithium	<0.049		0.25	0.049	mg/L		10/01/22 11:45	10/13/22 22:34	50
Magnesium	**91**		0.50	0.023	mg/L		09/22/22 14:18	09/23/22 22:14	1
Molybdenum	**0.0013**	**J**	0.015	0.00086	mg/L		09/22/22 14:18	09/23/22 22:14	1

Client Sample ID: MCM-06

Lab Sample ID: 680-221504-6

Date Collected: 09/20/22 10:14

Matrix: Water

Date Received: 09/21/22 17:30

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	**56**		1.0	0.16	mg/L		09/22/22 14:18	09/23/22 22:14	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/22/22 14:18	09/23/22 22:14	1
Sodium	**1400**		5.0	2.0	mg/L		09/22/22 14:18	09/26/22 16:06	10
Thallium	<0.00026		0.0010	0.00026	mg/L		09/22/22 14:18	09/23/22 22:14	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	<0.026		0.10	0.026	mg/L		09/23/22 05:58	09/24/22 02:31	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/27/22 08:00	09/27/22 16:16	1

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.043**		0.0050	0.00083	mg/L		12/13/22 14:00	12/15/22 13:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**270**		5.0	2.2	mg/L			09/27/22 19:18	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**270**		5.0	5.0	mg/L			09/27/22 19:18	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 19:18	1
Total Dissolved Solids (SM 2540C-2011)	**3900**		400	400	mg/L			09/23/22 10:39	1
Sulfide (SM 4500 S2 F-2011)	**20**	**F1**	0.83	0.83	mg/L			09/26/22 10:22	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**7.29**				SU			09/20/22 10:14	1

Client Sample ID: MCM-20

Lab Sample ID: 680-221504-7

Date Collected: 09/20/22 11:22

Matrix: Water

Date Received: 09/21/22 17:30

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5700**		50	10	mg/L			10/03/22 17:46	50
Fluoride	**4.3**	**J**	5.0	2.0	mg/L			10/03/22 17:46	50
Sulfate	**750**		50	20	mg/L			10/03/22 17:46	50

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/01/22 11:45	10/07/22 23:46	5
Barium	**0.12**		0.010	0.00089	mg/L		09/22/22 14:18	09/23/22 21:51	1
Arsenic	**0.026**		0.0063	0.0012	mg/L		10/01/22 11:45	10/07/22 23:46	5
Beryllium	**0.020**		0.0025	0.00020	mg/L		09/22/22 14:18	09/23/22 21:51	1
Boron	**0.90**	**B**	0.40	0.0012	mg/L		10/01/22 11:45	10/07/22 23:46	5
Cadmium	**0.0043**		0.0025	0.000078	mg/L		09/22/22 14:18	09/23/22 21:51	1
Calcium	**100**		0.50	0.14	mg/L		09/22/22 14:18	09/23/22 21:51	1

Client Sample ID: MCM-20

Lab Sample ID: 680-221504-7

Date Collected: 09/20/22 11:22

Matrix: Water

Date Received: 09/21/22 17:30

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	<0.0010		0.013	0.0010	mg/L		10/01/22 11:45	10/07/22 23:46	5
Cobalt	**0.030**		0.0025	0.00022	mg/L		09/22/22 14:18	09/23/22 21:51	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/01/22 11:45	10/07/22 23:46	5
Iron	**130**		0.10	0.026	mg/L		09/22/22 14:18	09/23/22 21:51	1
Lithium	<0.049		0.25	0.049	mg/L		10/01/22 11:45	10/13/22 22:41	50
Magnesium	**330**		0.50	0.023	mg/L		09/22/22 14:18	09/23/22 21:51	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/22/22 14:18	09/23/22 21:51	1
Potassium	**74**		1.0	0.16	mg/L		09/22/22 14:18	09/23/22 21:51	1
Selenium	**0.0027**	**J**	0.0050	0.0012	mg/L		09/22/22 14:18	09/23/22 21:51	1
Sodium	**2900**		5.0	2.0	mg/L		09/22/22 14:18	09/26/22 15:51	10
Thallium	<0.00026		0.0010	0.00026	mg/L		09/22/22 14:18	09/23/22 21:51	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	**120**		0.10	0.026	mg/L		09/27/22 11:35	09/29/22 18:06	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/27/22 08:00	09/27/22 16:18	1

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.029**		0.0050	0.00083	mg/L		12/13/22 14:00	12/15/22 13:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	<2.2		5.0	2.2	mg/L			09/27/22 19:06	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 19:06	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 19:06	1
Total Dissolved Solids (SM 2540C-2011)	**8600**		2000	2000	mg/L			09/23/22 10:39	1
Sulfide (SM 4500 S2 F-2011)	**2.1**		0.86	0.86	mg/L			09/26/22 10:22	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**3.63**				SU			09/20/22 11:22	1

Client Sample ID: DPZ-2

Lab Sample ID: 680-221504-8

Date Collected: 09/20/22 12:20

Matrix: Water

Date Received: 09/21/22 17:30

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7400**		100	20	mg/L			10/06/22 16:18	100
Fluoride	<4.0		10	4.0	mg/L			10/06/22 16:18	100
Sulfate	**820**		100	40	mg/L			10/06/22 16:18	100

Client Sample ID: DPZ-2

Lab Sample ID: 680-221504-8

Date Collected: 09/20/22 12:20

Matrix: Water

Date Received: 09/21/22 17:30

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/01/22 11:45	10/07/22 23:49	5
Barium	**0.069**		0.010	0.00089	mg/L		09/22/22 14:42	09/23/22 20:00	1
Arsenic	**0.021**		0.0063	0.0012	mg/L		10/01/22 11:45	10/07/22 23:49	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/22/22 14:42	09/23/22 20:00	1
Boron	**1.7**	**B**	0.40	0.0012	mg/L		10/01/22 11:45	10/07/22 23:49	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/22/22 14:42	09/23/22 20:00	1
Calcium	**240**		0.50	0.14	mg/L		09/22/22 14:42	09/23/22 20:00	1
Chromium	<0.0010		0.013	0.0010	mg/L		10/01/22 11:45	10/07/22 23:49	5
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/22/22 14:42	09/23/22 20:00	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/01/22 11:45	10/07/22 23:49	5
Iron	<0.026		0.10	0.026	mg/L		09/22/22 14:42	09/23/22 20:00	1
Lithium	<0.0049		0.025	0.0049	mg/L		10/01/22 11:45	10/07/22 23:49	5
Magnesium	**450**		5.0	0.23	mg/L		09/22/22 14:42	09/26/22 16:45	10
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/22/22 14:42	09/23/22 20:00	1
Potassium	**140**		1.0	0.16	mg/L		09/22/22 14:42	09/23/22 20:00	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/22/22 14:42	09/23/22 20:00	1
Sodium	**4100**		5.0	2.0	mg/L		09/22/22 14:42	09/26/22 16:45	10
Thallium	<0.00026		0.0010	0.00026	mg/L		09/22/22 14:42	09/23/22 20:00	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	<0.026		0.10	0.026	mg/L		09/23/22 05:58	09/24/22 02:42	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/27/22 08:00	09/27/22 16:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**410**		5.0	2.2	mg/L			09/27/22 19:24	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**410**		5.0	5.0	mg/L			09/27/22 19:24	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 19:24	1
Total Dissolved Solids (SM 2540C-2011)	**13000**		2000	2000	mg/L			09/23/22 10:39	1
Sulfide (SM 4500 S2 F-2011)	**23**		0.83	0.83	mg/L			09/26/22 10:22	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**7.07**				SU			09/20/22 12:20	1

Client Sample ID: PT-01

Lab Sample ID: 680-221504-9

Date Collected: 09/20/22 10:15

Matrix: Water

Date Received: 09/21/22 17:30

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2400**		25	5.0	mg/L			10/06/22 16:30	25
Fluoride	<1.0		2.5	1.0	mg/L			10/06/22 16:30	25
Sulfate	**210**		25	10	mg/L			10/06/22 16:30	25

Client Sample ID: PT-01

Lab Sample ID: 680-221504-9

Date Collected: 09/20/22 10:15

Matrix: Water

Date Received: 09/21/22 17:30

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.035		0.0013	0.0012	mg/L		10/01/22 11:45	10/07/22 23:52	5
Iron	<0.079		0.13	0.079	mg/L		10/01/22 11:45	10/07/22 23:52	5

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	0.039	J	0.10	0.026	mg/L		09/23/22 05:58	09/24/22 02:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C-2011)	4600		400	400	mg/L			09/23/22 10:39	1
Sulfide (SM 4500 S2 F-2011)	19		0.83	0.83	mg/L			09/26/22 10:22	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.12				SU			09/20/22 10:15	1

Client Sample ID: PT-02

Lab Sample ID: 680-221504-10

Date Collected: 09/20/22 16:45

Matrix: Water

Date Received: 09/21/22 17:30

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2100		25	5.0	mg/L			10/06/22 16:43	25
Fluoride	<1.0		2.5	1.0	mg/L			10/06/22 16:43	25
Sulfate	190		25	10	mg/L			10/06/22 16:43	25

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0094		0.0013	0.0012	mg/L		10/01/22 11:45	10/07/22 23:55	5
Iron	0.12	J	0.13	0.079	mg/L		10/01/22 11:45	10/07/22 23:55	5

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	0.035	J	0.10	0.026	mg/L		09/23/22 05:58	09/24/22 02:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C-2011)	3800		400	400	mg/L			09/23/22 10:39	1
Sulfide (SM 4500 S2 F-2011)	19		0.83	0.83	mg/L			09/26/22 10:22	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.38				SU			09/20/22 16:45	1

Client Sample ID: PT-03

Lab Sample ID: 680-221504-11

Date Collected: 09/20/22 16:28

Matrix: Water

Date Received: 09/21/22 17:30

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1900		25	5.0	mg/L			10/06/22 16:56	25

Client Sample ID: PT-03

Lab Sample ID: 680-221504-11

Date Collected: 09/20/22 16:28

Matrix: Water

Date Received: 09/21/22 17:30

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.0		2.5	1.0	mg/L			10/06/22 16:56	25
Sulfate	**210**		25	10	mg/L			10/06/22 16:56	25

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.047**		0.0013	0.0012	mg/L		10/01/22 11:45	10/07/22 23:58	5
Iron	**0.097**	**J**	0.13	0.079	mg/L		10/01/22 11:45	10/07/22 23:58	5

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	<0.026		0.10	0.026	mg/L		09/23/22 05:58	09/24/22 02:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C-2011)	**3700**		200	200	mg/L			09/26/22 13:05	1
Sulfide (SM 4500 S2 F-2011)	**18**		0.83	0.83	mg/L			09/26/22 10:22	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**7.30**				SU			09/20/22 16:28	1

Client Sample ID: DR-01

Lab Sample ID: 680-221504-12

Date Collected: 09/20/22 15:15

Matrix: Water

Date Received: 09/21/22 17:30

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3100**		25	5.0	mg/L			10/06/22 21:37	25
Fluoride	**1.0**	**J**	2.5	1.0	mg/L			10/06/22 21:37	25
Sulfate	**330**		25	10	mg/L			10/06/22 21:37	25

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.030**		0.0013	0.0012	mg/L		10/01/22 11:45	10/08/22 00:01	5
Iron	<0.079		0.13	0.079	mg/L		10/01/22 11:45	10/08/22 00:01	5

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	<0.026		0.10	0.026	mg/L		09/23/22 05:58	09/24/22 02:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C-2011)	**5800**		400	400	mg/L			09/26/22 13:05	1
Sulfide (SM 4500 S2 F-2011)	**24**		0.81	0.81	mg/L			09/26/22 10:22	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**7.36**				SU			09/20/22 15:15	1

Client Sample ID: DR-02

Lab Sample ID: 680-221504-13

Date Collected: 09/20/22 15:05

Matrix: Water

Date Received: 09/21/22 17:30

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3700**		50	10	mg/L			10/06/22 19:52	50
Fluoride	<2.0		5.0	2.0	mg/L			10/06/22 19:52	50
Sulfate	**430**		50	20	mg/L			10/06/22 19:52	50

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.036**		0.0013	0.0012	mg/L		10/01/22 11:45	10/08/22 00:05	5
Iron	<0.079		0.13	0.079	mg/L		10/01/22 11:45	10/08/22 00:05	5

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	**0.035**	**J**	0.10	0.026	mg/L		09/23/22 05:58	09/24/22 03:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C-2011)	**7800**		2000	2000	mg/L			09/26/22 13:05	1
Sulfide (SM 4500 S2 F-2011)	**22**		0.86	0.86	mg/L			09/26/22 10:22	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**7.32**				SU			09/20/22 15:05	1

Client Sample ID: MCM-01

Lab Sample ID: 680-221590-1

Date Collected: 09/21/22 18:08

Matrix: Water

Date Received: 09/23/22 10:40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**17**		1.0	0.20	mg/L			10/07/22 23:36	1
Fluoride	<0.040		0.10	0.040	mg/L			10/07/22 23:36	1
Sulfate	**39**		1.0	0.40	mg/L			10/07/22 23:36	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 23:31	5
Barium	**0.11**		0.010	0.00089	mg/L		09/27/22 06:03	09/27/22 23:55	1
Arsenic	**0.0057**	**J**	0.0063	0.0012	mg/L		10/02/22 11:35	10/03/22 23:31	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/27/22 06:03	09/27/22 23:55	1
Boron	**0.35**	**J**	0.40	0.0012	mg/L		10/02/22 11:35	10/03/22 23:31	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/27/22 06:03	09/27/22 23:55	1
Calcium	**9.2**		0.50	0.14	mg/L		09/27/22 06:03	09/27/22 23:55	1
Chromium	**0.0014**	**J**	0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 23:31	5
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/27/22 06:03	09/27/22 23:55	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 23:31	5
Iron	**2.7**		0.10	0.026	mg/L		09/27/22 06:03	09/27/22 23:55	1
Lithium	<0.0049		0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 23:31	5
Magnesium	**1.9**		0.50	0.023	mg/L		09/27/22 06:03	09/27/22 23:55	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/27/22 06:03	09/27/22 23:55	1
Potassium	**2.2**		1.0	0.16	mg/L		09/27/22 06:03	09/27/22 23:55	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/27/22 06:03	09/27/22 23:55	1

Client Sample ID: MCM-01

Date Collected: 09/21/22 18:08
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221590-1
Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	**17**		0.50	0.20	mg/L		09/27/22 06:03	09/27/22 23:55	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/27/22 06:03	09/27/22 23:55	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/29/22 10:35	09/30/22 10:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**5.0**		5.0	2.2	mg/L			09/27/22 19:38	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**5.0**		5.0	5.0	mg/L			09/27/22 19:38	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 19:38	1
Total Dissolved Solids (SM 2540C-2011)	**100**		10	10	mg/L			09/26/22 13:05	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.95**				SU			09/21/22 18:08	1

Client Sample ID: MCM-02

Date Collected: 09/21/22 13:56
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221590-2
Matrix: Water

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**23**		1.0	0.20	mg/L			10/07/22 23:49	1
Fluoride	<0.040		0.10	0.040	mg/L			10/07/22 23:49	1
Sulfate	**29**		1.0	0.40	mg/L			10/07/22 23:49	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 23:35	5
Barium	**0.076**		0.010	0.00089	mg/L		09/27/22 06:03	09/27/22 23:36	1
Arsenic	<0.0012		0.0063	0.0012	mg/L		10/02/22 11:35	10/03/22 23:35	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/27/22 06:03	09/27/22 23:36	1
Boron	**0.23**	**J**	0.40	0.0012	mg/L		10/02/22 11:35	10/03/22 23:35	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/27/22 06:03	09/27/22 23:36	1
Calcium	**4.3**		0.50	0.14	mg/L		09/27/22 06:03	09/27/22 23:36	1
Chromium	<0.0010		0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 23:35	5
Cobalt	**0.00032**	**J**	0.0025	0.00022	mg/L		09/27/22 06:03	09/27/22 23:36	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 23:35	5
Iron	**1.2**		0.10	0.026	mg/L		09/27/22 06:03	09/27/22 23:36	1
Lithium	<0.0049		0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 23:35	5
Magnesium	**2.1**		0.50	0.023	mg/L		09/27/22 06:03	09/27/22 23:36	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/27/22 06:03	09/27/22 23:36	1
Potassium	**0.81**	**J**	1.0	0.16	mg/L		09/27/22 06:03	09/27/22 23:36	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/27/22 06:03	09/27/22 23:36	1
Sodium	**19**		0.50	0.20	mg/L		09/27/22 06:03	09/27/22 23:36	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/27/22 06:03	09/27/22 23:36	1

Client Sample ID: MCM-02

Date Collected: 09/21/22 13:56
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221590-2

Matrix: Water

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/29/22 10:35	09/30/22 10:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**5.9**		5.0	2.2	mg/L			09/27/22 21:37	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**5.9**		5.0	5.0	mg/L			09/27/22 21:37	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 21:37	1
Total Dissolved Solids (SM 2540C-2011)	**90**		10	10	mg/L			09/26/22 13:05	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.14**				SU			09/21/22 13:56	1

Client Sample ID: MCM-04

Date Collected: 09/21/22 15:20
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221590-3

Matrix: Water

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**47**		1.0	0.20	mg/L			10/08/22 00:02	1
Fluoride	<0.040		0.10	0.040	mg/L			10/08/22 00:02	1
Sulfate	**52**		1.0	0.40	mg/L			10/08/22 00:02	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 23:38	5
Barium	**0.029**		0.010	0.00089	mg/L		09/29/22 10:24	09/30/22 17:27	1
Arsenic	**0.0017**	**J**	0.0063	0.0012	mg/L		10/02/22 11:35	10/03/22 23:38	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/29/22 10:24	09/30/22 17:27	1
Boron	**0.19**	**J**	0.40	0.0012	mg/L		10/02/22 11:35	10/03/22 23:38	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/29/22 10:24	09/30/22 17:27	1
Calcium	**7.8**		0.50	0.14	mg/L		09/29/22 10:24	09/30/22 17:27	1
Chromium	**0.0015**	**J**	0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 23:38	5
Cobalt	**0.0025**		0.0025	0.00022	mg/L		09/29/22 10:24	09/30/22 17:27	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 23:38	5
Iron	**2.4**		0.10	0.026	mg/L		09/29/22 10:24	09/30/22 17:27	1
Lithium	<0.0049		0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 23:38	5
Magnesium	**2.4**		0.50	0.023	mg/L		09/29/22 10:24	09/30/22 17:27	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/29/22 10:24	09/30/22 17:27	1
Potassium	**7.7**		1.0	0.16	mg/L		09/29/22 10:24	09/30/22 17:27	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/29/22 10:24	09/30/22 17:27	1
Sodium	**39**		0.50	0.20	mg/L		09/29/22 10:24	09/30/22 17:27	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/29/22 10:24	09/30/22 17:27	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/29/22 10:35	09/30/22 10:57	1

Client Sample ID: MCM-04

Lab Sample ID: 680-221590-3

Date Collected: 09/21/22 15:20

Matrix: Water

Date Received: 09/23/22 10:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	12		5.0	2.2	mg/L			09/27/22 19:49	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	12		5.0	5.0	mg/L			09/27/22 19:49	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 19:49	1
Total Dissolved Solids (SM 2540C-2011)	180		40	40	mg/L			09/26/22 13:05	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.34				SU			09/21/22 15:20	1

Client Sample ID: MCM-05

Lab Sample ID: 680-221590-4

Date Collected: 09/21/22 15:20

Matrix: Water

Date Received: 09/23/22 10:40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1100		10	2.0	mg/L			10/09/22 10:33	10
Fluoride	0.48		0.10	0.040	mg/L			10/08/22 00:14	1
Sulfate	100		1.0	0.40	mg/L			10/08/22 00:14	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 23:41	5
Barium	0.014		0.010	0.00089	mg/L		09/27/22 06:03	09/27/22 23:09	1
Arsenic	0.0077		0.0063	0.0012	mg/L		10/02/22 11:35	10/03/22 23:41	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/27/22 06:03	09/27/22 23:09	1
Boron	0.61	B	0.40	0.0012	mg/L		10/02/22 11:35	10/03/22 23:41	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/27/22 06:03	09/27/22 23:09	1
Calcium	28		0.50	0.14	mg/L		09/27/22 06:03	09/27/22 23:09	1
Chromium	0.0016	J	0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 23:41	5
Cobalt	0.00026	J	0.0025	0.00022	mg/L		09/27/22 06:03	09/27/22 23:09	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 23:41	5
Iron	<0.026		0.10	0.026	mg/L		09/27/22 06:03	09/27/22 23:09	1
Lithium	0.018	J	0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 23:41	5
Magnesium	60		0.50	0.023	mg/L		09/27/22 06:03	09/27/22 23:09	1
Molybdenum	0.00095	J	0.015	0.00086	mg/L		09/27/22 06:03	09/27/22 23:09	1
Potassium	33		1.0	0.16	mg/L		09/27/22 06:03	09/27/22 23:09	1
Selenium	<0.0012	F1	0.0050	0.0012	mg/L		09/27/22 06:03	09/27/22 23:09	1
Sodium	620		5.0	2.0	mg/L		09/27/22 06:03	09/28/22 17:46	10
Thallium	<0.00026		0.0010	0.00026	mg/L		09/27/22 06:03	09/27/22 23:09	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/29/22 10:35	09/30/22 10:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	210		5.0	2.2	mg/L			09/27/22 21:08	1

Client Sample ID: MCM-05

Lab Sample ID: 680-221590-4

Date Collected: 09/21/22 15:20

Matrix: Water

Date Received: 09/23/22 10:40

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**210**		5.0	5.0	mg/L			09/27/22 21:08	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 21:08	1
Total Dissolved Solids (SM 2540C-2011)	**2100**		80	80	mg/L			09/27/22 12:02	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.93**				SU			09/21/22 15:20	1

Client Sample ID: MCM-07

Lab Sample ID: 680-221590-5

Date Collected: 09/21/22 10:50

Matrix: Water

Date Received: 09/23/22 10:40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6400**		100	20	mg/L			10/09/22 10:46	100
Fluoride	**0.18**		0.10	0.040	mg/L			10/08/22 00:27	1
Sulfate	**660**		100	40	mg/L			10/09/22 10:46	100

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 23:44	5
Barium	**0.12**		0.010	0.00089	mg/L		09/27/22 06:03	09/27/22 23:21	1
Arsenic	**0.010**		0.0063	0.0012	mg/L		10/02/22 11:35	10/03/22 23:44	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/27/22 06:03	09/27/22 23:21	1
Boron	**1.3**	**B**	0.40	0.0012	mg/L		10/02/22 11:35	10/03/22 23:44	5
Cadmium	**0.00020**	**J**	0.0025	0.000078	mg/L		09/27/22 06:03	09/27/22 23:21	1
Calcium	**190**		0.50	0.14	mg/L		09/27/22 06:03	09/27/22 23:21	1
Chromium	**0.0027**	**J**	0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 23:44	5
Cobalt	**0.00031**	**J**	0.0025	0.00022	mg/L		09/27/22 06:03	09/27/22 23:21	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 23:44	5
Iron	**0.033**	**J**	0.10	0.026	mg/L		09/27/22 06:03	09/27/22 23:21	1
Lithium	**0.020**	**J**	0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 23:44	5
Magnesium	**410**		0.50	0.023	mg/L		09/27/22 06:03	09/27/22 23:21	1
Molybdenum	**0.00095**	**J**	0.015	0.00086	mg/L		09/27/22 06:03	09/27/22 23:21	1
Potassium	**100**		1.0	0.16	mg/L		09/27/22 06:03	09/27/22 23:21	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/27/22 06:03	09/27/22 23:21	1
Sodium	**3100**		5.0	2.0	mg/L		09/27/22 06:03	09/28/22 17:58	10
Thallium	<0.00026		0.0010	0.00026	mg/L		09/27/22 06:03	09/27/22 23:21	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/29/22 10:35	09/30/22 11:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**300**		5.0	2.2	mg/L			09/27/22 20:45	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**300**		5.0	5.0	mg/L			09/27/22 20:45	1

Client Sample ID: MCM-07

Lab Sample ID: 680-221590-5

Date Collected: 09/21/22 10:50

Matrix: Water

Date Received: 09/23/22 10:40

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 20:45	1
Total Dissolved Solids (SM 2540C-2011)	**9400**		2000	2000	mg/L			09/27/22 12:02	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.27**				SU			09/21/22 10:50	1

Client Sample ID: MCM-11

Lab Sample ID: 680-221590-6

Date Collected: 09/21/22 11:26

Matrix: Water

Date Received: 09/23/22 10:40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**32**		1.0	0.20	mg/L			10/08/22 00:40	1
Fluoride	**0.11**		0.10	0.040	mg/L			10/08/22 00:40	1
Sulfate	**23**		1.0	0.40	mg/L			10/08/22 00:40	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 23:47	5
Barium	**0.040**		0.010	0.00089	mg/L		09/27/22 06:03	09/28/22 00:07	1
Arsenic	**0.013**		0.0063	0.0012	mg/L		10/02/22 11:35	10/03/22 23:47	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/27/22 06:03	09/28/22 00:07	1
Boron	**0.17**	**J**	0.40	0.0012	mg/L		10/02/22 11:35	10/03/22 23:47	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/27/22 06:03	09/28/22 00:07	1
Calcium	**7.6**		0.50	0.14	mg/L		09/27/22 06:03	09/28/22 00:07	1
Chromium	**0.0015**	**J**	0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 23:47	5
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/27/22 06:03	09/28/22 00:07	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 23:47	5
Iron	**7.0**		0.10	0.026	mg/L		09/27/22 06:03	09/28/22 00:07	1
Lithium	<0.0049		0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 23:47	5
Magnesium	**1.8**		0.50	0.023	mg/L		09/27/22 06:03	09/28/22 00:07	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/27/22 06:03	09/28/22 00:07	1
Potassium	**0.69**	**J**	1.0	0.16	mg/L		09/27/22 06:03	09/28/22 00:07	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/27/22 06:03	09/28/22 00:07	1
Sodium	**23**		0.50	0.20	mg/L		09/27/22 06:03	09/28/22 00:07	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/27/22 06:03	09/28/22 00:07	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/29/22 10:35	09/30/22 11:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**26**		5.0	2.2	mg/L			09/27/22 21:23	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**26**		5.0	5.0	mg/L			09/27/22 21:23	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 21:23	1

Client Sample ID: MCM-11

Date Collected: 09/21/22 11:26
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221590-6
Matrix: Water

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C-2011)	**110**		10	10	mg/L			09/27/22 12:02	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.97**				SU			09/21/22 11:26	1

Client Sample ID: MCM-12

Date Collected: 09/21/22 11:10
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221590-7
Matrix: Water

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**400**		5.0	1.0	mg/L			10/08/22 01:56	5
Fluoride	**1.3**		0.50	0.20	mg/L			10/08/22 01:56	5
Sulfate	<2.0		5.0	2.0	mg/L			10/08/22 01:56	5

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 20:01	5
Barium	**0.068**		0.010	0.00089	mg/L		09/27/22 06:03	09/28/22 00:03	1
Arsenic	<0.0012		0.0063	0.0012	mg/L		10/02/22 11:35	10/03/22 20:01	5
Beryllium	**0.0011**	**J**	0.0025	0.00020	mg/L		09/27/22 06:03	09/28/22 00:03	1
Boron	**1.3**		0.40	0.0012	mg/L		10/02/22 11:35	10/03/22 20:01	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/27/22 06:03	09/28/22 00:03	1
Calcium	**4.7**		0.50	0.14	mg/L		09/27/22 06:03	09/28/22 00:03	1
Chromium	**0.0077**	**J**	0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 20:01	5
Cobalt	**0.00042**	**J**	0.0025	0.00022	mg/L		09/27/22 06:03	09/28/22 00:03	1
Lead	**0.00083**	**J**	0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 20:01	5
Iron	**0.17**		0.10	0.026	mg/L		09/27/22 06:03	09/28/22 00:03	1
Lithium	**0.0075**	**J**	0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 20:01	5
Magnesium	**8.7**		0.50	0.023	mg/L		09/27/22 06:03	09/28/22 00:03	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/27/22 06:03	09/28/22 00:03	1
Potassium	**19**		1.0	0.16	mg/L		09/27/22 06:03	09/28/22 00:03	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/27/22 06:03	09/28/22 00:03	1
Sodium	**400**		0.50	0.20	mg/L		09/27/22 06:03	09/28/22 00:03	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/27/22 06:03	09/28/22 00:03	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/29/22 10:35	09/30/22 11:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**450**		5.0	2.2	mg/L			09/27/22 21:17	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**450**		5.0	5.0	mg/L			09/27/22 21:17	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 21:17	1
Total Dissolved Solids (SM 2540C-2011)	**1300**		40	40	mg/L			09/27/22 12:02	1

Client Sample ID: MCM-12

Date Collected: 09/21/22 11:10
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221590-7

Matrix: Water

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.30**				SU			09/21/22 11:10	1

Client Sample ID: MCM-14

Date Collected: 09/21/22 14:00
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221590-8

Matrix: Water

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3300**		100	20	mg/L			10/09/22 10:58	100
Fluoride	**0.12**		0.10	0.040	mg/L			10/08/22 02:08	1
Sulfate	**270**		100	40	mg/L			10/09/22 10:58	100

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 19:46	5
Barium	**0.059**		0.010	0.00089	mg/L		09/27/22 06:03	09/27/22 23:25	1
Arsenic	<0.0012		0.0063	0.0012	mg/L		10/02/22 11:35	10/03/22 19:46	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/27/22 06:03	09/27/22 23:25	1
Boron	**1.0**	**B**	0.40	0.0012	mg/L		10/02/22 11:35	10/03/22 19:46	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/27/22 06:03	09/27/22 23:25	1
Calcium	**74**		0.50	0.14	mg/L		09/27/22 06:03	09/27/22 23:25	1
Chromium	**0.0015**	**J**	0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 19:46	5
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/27/22 06:03	09/27/22 23:25	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 19:46	5
Iron	<0.026		0.10	0.026	mg/L		09/27/22 06:03	09/27/22 23:25	1
Lithium	**0.028**		0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 19:46	5
Magnesium	**150**		0.50	0.023	mg/L		09/27/22 06:03	09/27/22 23:25	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/27/22 06:03	09/27/22 23:25	1
Potassium	**61**		1.0	0.16	mg/L		09/27/22 06:03	09/27/22 23:25	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/27/22 06:03	09/27/22 23:25	1
Sodium	**1600**		5.0	2.0	mg/L		09/27/22 06:03	09/28/22 18:01	10
Thallium	<0.00026		0.0010	0.00026	mg/L		09/27/22 06:03	09/27/22 23:25	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/29/22 10:35	09/30/22 11:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**210**		5.0	2.2	mg/L			09/27/22 19:56	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**210**		5.0	5.0	mg/L			09/27/22 19:56	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 19:56	1
Total Dissolved Solids (SM 2540C-2011)	**7400**		400	400	mg/L			09/27/22 12:02	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.61**				SU			09/21/22 14:00	1

Client Sample ID: MCM-15

Lab Sample ID: 680-221590-9

Date Collected: 09/21/22 16:45

Matrix: Water

Date Received: 09/23/22 10:40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3.3**		1.0	0.20	mg/L			10/08/22 02:21	1
Fluoride	<0.040		0.10	0.040	mg/L			10/08/22 02:21	1
Sulfate	**6.3**		1.0	0.40	mg/L			10/08/22 02:21	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 20:04	5
Barium	**0.022**		0.010	0.00089	mg/L		09/27/22 06:03	09/28/22 00:15	1
Arsenic	**0.0044**	**J**	0.0063	0.0012	mg/L		10/02/22 11:35	10/03/22 20:04	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/27/22 06:03	09/28/22 00:15	1
Boron	**0.14**	**J**	0.40	0.0012	mg/L		10/02/22 11:35	10/03/22 20:04	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/27/22 06:03	09/28/22 00:15	1
Calcium	**0.83**		0.50	0.14	mg/L		09/27/22 06:03	09/28/22 00:15	1
Chromium	**0.0020**	**J**	0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 20:04	5
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/27/22 06:03	09/28/22 00:15	1
Lead	**0.00092**	**J**	0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 20:04	5
Iron	**0.46**		0.10	0.026	mg/L		09/27/22 06:03	09/28/22 00:15	1
Lithium	<0.0049		0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 20:04	5
Magnesium	**0.33**	**J**	0.50	0.023	mg/L		09/27/22 06:03	09/28/22 00:15	1
Molybdenum	**0.00094**	**J**	0.015	0.00086	mg/L		09/27/22 06:03	09/28/22 00:15	1
Potassium	**7.3**		1.0	0.16	mg/L		09/27/22 06:03	09/28/22 00:15	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/27/22 06:03	09/28/22 00:15	1
Sodium	**2.6**		0.50	0.20	mg/L		09/27/22 06:03	09/28/22 00:15	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/27/22 06:03	09/28/22 00:15	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/29/22 10:35	09/30/22 11:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**6.7**		5.0	2.2	mg/L			09/27/22 20:02	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**6.7**		5.0	5.0	mg/L			09/27/22 20:02	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 20:02	1
Total Dissolved Solids (SM 2540C-2011)	**38**		10	10	mg/L			09/27/22 12:02	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.23**				SU			09/21/22 16:45	1

Client Sample ID: MCM-16

Lab Sample ID: 680-221590-10

Date Collected: 09/21/22 17:00

Matrix: Water

Date Received: 09/23/22 10:40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**17**		1.0	0.20	mg/L			10/08/22 01:18	1
Fluoride	<0.040		0.10	0.040	mg/L			10/08/22 01:18	1

Client Sample ID: MCM-16

Date Collected: 09/21/22 17:00
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221590-10

Matrix: Water

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**24**		1.0	0.40	mg/L			10/08/22 01:18	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 20:08	5
Barium	**0.11**		0.010	0.00089	mg/L		09/27/22 06:03	09/27/22 23:48	1
Arsenic	<0.0012		0.0063	0.0012	mg/L		10/02/22 11:35	10/03/22 20:08	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/27/22 06:03	09/27/22 23:48	1
Boron	**0.12**	**J**	0.40	0.0012	mg/L		10/02/22 11:35	10/03/22 20:08	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/27/22 06:03	09/27/22 23:48	1
Calcium	**4.6**		0.50	0.14	mg/L		09/27/22 06:03	09/27/22 23:48	1
Chromium	**0.0015**	**J**	0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 20:08	5
Cobalt	**0.00024**	**J**	0.0025	0.00022	mg/L		09/27/22 06:03	09/27/22 23:48	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 20:08	5
Iron	**1.7**		0.10	0.026	mg/L		09/27/22 06:03	09/27/22 23:48	1
Lithium	<0.0049		0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 20:08	5
Magnesium	**2.3**		0.50	0.023	mg/L		09/27/22 06:03	09/27/22 23:48	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/27/22 06:03	09/27/22 23:48	1
Potassium	**1.0**		1.0	0.16	mg/L		09/27/22 06:03	09/27/22 23:48	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/27/22 06:03	09/27/22 23:48	1
Sodium	**11**		0.50	0.20	mg/L		09/27/22 06:03	09/27/22 23:48	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/27/22 06:03	09/27/22 23:48	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/29/22 10:35	09/30/22 11:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**3.4**	**J**	5.0	2.2	mg/L			09/27/22 20:23	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 20:23	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 20:23	1
Total Dissolved Solids (SM 2540C-2011)	**78**		10	10	mg/L			09/27/22 12:02	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.91**				SU			09/21/22 17:00	1

Client Sample ID: MCM-17

Date Collected: 09/21/22 18:45
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221590-11

Matrix: Water

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3300**		100	20	mg/L			10/09/22 11:10	100
Fluoride	**0.78**		0.20	0.080	mg/L			10/08/22 02:34	2
Sulfate	**330**		2.0	0.80	mg/L			10/08/22 02:34	2

Client Sample ID: MCM-17

Lab Sample ID: 680-221590-11

Date Collected: 09/21/22 18:45

Matrix: Water

Date Received: 09/23/22 10:40

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 20:11	5
Barium	**0.089**		0.010	0.00089	mg/L		09/27/22 06:03	09/27/22 23:52	1
Arsenic	<0.0012		0.0063	0.0012	mg/L		10/02/22 11:35	10/03/22 20:11	5
Beryllium	**0.00029**	**J**	0.0025	0.00020	mg/L		09/27/22 06:03	09/27/22 23:52	1
Boron	**1.8**		0.40	0.0012	mg/L		10/02/22 11:35	10/03/22 20:11	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/27/22 06:03	09/27/22 23:52	1
Calcium	**110**		0.50	0.14	mg/L		09/27/22 06:03	09/27/22 23:52	1
Chromium	**0.0063**	**J**	0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 20:11	5
Cobalt	**0.00025**	**J**	0.0025	0.00022	mg/L		09/27/22 06:03	09/27/22 23:52	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 20:11	5
Iron	**0.034**	**J**	0.10	0.026	mg/L		09/27/22 06:03	09/27/22 23:52	1
Lithium	**0.023**	**J**	0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 20:11	5
Magnesium	**170**		0.50	0.023	mg/L		09/27/22 06:03	09/27/22 23:52	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/27/22 06:03	09/27/22 23:52	1
Potassium	**86**		1.0	0.16	mg/L		09/27/22 06:03	09/27/22 23:52	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/27/22 06:03	09/27/22 23:52	1
Sodium	**1800**		5.0	2.0	mg/L		09/27/22 06:03	09/28/22 18:05	10
Thallium	<0.00026		0.0010	0.00026	mg/L		09/27/22 06:03	09/27/22 23:52	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/29/22 10:35	09/30/22 11:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**570**		5.0	2.2	mg/L			09/27/22 21:44	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**570**		5.0	5.0	mg/L			09/27/22 21:44	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 21:44	1
Total Dissolved Solids (SM 2540C-2011)	**6200**		400	400	mg/L			09/27/22 12:02	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.72**				SU			09/21/22 18:45	1

Client Sample ID: DUP-2

Lab Sample ID: 680-221590-12

Date Collected: 09/21/22 00:00

Matrix: Water

Date Received: 09/23/22 10:40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3.0**		1.0	0.20	mg/L			10/08/22 03:12	1
Fluoride	<0.040		0.10	0.040	mg/L			10/08/22 03:12	1
Sulfate	**5.9**		1.0	0.40	mg/L			10/08/22 03:12	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 20:38	5
Barium	**0.022**		0.010	0.00089	mg/L		09/27/22 06:03	09/27/22 23:59	1

Client Sample ID: DUP-2

Date Collected: 09/21/22 00:00
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221590-12
Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0030**	**J**	0.0063	0.0012	mg/L		10/02/22 11:35	10/07/22 21:30	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/27/22 06:03	09/27/22 23:59	1
Boron	**0.036**	**J B**	0.40	0.0012	mg/L		10/02/22 11:35	10/07/22 21:30	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/27/22 06:03	09/27/22 23:59	1
Calcium	**0.86**		0.50	0.14	mg/L		09/27/22 06:03	09/27/22 23:59	1
Chromium	**0.0018**	**J**	0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 20:38	5
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/27/22 06:03	09/27/22 23:59	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 20:38	5
Iron	**0.45**		0.10	0.026	mg/L		09/27/22 06:03	09/27/22 23:59	1
Lithium	<0.0049		0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 20:38	5
Magnesium	**0.33**	**J**	0.50	0.023	mg/L		09/27/22 06:03	09/27/22 23:59	1
Molybdenum	**0.00094**	**J**	0.015	0.00086	mg/L		09/27/22 06:03	09/27/22 23:59	1
Potassium	**7.5**		1.0	0.16	mg/L		09/27/22 06:03	09/27/22 23:59	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/27/22 06:03	09/27/22 23:59	1
Sodium	**2.7**		0.50	0.20	mg/L		09/27/22 06:03	09/27/22 23:59	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/27/22 06:03	09/27/22 23:59	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/29/22 10:35	09/30/22 11:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**7.1**		5.0	2.2	mg/L			09/27/22 21:50	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**7.1**		5.0	5.0	mg/L			09/27/22 21:50	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 21:50	1
Total Dissolved Solids (SM 2540C-2011)	**38**		10	10	mg/L			09/27/22 12:02	1

Client Sample ID: FB-2

Date Collected: 09/21/22 17:25
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221590-13
Matrix: Water

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/08/22 03:24	1
Fluoride	<0.040		0.10	0.040	mg/L			10/08/22 03:24	1
Sulfate	<0.40		1.0	0.40	mg/L			10/08/22 03:24	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 20:41	5
Barium	<0.00089		0.010	0.00089	mg/L		09/27/22 06:03	09/28/22 00:11	1
Arsenic	<0.0012		0.0063	0.0012	mg/L		10/02/22 11:35	10/07/22 21:33	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/27/22 06:03	09/28/22 00:11	1
Boron	**0.025**	**J**	0.40	0.0012	mg/L		10/02/22 11:35	10/03/22 20:41	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/27/22 06:03	09/28/22 00:11	1
Calcium	<0.14		0.50	0.14	mg/L		09/27/22 06:03	09/28/22 00:11	1
Chromium	**0.0010**	**J**	0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 20:41	5

Client Sample ID: FB-2

Lab Sample ID: 680-221590-13

Date Collected: 09/21/22 17:25

Matrix: Water

Date Received: 09/23/22 10:40

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/27/22 06:03	09/28/22 00:11	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 20:41	5
Iron	<0.026		0.10	0.026	mg/L		09/27/22 06:03	09/28/22 00:11	1
Lithium	<0.0049		0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 20:41	5
Magnesium	<0.023		0.50	0.023	mg/L		09/27/22 06:03	09/28/22 00:11	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/27/22 06:03	09/28/22 00:11	1
Potassium	<0.16		1.0	0.16	mg/L		09/27/22 06:03	09/28/22 00:11	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/27/22 06:03	09/28/22 00:11	1
Sodium	<0.20		0.50	0.20	mg/L		09/27/22 06:03	09/28/22 00:11	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/27/22 06:03	09/28/22 00:11	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/29/22 10:35	09/30/22 11:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	<2.2		5.0	2.2	mg/L			09/27/22 21:55	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 21:55	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 21:55	1
Total Dissolved Solids (SM 2540C-2011)	<10		10	10	mg/L			09/27/22 12:02	1

Client Sample ID: EB-2

Lab Sample ID: 680-221590-14

Date Collected: 09/21/22 17:35

Matrix: Water

Date Received: 09/23/22 10:40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/08/22 03:37	1
Fluoride	<0.040		0.10	0.040	mg/L			10/08/22 03:37	1
Sulfate	<0.40		1.0	0.40	mg/L			10/08/22 03:37	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 20:45	5
Barium	<0.00089		0.010	0.00089	mg/L		09/27/22 06:03	09/27/22 23:32	1
Arsenic	<0.0012		0.0063	0.0012	mg/L		10/02/22 11:35	10/07/22 21:36	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/27/22 06:03	09/27/22 23:32	1
Boron	**0.021**	**J**	0.40	0.0012	mg/L		10/02/22 11:35	10/03/22 20:45	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/27/22 06:03	09/27/22 23:32	1
Calcium	<0.14		0.50	0.14	mg/L		09/27/22 06:03	09/27/22 23:32	1
Chromium	<0.0010		0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 20:45	5
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/27/22 06:03	09/27/22 23:32	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 20:45	5
Iron	<0.026		0.10	0.026	mg/L		09/27/22 06:03	09/27/22 23:32	1
Lithium	<0.0049		0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 20:45	5
Magnesium	<0.023		0.50	0.023	mg/L		09/27/22 06:03	09/27/22 23:32	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/27/22 06:03	09/27/22 23:32	1

Client Sample ID: EB-2

Lab Sample ID: 680-221590-14

Date Collected: 09/21/22 17:35

Matrix: Water

Date Received: 09/23/22 10:40

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	<0.16		1.0	0.16	mg/L		09/27/22 06:03	09/27/22 23:32	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/27/22 06:03	09/27/22 23:32	1
Sodium	<0.20		0.50	0.20	mg/L		09/27/22 06:03	09/27/22 23:32	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/27/22 06:03	09/27/22 23:32	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/29/22 10:35	09/30/22 11:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	<2.2		5.0	2.2	mg/L			09/27/22 22:05	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 22:05	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 22:05	1
Total Dissolved Solids (SM 2540C-2011)	<10		10	10	mg/L			09/27/22 12:02	1

Client Sample ID: PT-04D

Lab Sample ID: 680-221590-15

Date Collected: 09/21/22 14:00

Matrix: Water

Date Received: 09/23/22 10:40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6200**		100	20	mg/L			10/09/22 11:23	100
Fluoride	<1.0		2.5	1.0	mg/L			10/08/22 02:46	25
Sulfate	**750**		25	10	mg/L			10/08/22 02:46	25

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0041**		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 20:48	5
Iron	<0.079		0.13	0.079	mg/L		10/02/22 11:35	10/03/22 20:48	5

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	<0.026		0.10	0.026	mg/L		09/27/22 11:35	09/29/22 17:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C-2011)	**11000**		2000	2000	mg/L			09/27/22 12:02	1
Sulfide (SM 4500 S2 F-2011)	**23**		0.83	0.83	mg/L			09/26/22 10:22	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**7.20**				SU			09/21/22 14:00	1

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 680-743228/2
Matrix: Water
Analysis Batch: 743228

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/03/22 10:21	1
Fluoride	<0.040		0.10	0.040	mg/L			10/03/22 10:21	1
Sulfate	<0.40		1.0	0.40	mg/L			10/03/22 10:21	1

Lab Sample ID: LCS 680-743228/3
Matrix: Water
Analysis Batch: 743228

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.4		mg/L		104	90 - 110
Fluoride	2.00	2.06		mg/L		103	90 - 110
Sulfate	10.0	10.4		mg/L		104	90 - 110

Lab Sample ID: LCSD 680-743228/4
Matrix: Water
Analysis Batch: 743228

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.4		mg/L		104	90 - 110	0	15
Fluoride	2.00	2.07		mg/L		103	90 - 110	0	15
Sulfate	10.0	10.4		mg/L		104	90 - 110	0	15

Lab Sample ID: 680-221244-A-3 MSD
Matrix: Water
Analysis Batch: 743228

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	11		10.0	21.2		mg/L		106	80 - 120	0	15
Fluoride	0.24		2.00	2.37		mg/L		106	80 - 120	0	15
Sulfate	4.9		10.0	14.6		mg/L		96	80 - 120	1	15

Lab Sample ID: 680-221244-AS-3 MS
Matrix: Water
Analysis Batch: 743228

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	11		10.0	21.2		mg/L		106	80 - 120
Fluoride	0.24		2.00	2.37		mg/L		107	80 - 120
Sulfate	4.9		10.0	14.7		mg/L		97	80 - 120

Lab Sample ID: MB 680-743856/2
Matrix: Water
Analysis Batch: 743856

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/06/22 10:55	1
Fluoride	<0.040		0.10	0.040	mg/L			10/06/22 10:55	1
Sulfate	<0.40		1.0	0.40	mg/L			10/06/22 10:55	1

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 680-743856/3
Matrix: Water
Analysis Batch: 743856

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			10.0	9.96		mg/L		100	90 - 110		
Fluoride			2.00	2.14		mg/L		107	90 - 110		
Sulfate			10.0	9.94		mg/L		99	90 - 110		

Lab Sample ID: LCSD 680-743856/4
Matrix: Water
Analysis Batch: 743856

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			10.0	9.94		mg/L		99	90 - 110	0	15
Fluoride			2.00	2.17		mg/L		108	90 - 110	1	15
Sulfate			10.0	9.98		mg/L		100	90 - 110	0	15

Lab Sample ID: 680-221851-C-8 MS
Matrix: Water
Analysis Batch: 743856

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	50		10.0	60.5	4	mg/L		102	80 - 120		
Fluoride	0.66	F1	2.00	3.11	F1	mg/L		122	80 - 120		
Sulfate	7.1		10.0	17.3		mg/L		101	80 - 120		

Lab Sample ID: 680-221851-C-8 MSD
Matrix: Water
Analysis Batch: 743856

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	50		10.0	60.3	4	mg/L		100	80 - 120	0	15
Fluoride	0.66	F1	2.00	2.82		mg/L		108	80 - 120	10	15
Sulfate	7.1		10.0	17.1		mg/L		100	80 - 120	1	15

Lab Sample ID: MB 680-743937/2
Matrix: Water
Analysis Batch: 743937

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/06/22 14:13	1
Fluoride	<0.040		0.10	0.040	mg/L			10/06/22 14:13	1
Sulfate	<0.40		1.0	0.40	mg/L			10/06/22 14:13	1

Lab Sample ID: LCS 680-743937/3
Matrix: Water
Analysis Batch: 743937

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			10.0	10.2		mg/L		102	90 - 110		
Fluoride			2.00	2.04		mg/L		102	90 - 110		
Sulfate			10.0	9.75		mg/L		97	90 - 110		

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 680-743937/4
Matrix: Water
Analysis Batch: 743937

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			10.0	10.2		mg/L		102	90 - 110	0	15
Fluoride			2.00	2.05		mg/L		102	90 - 110	0	15
Sulfate			10.0	9.83		mg/L		98	90 - 110	1	15

Lab Sample ID: 190-29941-A-5 MS
Matrix: Water
Analysis Batch: 743937

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	76		10.0	86.1	4	mg/L		102	80 - 120		
Fluoride	0.51		2.00	2.65		mg/L		107	80 - 120		
Sulfate	24		10.0	33.7		mg/L		100	80 - 120		

Lab Sample ID: 190-29941-A-5 MSD
Matrix: Water
Analysis Batch: 743937

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	76		10.0	86.3	4	mg/L		104	80 - 120	0	15
Fluoride	0.51		2.00	2.67		mg/L		108	80 - 120	1	15
Sulfate	24		10.0	33.8		mg/L		101	80 - 120	0	15

Lab Sample ID: MB 680-744183/41
Matrix: Water
Analysis Batch: 744183

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/07/22 21:43	1
Fluoride	<0.040		0.10	0.040	mg/L			10/07/22 21:43	1
Sulfate	<0.40		1.0	0.40	mg/L			10/07/22 21:43	1

Lab Sample ID: LCS 680-744183/42
Matrix: Water
Analysis Batch: 744183

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			10.0	10.1		mg/L		101	90 - 110		
Fluoride			2.00	1.99		mg/L		100	90 - 110		
Sulfate			10.0	9.74		mg/L		97	90 - 110		

Lab Sample ID: LCSD 680-744183/43
Matrix: Water
Analysis Batch: 744183

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			10.0	10.1		mg/L		101	90 - 110	0	15
Fluoride			2.00	1.99		mg/L		100	90 - 110	0	15
Sulfate			10.0	9.82		mg/L		98	90 - 110	1	15

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 190-29943-A-8 MS
Matrix: Water
Analysis Batch: 744183

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	160		10.0	164	4	mg/L		93	80 - 120
Fluoride	0.064	J	2.00	2.23		mg/L		108	80 - 120
Sulfate	20		10.0	31.0		mg/L		106	80 - 120

Lab Sample ID: 190-29943-A-8 MSD
Matrix: Water
Analysis Batch: 744183

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	160		10.0	164	4	mg/L		89	80 - 120	0	15
Fluoride	0.064	J	2.00	2.16		mg/L		105	80 - 120	3	15
Sulfate	20		10.0	30.7		mg/L		102	80 - 120	1	15

Lab Sample ID: 680-221590-10 MS
Matrix: Water
Analysis Batch: 744183

Client Sample ID: MCM-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	17		10.0	27.8		mg/L		104	80 - 120
Fluoride	<0.040		2.00	2.06		mg/L		103	80 - 120
Sulfate	24		10.0	34.3		mg/L		101	80 - 120

Lab Sample ID: 680-221590-10 MSD
Matrix: Water
Analysis Batch: 744183

Client Sample ID: MCM-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	17		10.0	27.9		mg/L		105	80 - 120	1	15
Fluoride	<0.040		2.00	2.09		mg/L		104	80 - 120	1	15
Sulfate	24		10.0	34.5		mg/L		102	80 - 120	1	15

Lab Sample ID: MB 680-744301/2
Matrix: Water
Analysis Batch: 744301

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/09/22 08:41	1
Fluoride	<0.040		0.10	0.040	mg/L			10/09/22 08:41	1
Sulfate	<0.40		1.0	0.40	mg/L			10/09/22 08:41	1

Lab Sample ID: LCS 680-744301/3
Matrix: Water
Analysis Batch: 744301

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.2		mg/L		102	90 - 110
Fluoride	2.00	2.04		mg/L		102	90 - 110
Sulfate	10.0	9.31		mg/L		93	90 - 110

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 680-744301/4
Matrix: Water
Analysis Batch: 744301

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			10.0	10.2		mg/L		102	90 - 110	0	15
Fluoride			2.00	2.05		mg/L		102	90 - 110	0	15
Sulfate			10.0	9.28		mg/L		93	90 - 110	0	15

Lab Sample ID: 660-123946-G-3 MS
Matrix: Water
Analysis Batch: 744301

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	23		10.0	33.6		mg/L		102	80 - 120
Fluoride	<0.040		2.00	2.16		mg/L		108	80 - 120
Sulfate	1.2		10.0	9.23		mg/L		80	80 - 120

Lab Sample ID: 660-123946-G-3 MSD
Matrix: Water
Analysis Batch: 744301

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	23		10.0	33.6		mg/L		101	80 - 120	0	15
Fluoride	<0.040		2.00	2.11		mg/L		106	80 - 120	2	15
Sulfate	1.2		10.0	9.28		mg/L		81	80 - 120	1	15

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 400-594662/1-A ^5
Matrix: Water
Analysis Batch: 595577

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 594662

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/01/22 11:45	10/07/22 22:50	5
Arsenic	<0.0012		0.0063	0.0012	mg/L		10/01/22 11:45	10/07/22 22:50	5
Iron	<0.079		0.63	0.079	mg/L		10/01/22 11:45	10/07/22 22:50	5
Boron	0.00232	J	0.40	0.0012	mg/L		10/01/22 11:45	10/07/22 22:50	5
Chromium	<0.0010		0.013	0.0010	mg/L		10/01/22 11:45	10/07/22 22:50	5
Lead	<0.00081		0.0063	0.00081	mg/L		10/01/22 11:45	10/07/22 22:50	5

Lab Sample ID: MB 400-594662/1-A ^5
Matrix: Water
Analysis Batch: 596288

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 594662

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.0049		0.025	0.0049	mg/L		10/01/22 11:45	10/13/22 20:57	5

Lab Sample ID: LCS 400-594662/2-A ^5
Matrix: Water
Analysis Batch: 595577

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 594662

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony			0.0500	0.0519		mg/L		104	80 - 120
Arsenic			0.0500	0.0486		mg/L		97	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 400-594662/2-A ^5
Matrix: Water
Analysis Batch: 595577

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 594662

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	5.00	4.81		mg/L		96	80 - 120
Boron	0.100	0.0953	J	mg/L		95	80 - 120
Lead	0.0500	0.0489		mg/L		98	80 - 120

Lab Sample ID: LCS 400-594662/2-A ^5
Matrix: Water
Analysis Batch: 596288

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 594662

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium	0.0500	0.0466		mg/L		93	80 - 120
Lithium	0.0500	0.0443		mg/L		89	80 - 120

Lab Sample ID: 680-221504-1 MS
Matrix: Water
Analysis Batch: 595577

Client Sample ID: MCM-18
Prep Type: Total Recoverable
Prep Batch: 594662

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.0015		0.0500	0.0520		mg/L		104	75 - 125
Arsenic	0.0026	J	0.0500	0.0524		mg/L		100	75 - 125
Iron	34000		5.00	37.9	4	mg/L		-6741 22	75 - 125
Boron	0.18	J B	0.100	0.283	J	mg/L		103	75 - 125
Chromium	<0.0010	*-	0.0500	0.0383		mg/L		77	75 - 125
Lead	<0.00081		0.0500	0.0496		mg/L		99	75 - 125

Lab Sample ID: 680-221504-1 MSD
Matrix: Water
Analysis Batch: 595577

Client Sample ID: MCM-18
Prep Type: Total Recoverable
Prep Batch: 594662

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.0015		0.0500	0.0522		mg/L		104	75 - 125	0	20
Arsenic	0.0026	J	0.0500	0.0522		mg/L		99	75 - 125	0	20
Iron	34000		5.00	37.6	4	mg/L		-6741 27	75 - 125	1	20
Boron	0.18	J B	0.100	0.276	J	mg/L		96	75 - 125	2	20
Chromium	<0.0010	*-	0.0500	0.0407		mg/L		81	75 - 125	6	20
Lead	<0.00081		0.0500	0.0499		mg/L		100	75 - 125	0	20

Lab Sample ID: MB 400-594690/1-A ^5
Matrix: Water
Analysis Batch: 594928

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 594690

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 21:46	5
Boron	0.155	J	0.40	0.0012	mg/L		10/02/22 11:35	10/03/22 21:46	5
Chromium	<0.0010		0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 21:46	5
Lead	<0.00081		0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 21:46	5
Lithium	<0.0049		0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 21:46	5

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 400-594690/2-A ^5
Matrix: Water
Analysis Batch: 594928

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 594690

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.0500	0.0496		mg/L		99	80 - 120
Chromium	0.0500	0.0448		mg/L		90	80 - 120
Lead	0.0500	0.0468		mg/L		94	80 - 120
Lithium	0.0500	0.0441		mg/L		88	80 - 120

Lab Sample ID: MB 400-594691/1-A ^5
Matrix: Water
Analysis Batch: 594928

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 594691

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 19:15	5
Arsenic	<0.0012		0.0063	0.0012	mg/L		10/02/22 11:35	10/03/22 19:15	5
Iron	<0.079		0.63	0.079	mg/L		10/02/22 11:35	10/03/22 19:15	5
Chromium	<0.0010		0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 19:15	5
Lead	<0.00081		0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 19:15	5
Lithium	<0.0049		0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 19:15	5

Lab Sample ID: MB 400-594691/1-A ^5
Matrix: Water
Analysis Batch: 595577

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 594691

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.00156	J	0.40	0.0012	mg/L		10/02/22 11:35	10/07/22 21:11	5

Lab Sample ID: LCS 400-594691/2-A ^5
Matrix: Water
Analysis Batch: 594928

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 594691

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.0500	0.0512		mg/L		102	80 - 120
Arsenic	0.0500	0.0494		mg/L		99	80 - 120
Iron	5.00	4.61		mg/L		92	80 - 120
Chromium	0.0500	0.0482		mg/L		96	80 - 120
Lead	0.0500	0.0467		mg/L		93	80 - 120
Lithium	0.0500	0.0460		mg/L		92	80 - 120

Lab Sample ID: LCS 400-594691/2-A ^5
Matrix: Water
Analysis Batch: 595577

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 594691

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.100	0.0862	J	mg/L		86	80 - 120

Lab Sample ID: 680-221590-8 MS
Matrix: Water
Analysis Batch: 594928

Client Sample ID: MCM-14
Prep Type: Total Recoverable
Prep Batch: 594691

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.0015		0.0500	0.0525		mg/L		105	75 - 125
Iron	<79		5.00	4.57	4	mg/L		91	75 - 125

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 680-221590-8 MS
Matrix: Water
Analysis Batch: 594928

Client Sample ID: MCM-14
Prep Type: Total Recoverable
Prep Batch: 594691

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1.0	B	0.100	1.21	4	mg/L		178	75 - 125
Chromium	0.0015	J	0.0500	0.0482		mg/L		93	75 - 125
Lead	<0.00081		0.0500	0.0485		mg/L		97	75 - 125
Lithium	0.028		0.0500	0.0755		mg/L		95	75 - 125

Lab Sample ID: 680-221590-8 MSD
Matrix: Water
Analysis Batch: 594928

Client Sample ID: MCM-14
Prep Type: Total Recoverable
Prep Batch: 594691

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.0015		0.0500	0.0508		mg/L		102	75 - 125	3	20
Iron	<79		5.00	4.38	4	mg/L		88	75 - 125	4	20
Boron	1.0	B	0.100	1.17	4	mg/L		139	75 - 125	3	20
Chromium	0.0015	J	0.0500	0.0453		mg/L		88	75 - 125	6	20
Lead	<0.00081		0.0500	0.0468		mg/L		94	75 - 125	4	20
Lithium	0.028		0.0500	0.0727		mg/L		90	75 - 125	4	20

Lab Sample ID: MB 680-741743/1-A
Matrix: Water
Analysis Batch: 741983

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 741743

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00089		0.010	0.00089	mg/L		09/22/22 14:18	09/23/22 20:38	1
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/22/22 14:18	09/23/22 20:38	1
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/22/22 14:18	09/23/22 20:38	1
Calcium	<0.14		0.50	0.14	mg/L		09/22/22 14:18	09/23/22 20:38	1
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/22/22 14:18	09/23/22 20:38	1
Iron	<0.026		0.10	0.026	mg/L		09/22/22 14:18	09/23/22 20:38	1
Magnesium	<0.023		0.50	0.023	mg/L		09/22/22 14:18	09/23/22 20:38	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/22/22 14:18	09/23/22 20:38	1
Potassium	<0.16		1.0	0.16	mg/L		09/22/22 14:18	09/23/22 20:38	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/22/22 14:18	09/23/22 20:38	1
Sodium	<0.20		0.50	0.20	mg/L		09/22/22 14:18	09/23/22 20:38	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/22/22 14:18	09/23/22 20:38	1

Lab Sample ID: LCS 680-741743/2-A
Matrix: Water
Analysis Batch: 741983

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 741743

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	0.100	0.0988		mg/L		99	80 - 120
Beryllium	0.0500	0.0485		mg/L		97	80 - 120
Cadmium	0.0500	0.0487		mg/L		97	80 - 120
Calcium	5.00	5.05		mg/L		101	80 - 120
Cobalt	0.0500	0.0507		mg/L		101	80 - 120
Iron	5.00	5.10		mg/L		102	80 - 120
Magnesium	5.01	4.88		mg/L		97	80 - 120
Molybdenum	0.100	0.0984		mg/L		98	80 - 120
Potassium	6.97	7.16		mg/L		103	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 680-741743/2-A
Matrix: Water
Analysis Batch: 741983

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 741743

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Selenium	0.100	0.101		mg/L		101	80 - 120
Sodium	5.05	4.92		mg/L		97	80 - 120
Thallium	0.0500	0.0480		mg/L		96	80 - 120

Lab Sample ID: 680-221513-C-1-B MS
Matrix: Water
Analysis Batch: 741983

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 741743

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	0.022		0.100	0.119		mg/L		98	75 - 125
Beryllium	<0.00020		0.0500	0.0559		mg/L		112	75 - 125
Cadmium	<0.000078		0.0500	0.0522		mg/L		104	75 - 125
Calcium	8.6		5.00	13.5		mg/L		100	75 - 125
Cobalt	<0.00022		0.0500	0.0576		mg/L		115	75 - 125
Iron	<0.026		5.00	5.82		mg/L		116	75 - 125
Magnesium	3.1		5.01	8.12		mg/L		99	75 - 125
Molybdenum	<0.00086		0.100	0.107		mg/L		107	75 - 125
Potassium	2.0		6.97	9.84		mg/L		112	75 - 125
Selenium	<0.0012		0.100	0.108		mg/L		108	75 - 125
Sodium	7.5		5.05	12.6		mg/L		101	75 - 125
Thallium	<0.00026		0.0500	0.0517		mg/L		103	75 - 125

Lab Sample ID: 680-221513-C-1-C MSD
Matrix: Water
Analysis Batch: 741983

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 741743

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Barium	0.022		0.100	0.114		mg/L		93	75 - 125	4	20
Beryllium	<0.00020		0.0500	0.0492		mg/L		98	75 - 125	13	20
Cadmium	<0.000078		0.0500	0.0493		mg/L		99	75 - 125	6	20
Calcium	8.6		5.00	12.9		mg/L		87	75 - 125	5	20
Cobalt	<0.00022		0.0500	0.0551		mg/L		110	75 - 125	4	20
Iron	<0.026		5.00	5.54		mg/L		111	75 - 125	5	20
Magnesium	3.1		5.01	7.55		mg/L		88	75 - 125	7	20
Molybdenum	<0.00086		0.100	0.103		mg/L		103	75 - 125	4	20
Potassium	2.0		6.97	9.30		mg/L		104	75 - 125	6	20
Selenium	<0.0012		0.100	0.105		mg/L		105	75 - 125	3	20
Sodium	7.5		5.05	12.0		mg/L		90	75 - 125	5	20
Thallium	<0.00026		0.0500	0.0501		mg/L		100	75 - 125	3	20

Lab Sample ID: MB 680-741757/1-A
Matrix: Water
Analysis Batch: 741983

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 741757

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00089		0.010	0.00089	mg/L		09/22/22 14:42	09/23/22 19:33	1
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/22/22 14:42	09/23/22 19:33	1
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/22/22 14:42	09/23/22 19:33	1
Calcium	<0.14		0.50	0.14	mg/L		09/22/22 14:42	09/23/22 19:33	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 680-741757/1-A
Matrix: Water
Analysis Batch: 741983

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 741757

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/22/22 14:42	09/23/22 19:33	1
Iron	<0.026		0.10	0.026	mg/L		09/22/22 14:42	09/23/22 19:33	1
Magnesium	<0.023		0.50	0.023	mg/L		09/22/22 14:42	09/23/22 19:33	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/22/22 14:42	09/23/22 19:33	1
Potassium	<0.16		1.0	0.16	mg/L		09/22/22 14:42	09/23/22 19:33	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/22/22 14:42	09/23/22 19:33	1
Sodium	<0.20		0.50	0.20	mg/L		09/22/22 14:42	09/23/22 19:33	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/22/22 14:42	09/23/22 19:33	1

Lab Sample ID: LCS 680-741757/2-A
Matrix: Water
Analysis Batch: 741983

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 741757

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	0.100	0.100		mg/L		100	80 - 120
Beryllium	0.0500	0.0508		mg/L		102	80 - 120
Cadmium	0.0500	0.0494		mg/L		99	80 - 120
Calcium	5.00	5.16		mg/L		103	80 - 120
Cobalt	0.0500	0.0525		mg/L		105	80 - 120
Iron	5.00	5.23		mg/L		105	80 - 120
Magnesium	5.01	4.96		mg/L		99	80 - 120
Molybdenum	0.100	0.0989		mg/L		99	80 - 120
Potassium	6.97	7.34		mg/L		105	80 - 120
Selenium	0.100	0.101		mg/L		101	80 - 120
Sodium	5.05	5.02		mg/L		99	80 - 120
Thallium	0.0500	0.0488		mg/L		98	80 - 120

Lab Sample ID: 680-221504-1 MS
Matrix: Water
Analysis Batch: 741983

Client Sample ID: MCM-18
Prep Type: Total Recoverable
Prep Batch: 741757

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	0.11		0.100	0.213		mg/L		100	75 - 125
Beryllium	0.0030		0.0500	0.0559		mg/L		106	75 - 125
Cadmium	0.00078	J	0.0500	0.0508		mg/L		100	75 - 125
Calcium	20		5.00	24.9		mg/L		102	75 - 125
Cobalt	<0.00022		0.0500	0.0517		mg/L		104	75 - 125
Iron	32		5.00	37.4	4	mg/L		98	75 - 125
Magnesium	62		5.01	65.9	4	mg/L		70	75 - 125
Molybdenum	<0.00086		0.100	0.103		mg/L		103	75 - 125
Potassium	9.0		6.97	15.9		mg/L		100	75 - 125
Selenium	<0.0012		0.100	0.102		mg/L		102	75 - 125
Thallium	<0.00026		0.0500	0.0478		mg/L		96	75 - 125

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 680-221504-1 MS
Matrix: Water
Analysis Batch: 742343

Client Sample ID: MCM-18
Prep Type: Total Recoverable
Prep Batch: 741757

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	690		5.05	645	4	mg/L		-830	75 - 125

Lab Sample ID: 680-221504-1 MSD
Matrix: Water
Analysis Batch: 741983

Client Sample ID: MCM-18
Prep Type: Total Recoverable
Prep Batch: 741757

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Barium	0.11		0.100	0.206		mg/L		93	75 - 125	4	20
Beryllium	0.0030		0.0500	0.0528		mg/L		100	75 - 125	6	20
Cadmium	0.00078	J	0.0500	0.0491		mg/L		97	75 - 125	3	20
Calcium	20		5.00	23.6		mg/L		76	75 - 125	5	20
Cobalt	<0.00022		0.0500	0.0493		mg/L		99	75 - 125	5	20
Iron	32		5.00	35.1	4	mg/L		53	75 - 125	6	20
Magnesium	62		5.01	63.7	4	mg/L		24	75 - 125	3	20
Molybdenum	<0.00086		0.100	0.0982		mg/L		98	75 - 125	4	20
Potassium	9.0		6.97	15.2		mg/L		90	75 - 125	5	20
Selenium	<0.0012		0.100	0.0978		mg/L		98	75 - 125	4	20
Thallium	<0.00026		0.0500	0.0464		mg/L		93	75 - 125	3	20

Lab Sample ID: 680-221504-1 MSD
Matrix: Water
Analysis Batch: 742343

Client Sample ID: MCM-18
Prep Type: Total Recoverable
Prep Batch: 741757

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium	690		5.05	659	4	mg/L		-551	75 - 125	2	20

Lab Sample ID: MB 680-741803/1-A
Matrix: Water
Analysis Batch: 741983

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 741803

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	<0.026		0.10	0.026	mg/L		09/23/22 05:58	09/24/22 02:23	1

Lab Sample ID: LCS 680-741803/2-A
Matrix: Water
Analysis Batch: 741983

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 741803

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron, Dissolved	5.00	5.84		mg/L		117	80 - 120

Lab Sample ID: MB 680-741808/1-A
Matrix: Water
Analysis Batch: 741983

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 741808

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00089		0.010	0.00089	mg/L		09/23/22 07:50	09/24/22 03:20	1
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/23/22 07:50	09/24/22 03:20	1
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/23/22 07:50	09/24/22 03:20	1
Calcium	<0.14		0.50	0.14	mg/L		09/23/22 07:50	09/24/22 03:20	1
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/23/22 07:50	09/24/22 03:20	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 680-741808/1-A
Matrix: Water
Analysis Batch: 741983

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 741808

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.026		0.10	0.026	mg/L		09/23/22 07:50	09/24/22 03:20	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/23/22 07:50	09/24/22 03:20	1
Potassium	<0.16		1.0	0.16	mg/L		09/23/22 07:50	09/24/22 03:20	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/23/22 07:50	09/24/22 03:20	1
Sodium	<0.20		0.50	0.20	mg/L		09/23/22 07:50	09/24/22 03:20	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/23/22 07:50	09/24/22 03:20	1

Lab Sample ID: MB 680-741808/1-A
Matrix: Water
Analysis Batch: 742343

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 741808

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	<0.023		0.50	0.023	mg/L		09/23/22 07:50	09/26/22 17:05	1

Lab Sample ID: LCS 680-741808/2-A
Matrix: Water
Analysis Batch: 741983

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 741808

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	0.100	0.101		mg/L		101	80 - 120
Beryllium	0.0500	0.0516		mg/L		103	80 - 120
Cadmium	0.0500	0.0501		mg/L		100	80 - 120
Calcium	5.00	5.15		mg/L		103	80 - 120
Cobalt	0.0500	0.0531		mg/L		106	80 - 120
Iron	5.00	5.32		mg/L		106	80 - 120
Molybdenum	0.100	0.103		mg/L		103	80 - 120
Potassium	6.97	7.15		mg/L		103	80 - 120
Selenium	0.100	0.106		mg/L		106	80 - 120
Sodium	5.05	4.90		mg/L		97	80 - 120
Thallium	0.0500	0.0497		mg/L		99	80 - 120

Lab Sample ID: LCS 680-741808/2-A
Matrix: Water
Analysis Batch: 742343

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 741808

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Magnesium	5.01	5.16		mg/L		103	80 - 120

Lab Sample ID: 680-221525-C-1-B MS
Matrix: Water
Analysis Batch: 741983

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 741808

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	0.20		0.100	0.289		mg/L		92	75 - 125
Beryllium	<0.00020		0.0500	0.0498		mg/L		100	75 - 125
Cadmium	<0.000078		0.0500	0.0493		mg/L		99	75 - 125
Calcium	87		5.00	88.5	4	mg/L		37	75 - 125
Cobalt	0.0022	J	0.0500	0.0538		mg/L		103	75 - 125
Iron	5.6		5.00	11.1		mg/L		110	75 - 125
Molybdenum	0.0061	J	0.100	0.105		mg/L		98	75 - 125

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 680-221525-C-1-B MS
Matrix: Water
Analysis Batch: 741983

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 741808

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Potassium	3.0		6.97	10.2		mg/L		103	75 - 125
Selenium	<0.0012		0.100	0.100		mg/L		100	75 - 125
Sodium	19		5.05	24.6		mg/L		101	75 - 125
Thallium	<0.00026		0.0500	0.0472		mg/L		94	75 - 125

Lab Sample ID: 680-221525-C-1-B MS
Matrix: Water
Analysis Batch: 742343

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 741808

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Magnesium	33		5.01	36.4	4	mg/L		72	75 - 125

Lab Sample ID: 680-221525-C-1-C MSD
Matrix: Water
Analysis Batch: 741983

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 741808

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Barium	0.20		0.100	0.280		mg/L		83	75 - 125	3	20
Beryllium	<0.00020		0.0500	0.0487		mg/L		97	75 - 125	2	20
Cadmium	<0.000078		0.0500	0.0453		mg/L		91	75 - 125	8	20
Calcium	87		5.00	85.4	4	mg/L		-25	75 - 125	4	20
Cobalt	0.0022	J	0.0500	0.0515		mg/L		99	75 - 125	4	20
Iron	5.6		5.00	10.6		mg/L		100	75 - 125	5	20
Molybdenum	0.0061	J	0.100	0.101		mg/L		95	75 - 125	4	20
Potassium	3.0		6.97	9.84		mg/L		98	75 - 125	3	20
Selenium	<0.0012		0.100	0.0979		mg/L		98	75 - 125	2	20
Sodium	19		5.05	23.6		mg/L		82	75 - 125	4	20
Thallium	<0.00026		0.0500	0.0459		mg/L		92	75 - 125	3	20

Lab Sample ID: 680-221525-C-1-C MSD
Matrix: Water
Analysis Batch: 742343

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 741808

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Magnesium	33		5.01	34.9	4	mg/L		40	75 - 125	4	20

Lab Sample ID: MB 680-742309/1-A
Matrix: Water
Analysis Batch: 742503

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 742309

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00089		0.010	0.00089	mg/L		09/27/22 06:03	09/27/22 23:02	1
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/27/22 06:03	09/27/22 23:02	1
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/27/22 06:03	09/27/22 23:02	1
Calcium	<0.14		0.50	0.14	mg/L		09/27/22 06:03	09/27/22 23:02	1
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/27/22 06:03	09/27/22 23:02	1
Iron	<0.026		0.10	0.026	mg/L		09/27/22 06:03	09/27/22 23:02	1
Magnesium	<0.023		0.50	0.023	mg/L		09/27/22 06:03	09/27/22 23:02	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/27/22 06:03	09/27/22 23:02	1
Potassium	<0.16		1.0	0.16	mg/L		09/27/22 06:03	09/27/22 23:02	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 680-742309/1-A
Matrix: Water
Analysis Batch: 742503

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 742309

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	<0.0012		0.0050	0.0012	mg/L		09/27/22 06:03	09/27/22 23:02	1
Sodium	<0.20		0.50	0.20	mg/L		09/27/22 06:03	09/27/22 23:02	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/27/22 06:03	09/27/22 23:02	1

Lab Sample ID: LCS 680-742309/2-A
Matrix: Water
Analysis Batch: 742503

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 742309

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	0.100	0.103		mg/L		103	80 - 120
Beryllium	0.0500	0.0486		mg/L		97	80 - 120
Cadmium	0.0500	0.0532		mg/L		106	80 - 120
Calcium	5.00	5.30		mg/L		106	80 - 120
Cobalt	0.0500	0.0529		mg/L		106	80 - 120
Iron	5.00	5.48		mg/L		110	80 - 120
Magnesium	5.01	5.29		mg/L		106	80 - 120
Molybdenum	0.100	0.105		mg/L		105	80 - 120
Potassium	6.97	7.29		mg/L		105	80 - 120
Selenium	0.100	0.108		mg/L		108	80 - 120
Sodium	5.05	5.13		mg/L		102	80 - 120
Thallium	0.0500	0.0517		mg/L		103	80 - 120

Lab Sample ID: 680-221590-4 MS
Matrix: Water
Analysis Batch: 742503

Client Sample ID: MCM-05
Prep Type: Total Recoverable
Prep Batch: 742309

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	0.014		0.100	0.113		mg/L		99	75 - 125
Beryllium	<0.00020		0.0500	0.0455		mg/L		91	75 - 125
Cadmium	<0.000078		0.0500	0.0498		mg/L		100	75 - 125
Calcium	28		5.00	34.3	4	mg/L		118	75 - 125
Cobalt	0.00026	J	0.0500	0.0490		mg/L		98	75 - 125
Iron	<0.026		5.00	4.99		mg/L		100	75 - 125
Magnesium	60		5.01	63.6	4	mg/L		80	75 - 125
Molybdenum	0.00095	J	0.100	0.0995		mg/L		99	75 - 125
Potassium	33		6.97	38.4	4	mg/L		85	75 - 125
Selenium	<0.0012	F1	0.100	0.0507	F1	mg/L		51	75 - 125
Thallium	<0.00026		0.0500	0.0506		mg/L		101	75 - 125

Lab Sample ID: 680-221590-4 MS
Matrix: Water
Analysis Batch: 742780

Client Sample ID: MCM-05
Prep Type: Total Recoverable
Prep Batch: 742309

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	620		5.05	658	4	mg/L		814	75 - 125

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 680-221590-4 MSD
Matrix: Water
Analysis Batch: 742503

Client Sample ID: MCM-05
Prep Type: Total Recoverable
Prep Batch: 742309

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Barium	0.014		0.100	0.114		mg/L		100	75 - 125	0	20
Beryllium	<0.00020		0.0500	0.0459		mg/L		92	75 - 125	1	20
Cadmium	<0.000078		0.0500	0.0498		mg/L		100	75 - 125	0	20
Calcium	28		5.00	34.7	4	mg/L		126	75 - 125	1	20
Cobalt	0.00026	J	0.0500	0.0493		mg/L		98	75 - 125	1	20
Iron	<0.026		5.00	5.20		mg/L		104	75 - 125	4	20
Magnesium	60		5.01	65.6	4	mg/L		119	75 - 125	3	20
Molybdenum	0.00095	J	0.100	0.100		mg/L		99	75 - 125	1	20
Potassium	33		6.97	39.4	4	mg/L		98	75 - 125	2	20
Selenium	<0.0012	F1	0.100	0.0492	F1	mg/L		49	75 - 125	3	20
Thallium	<0.00026		0.0500	0.0508		mg/L		102	75 - 125	0	20

Lab Sample ID: 680-221590-4 MSD
Matrix: Water
Analysis Batch: 742780

Client Sample ID: MCM-05
Prep Type: Total Recoverable
Prep Batch: 742309

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium	620		5.05	597	4	mg/L		-398	75 - 125	10	20

Lab Sample ID: MB 680-742784/1-A
Matrix: Water
Analysis Batch: 743044

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 742784

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00089		0.010	0.00089	mg/L		09/29/22 10:24	09/30/22 17:08	1
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/29/22 10:24	09/30/22 17:08	1
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/29/22 10:24	09/30/22 17:08	1
Calcium	<0.14		0.50	0.14	mg/L		09/29/22 10:24	09/30/22 17:08	1
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/29/22 10:24	09/30/22 17:08	1
Iron	<0.026		0.10	0.026	mg/L		09/29/22 10:24	09/30/22 17:08	1
Magnesium	<0.023		0.50	0.023	mg/L		09/29/22 10:24	09/30/22 17:08	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/29/22 10:24	09/30/22 17:08	1
Potassium	<0.16		1.0	0.16	mg/L		09/29/22 10:24	09/30/22 17:08	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/29/22 10:24	09/30/22 17:08	1
Sodium	<0.20		0.50	0.20	mg/L		09/29/22 10:24	09/30/22 17:08	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/29/22 10:24	09/30/22 17:08	1

Lab Sample ID: LCS 680-742784/2-A
Matrix: Water
Analysis Batch: 743044

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 742784

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Barium			0.100	0.101		mg/L		101	80 - 120		
Beryllium			0.0500	0.0530		mg/L		106	80 - 120		
Cadmium			0.0500	0.0523		mg/L		105	80 - 120		
Calcium			5.00	5.29		mg/L		106	80 - 120		
Cobalt			0.0500	0.0539		mg/L		108	80 - 120		
Iron			5.00	5.35		mg/L		107	80 - 120		
Magnesium			5.01	5.45		mg/L		109	80 - 120		

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 680-742784/2-A
Matrix: Water
Analysis Batch: 743044

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 742784

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Molybdenum			0.100	0.104		mg/L		104	80 - 120		
Potassium			6.97	7.61		mg/L		109	80 - 120		
Selenium			0.100	0.105		mg/L		105	80 - 120		
Sodium			5.05	5.40		mg/L		107	80 - 120		
Thallium			0.0500	0.0514		mg/L		103	80 - 120		

Lab Sample ID: 680-221820-C-3-E MS
Matrix: Water
Analysis Batch: 743044

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 742784

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Barium	0.24		0.100	0.325		mg/L		87	75 - 125		
Beryllium	<0.00020		0.0500	0.0563		mg/L		113	75 - 125		
Cadmium	<0.000078		0.0500	0.0526		mg/L		105	75 - 125		
Calcium	130		5.00	124	4	mg/L		-74	75 - 125		
Cobalt	0.00037	J	0.0500	0.0540		mg/L		107	75 - 125		
Iron	1.5		5.00	6.51		mg/L		101	75 - 125		
Magnesium	47		5.01	48.9	4	mg/L		38	75 - 125		
Molybdenum	0.0022	J	0.100	0.108		mg/L		106	75 - 125		
Potassium	1.7		6.97	9.07		mg/L		106	75 - 125		
Selenium	<0.0012		0.100	0.104		mg/L		103	75 - 125		
Sodium	25		5.05	29.0	4	mg/L		75	75 - 125		
Thallium	<0.00026		0.0500	0.0544		mg/L		109	75 - 125		

Lab Sample ID: 680-221820-C-3-F MSD
Matrix: Water
Analysis Batch: 743044

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 742784

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Barium	0.24		0.100	0.342		mg/L		104	75 - 125	5	20
Beryllium	<0.00020		0.0500	0.0581		mg/L		116	75 - 125	3	20
Cadmium	<0.000078		0.0500	0.0545		mg/L		109	75 - 125	4	20
Calcium	130		5.00	133	4	mg/L		96	75 - 125	7	20
Cobalt	0.00037	J	0.0500	0.0549		mg/L		109	75 - 125	2	20
Iron	1.5		5.00	6.62		mg/L		103	75 - 125	2	20
Magnesium	47		5.01	51.0	4	mg/L		81	75 - 125	4	20
Molybdenum	0.0022	J	0.100	0.112		mg/L		110	75 - 125	3	20
Potassium	1.7		6.97	9.17		mg/L		107	75 - 125	1	20
Selenium	<0.0012		0.100	0.108		mg/L		107	75 - 125	4	20
Sodium	25		5.05	29.8	4	mg/L		92	75 - 125	3	20
Thallium	<0.00026		0.0500	0.0543		mg/L		109	75 - 125	0	20

Lab Sample ID: 400-226578-B-23-E MS
Matrix: Water
Analysis Batch: 594928

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 594690

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony	<0.0015		0.0500	0.0522		mg/L		104	75 - 125		
Arsenic	0.041		0.0500	0.0914		mg/L		102	75 - 125		

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-226578-B-23-E MS
Matrix: Water
Analysis Batch: 594928

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 594690

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.15	J B *+ ^+ ^2 F1 F2	0.100	0.240	J ^+	mg/L		86	75 - 125
Chromium	<0.0010		0.0500	0.0487		mg/L		97	75 - 125
Lead	<0.00081		0.0500	0.0490		mg/L		98	75 - 125
Lithium	<0.0049		0.0500	0.0464		mg/L		93	75 - 125

Lab Sample ID: 400-226578-B-23-F MSD
Matrix: Water
Analysis Batch: 594928

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 594690

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.0015		0.0500	0.0506		mg/L		101	75 - 125	3	20
Arsenic	0.041		0.0500	0.0854		mg/L		90	75 - 125	7	20
Boron	0.15	J B *+ ^+ ^2 F1 F2	0.100	0.188	J F1 F2	mg/L		34	75 - 125	24	20
Chromium	<0.0010		0.0500	0.0479		mg/L		96	75 - 125	2	20
Lead	<0.00081		0.0500	0.0484		mg/L		97	75 - 125	1	20
Lithium	<0.0049		0.0500	0.0469		mg/L		94	75 - 125	1	20

Lab Sample ID: 680-221504-6 MS
Matrix: Water
Analysis Batch: 741983

Client Sample ID: MCM-06
Prep Type: Dissolved
Prep Batch: 741803

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Iron, Dissolved	<0.026		5.00	5.04		mg/L		101	75 - 125

Lab Sample ID: 680-221504-6 MSD
Matrix: Water
Analysis Batch: 741983

Client Sample ID: MCM-06
Prep Type: Dissolved
Prep Batch: 741803

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron, Dissolved	<0.026		5.00	5.35		mg/L		107	75 - 125	6	20

Lab Sample ID: MB 680-742387/9-B
Matrix: Water
Analysis Batch: 742906

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 742388

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	<0.026		0.10	0.026	mg/L		09/27/22 11:35	09/29/22 17:40	1

Lab Sample ID: LCS 680-742387/10-B
Matrix: Water
Analysis Batch: 742906

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 742388

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron, Dissolved			5.00	5.34		mg/L		107	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 680-221590-15 MS
Matrix: Water
Analysis Batch: 742906

Client Sample ID: PT-04D
Prep Type: Dissolved
Prep Batch: 742388

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Iron, Dissolved	<0.026		5.00	5.10		mg/L		102	75 - 125

Lab Sample ID: 680-221590-15 MSD
Matrix: Water
Analysis Batch: 742906

Client Sample ID: PT-04D
Prep Type: Dissolved
Prep Batch: 742388

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron, Dissolved	<0.026		5.00	5.05		mg/L		101	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 680-742335/1-A
Matrix: Water
Analysis Batch: 742459

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 742335

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/27/22 08:00	09/27/22 15:25	1

Lab Sample ID: LCS 680-742335/2-A
Matrix: Water
Analysis Batch: 742459

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 742335

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00250	0.00242		mg/L		97	80 - 120

Lab Sample ID: 660-123999-H-1-D MS
Matrix: Water
Analysis Batch: 742459

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 742335

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.000080		0.00100	0.000918		mg/L		92	80 - 120

Lab Sample ID: 660-123999-H-1-E MSD
Matrix: Water
Analysis Batch: 742459

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 742335

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.000080		0.00100	0.000940		mg/L		94	80 - 120	2	20

Lab Sample ID: MB 680-742786/1-A
Matrix: Water
Analysis Batch: 743020

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 742786

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/29/22 10:35	09/30/22 10:26	1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 680-742786/2-A
Matrix: Water
Analysis Batch: 743020

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 742786

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			0.00250	0.00242		mg/L		97	80 - 120		

Lab Sample ID: 680-221747-A-11-D MS
Matrix: Water
Analysis Batch: 743020

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 742786

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury	0.000082	J F1	0.00100	0.000378	F1	mg/L		30	80 - 120		

Lab Sample ID: 680-221747-A-11-E MSD
Matrix: Water
Analysis Batch: 743020

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 742786

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.000082	J F1	0.00100	0.000371	F1	mg/L		29	80 - 120	2	20

Method: EPA 6020B - Metals (ICP/MS)

Lab Sample ID: MB 180-420635/1-A
Matrix: Water
Analysis Batch: 420993

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 420635

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.00083		0.0050	0.00083	mg/L		12/13/22 14:00	12/15/22 12:28	1

Lab Sample ID: LCS 180-420635/2-A
Matrix: Water
Analysis Batch: 420993

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 420635

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Lithium			0.500	0.483		mg/L		97	80 - 120		

Lab Sample ID: 180-148538-F-1-B MS
Matrix: Water
Analysis Batch: 420993

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 420635

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Lithium	0.064		0.500	0.550		mg/L		97	75 - 125		

Lab Sample ID: 180-148538-F-1-C MSD
Matrix: Water
Analysis Batch: 420993

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 420635

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium	0.064		0.500	0.537		mg/L		95	75 - 125	2	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 680-742373/4
Matrix: Water
Analysis Batch: 742373

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<2.2		5.0	2.2	mg/L			09/26/22 13:35	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			09/26/22 13:35	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			09/26/22 13:35	1

Lab Sample ID: LCS 680-742373/6
Matrix: Water
Analysis Batch: 742373

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity as CaCO3 to pH 4.5			250	250		mg/L		100	90 - 112		

Lab Sample ID: LCSD 680-742373/31
Matrix: Water
Analysis Batch: 742373

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5			250	245		mg/L		98	90 - 112	2	30

Lab Sample ID: 680-221504-2 DU
Matrix: Water
Analysis Batch: 742373

Client Sample ID: MCM-19
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	29			28.9		mg/L				0.3	30
Bicarbonate Alkalinity as CaCO3	29			28.9		mg/L				0.3	30
Carbonate Alkalinity as CaCO3	<5.0			<5.0		mg/L				NC	30

Lab Sample ID: MB 680-742597/4
Matrix: Water
Analysis Batch: 742597

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<2.2		5.0	2.2	mg/L			09/27/22 18:23	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			09/27/22 18:23	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			09/27/22 18:23	1

Lab Sample ID: LCS 680-742597/6
Matrix: Water
Analysis Batch: 742597

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity as CaCO3 to pH 4.5			250	247		mg/L		99	90 - 112		

Method: 2320B-2011 - Alkalinity, Total (Continued)

Lab Sample ID: LCSD 680-742597/31
Matrix: Water
Analysis Batch: 742597

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5			250	244		mg/L		98	90 - 112	1	30

Lab Sample ID: 680-221504-5 DU
Matrix: Water
Analysis Batch: 742597

Client Sample ID: EB-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	<2.2			<2.2		mg/L				NC	30
Bicarbonate Alkalinity as CaCO3	<5.0			<5.0		mg/L				NC	30
Carbonate Alkalinity as CaCO3	<5.0			<5.0		mg/L				NC	30

Lab Sample ID: 680-221590-5 DU
Matrix: Water
Analysis Batch: 742597

Client Sample ID: MCM-07
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	300			293		mg/L				1	30
Bicarbonate Alkalinity as CaCO3	300			293		mg/L				1	30
Carbonate Alkalinity as CaCO3	<5.0			<5.0		mg/L				NC	30

Method: 2540C-2011 - Total Dissolved Solids (Dried at 180 °C)

Lab Sample ID: MB 680-741871/1
Matrix: Water
Analysis Batch: 741871

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			09/23/22 10:39	1

Lab Sample ID: LCS 680-741871/2
Matrix: Water
Analysis Batch: 741871

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			2420	2480		mg/L		102	80 - 120		

Lab Sample ID: LCSD 680-741871/3
Matrix: Water
Analysis Batch: 741871

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			2420	2420		mg/L		100	80 - 120	3	25

Method: 2540C-2011 - Total Dissolved Solids (Dried at 180 °C) (Continued)

Lab Sample ID: 680-221381-H-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 741871

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	150		128	F5	mg/L		13	5

Lab Sample ID: 680-221395-B-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 741871

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	650		630		mg/L		4	5

Lab Sample ID: MB 680-742241/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 742241

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			09/26/22 13:05	1

Lab Sample ID: LCS 680-742241/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 742241

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	2420	2450		mg/L		101	80 - 120

Lab Sample ID: LCSD 680-742241/3 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 742241

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids	2420	2430		mg/L		100	80 - 120	1	25

Lab Sample ID: 680-221557-A-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 742241

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	160		146	F5	mg/L		12	5

Lab Sample ID: 680-221564-A-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 742241

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	240		244		mg/L		0.8	5

Lab Sample ID: MB 680-742396/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 742396

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			09/27/22 12:02	1

Method: 2540C-2011 - Total Dissolved Solids (Dried at 180 °C)

Lab Sample ID: LCS 680-742396/2
Matrix: Water
Analysis Batch: 742396

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	2420	2440		mg/L		101	80 - 120

Lab Sample ID: LCSD 680-742396/3
Matrix: Water
Analysis Batch: 742396

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids	2420	2410		mg/L		100	80 - 120	1	25

Lab Sample ID: 680-221590-4 DU
Matrix: Water
Analysis Batch: 742396

Client Sample ID: MCM-05
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	2100		2010		mg/L		3	5

Lab Sample ID: 680-221590-7 DU
Matrix: Water
Analysis Batch: 742396

Client Sample ID: MCM-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1300		1270		mg/L		0.2	5

Method: 4500 S2 F-2011 - Sulfide, Total

Lab Sample ID: MB 680-742189/1
Matrix: Water
Analysis Batch: 742189

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<1.0		1.0	1.0	mg/L			09/26/22 10:21	1

Lab Sample ID: LCS 680-742189/2
Matrix: Water
Analysis Batch: 742189

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	10.0	10.4		mg/L		104	75 - 125

Lab Sample ID: LCSD 680-742189/3
Matrix: Water
Analysis Batch: 742189

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	10.0	9.82		mg/L		98	75 - 125	5	30

Method: 4500 S2 F-2011 - Sulfide, Total (Continued)

Lab Sample ID: 680-221504-6 MS
Matrix: Water
Analysis Batch: 742189

Client Sample ID: MCM-06
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfide	20	F1	6.94	22.0	F1	mg/L		27	75 - 125		

Lab Sample ID: 680-221504-6 MSD
Matrix: Water
Analysis Batch: 742189

Client Sample ID: MCM-06
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	20	F1	6.94	22.0	F1	mg/L		27	75 - 125	0	30

Lab Sample ID: 400-226324-D-4 DU
Matrix: Water
Analysis Batch: 742189

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfide	6.3			5.86		mg/L				8	30

HPLC/IC

Analysis Batch: 743228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-1	MCM-18	Total/NA	Water	300.0-1993 R2.1	
680-221504-2	MCM-19	Total/NA	Water	300.0-1993 R2.1	
680-221504-3	DUP-1	Total/NA	Water	300.0-1993 R2.1	
680-221504-4	FB-1	Total/NA	Water	300.0-1993 R2.1	
680-221504-5	EB-1	Total/NA	Water	300.0-1993 R2.1	
680-221504-6	MCM-06	Total/NA	Water	300.0-1993 R2.1	
680-221504-7	MCM-20	Total/NA	Water	300.0-1993 R2.1	
MB 680-743228/2	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 680-743228/3	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCSD 680-743228/4	Lab Control Sample Dup	Total/NA	Water	300.0-1993 R2.1	
680-221244-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0-1993 R2.1	
680-221244-AS-3 MS	Matrix Spike	Total/NA	Water	300.0-1993 R2.1	

Analysis Batch: 743856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-8	DPZ-2	Total/NA	Water	300.0-1993 R2.1	
680-221504-9	PT-01	Total/NA	Water	300.0-1993 R2.1	
680-221504-10	PT-02	Total/NA	Water	300.0-1993 R2.1	
680-221504-11	PT-03	Total/NA	Water	300.0-1993 R2.1	
680-221504-13	DR-02	Total/NA	Water	300.0-1993 R2.1	
MB 680-743856/2	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 680-743856/3	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCSD 680-743856/4	Lab Control Sample Dup	Total/NA	Water	300.0-1993 R2.1	
680-221851-C-8 MS	Matrix Spike	Total/NA	Water	300.0-1993 R2.1	
680-221851-C-8 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0-1993 R2.1	

Analysis Batch: 743937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-12	DR-01	Total/NA	Water	300.0-1993 R2.1	
MB 680-743937/2	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 680-743937/3	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCSD 680-743937/4	Lab Control Sample Dup	Total/NA	Water	300.0-1993 R2.1	
190-29941-A-5 MS	Matrix Spike	Total/NA	Water	300.0-1993 R2.1	
190-29941-A-5 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0-1993 R2.1	

Analysis Batch: 744183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-1	MCM-01	Total/NA	Water	300.0-1993 R2.1	
680-221590-2	MCM-02	Total/NA	Water	300.0-1993 R2.1	
680-221590-3	MCM-04	Total/NA	Water	300.0-1993 R2.1	
680-221590-4	MCM-05	Total/NA	Water	300.0-1993 R2.1	
680-221590-5	MCM-07	Total/NA	Water	300.0-1993 R2.1	
680-221590-6	MCM-11	Total/NA	Water	300.0-1993 R2.1	
680-221590-7	MCM-12	Total/NA	Water	300.0-1993 R2.1	
680-221590-8	MCM-14	Total/NA	Water	300.0-1993 R2.1	
680-221590-9	MCM-15	Total/NA	Water	300.0-1993 R2.1	
680-221590-10	MCM-16	Total/NA	Water	300.0-1993 R2.1	
680-221590-11	MCM-17	Total/NA	Water	300.0-1993 R2.1	
680-221590-12	DUP-2	Total/NA	Water	300.0-1993 R2.1	
680-221590-13	FB-2	Total/NA	Water	300.0-1993 R2.1	
680-221590-14	EB-2	Total/NA	Water	300.0-1993 R2.1	

HPLC/IC (Continued)

Analysis Batch: 744183 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-15	PT-04D	Total/NA	Water	300.0-1993 R2.1	
MB 680-744183/41	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 680-744183/42	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCSD 680-744183/43	Lab Control Sample Dup	Total/NA	Water	300.0-1993 R2.1	
190-29943-A-8 MS	Matrix Spike	Total/NA	Water	300.0-1993 R2.1	
190-29943-A-8 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0-1993 R2.1	
680-221590-10 MS	MCM-16	Total/NA	Water	300.0-1993 R2.1	
680-221590-10 MSD	MCM-16	Total/NA	Water	300.0-1993 R2.1	

Analysis Batch: 744301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-4	MCM-05	Total/NA	Water	300.0-1993 R2.1	
680-221590-5	MCM-07	Total/NA	Water	300.0-1993 R2.1	
680-221590-8	MCM-14	Total/NA	Water	300.0-1993 R2.1	
680-221590-11	MCM-17	Total/NA	Water	300.0-1993 R2.1	
680-221590-15	PT-04D	Total/NA	Water	300.0-1993 R2.1	
MB 680-744301/2	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 680-744301/3	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCSD 680-744301/4	Lab Control Sample Dup	Total/NA	Water	300.0-1993 R2.1	
660-123946-G-3 MS	Matrix Spike	Total/NA	Water	300.0-1993 R2.1	
660-123946-G-3 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0-1993 R2.1	

Metals

Prep Batch: 420635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-3	DUP-1	Total Recoverable	Water	3005A	
680-221504-6	MCM-06	Total Recoverable	Water	3005A	
680-221504-7	MCM-20	Total Recoverable	Water	3005A	
MB 180-420635/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-420635/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-148538-F-1-B MS	Matrix Spike	Dissolved	Water	3005A	
180-148538-F-1-C MSD	Matrix Spike Duplicate	Dissolved	Water	3005A	

Analysis Batch: 420993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-3	DUP-1	Total Recoverable	Water	EPA 6020B	420635
680-221504-6	MCM-06	Total Recoverable	Water	EPA 6020B	420635
680-221504-7	MCM-20	Total Recoverable	Water	EPA 6020B	420635
MB 180-420635/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	420635
LCS 180-420635/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	420635
180-148538-F-1-B MS	Matrix Spike	Dissolved	Water	EPA 6020B	420635
180-148538-F-1-C MSD	Matrix Spike Duplicate	Dissolved	Water	EPA 6020B	420635

Prep Batch: 594662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-1	MCM-18	Total Recoverable	Water	3005A	
680-221504-2	MCM-19	Total Recoverable	Water	3005A	
680-221504-3	DUP-1	Total Recoverable	Water	3005A	
680-221504-4	FB-1	Total Recoverable	Water	3005A	
680-221504-5	EB-1	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 594662 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-6	MCM-06	Total Recoverable	Water	3005A	
680-221504-7	MCM-20	Total Recoverable	Water	3005A	
680-221504-8	DPZ-2	Total Recoverable	Water	3005A	
680-221504-9	PT-01	Total Recoverable	Water	3005A	
680-221504-10	PT-02	Total Recoverable	Water	3005A	
680-221504-11	PT-03	Total Recoverable	Water	3005A	
680-221504-12	DR-01	Total Recoverable	Water	3005A	
680-221504-13	DR-02	Total Recoverable	Water	3005A	
MB 400-594662/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-594662/2-A ^5	Lab Control Sample	Total Recoverable	Water	3005A	
680-221504-1 MS	MCM-18	Total Recoverable	Water	3005A	
680-221504-1 MSD	MCM-18	Total Recoverable	Water	3005A	

Prep Batch: 594690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-1	MCM-01	Total Recoverable	Water	3005A	
680-221590-2	MCM-02	Total Recoverable	Water	3005A	
680-221590-3	MCM-04	Total Recoverable	Water	3005A	
680-221590-4	MCM-05	Total Recoverable	Water	3005A	
680-221590-5	MCM-07	Total Recoverable	Water	3005A	
680-221590-6	MCM-11	Total Recoverable	Water	3005A	
MB 400-594690/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-594690/2-A ^5	Lab Control Sample	Total Recoverable	Water	3005A	
400-226578-B-23-E MS	Matrix Spike	Dissolved	Water	3005A	
400-226578-B-23-F MSD	Matrix Spike Duplicate	Dissolved	Water	3005A	

Prep Batch: 594691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-7	MCM-12	Total Recoverable	Water	3005A	
680-221590-8	MCM-14	Total Recoverable	Water	3005A	
680-221590-9	MCM-15	Total Recoverable	Water	3005A	
680-221590-10	MCM-16	Total Recoverable	Water	3005A	
680-221590-11	MCM-17	Total Recoverable	Water	3005A	
680-221590-12	DUP-2	Total Recoverable	Water	3005A	
680-221590-13	FB-2	Total Recoverable	Water	3005A	
680-221590-14	EB-2	Total Recoverable	Water	3005A	
680-221590-15	PT-04D	Total Recoverable	Water	3005A	
MB 400-594691/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-594691/2-A ^5	Lab Control Sample	Total Recoverable	Water	3005A	
680-221590-8 MS	MCM-14	Total Recoverable	Water	3005A	
680-221590-8 MSD	MCM-14	Total Recoverable	Water	3005A	

Analysis Batch: 594928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-1	MCM-01	Total Recoverable	Water	6020B	594690
680-221590-2	MCM-02	Total Recoverable	Water	6020B	594690
680-221590-3	MCM-04	Total Recoverable	Water	6020B	594690
680-221590-4	MCM-05	Total Recoverable	Water	6020B	594690
680-221590-5	MCM-07	Total Recoverable	Water	6020B	594690
680-221590-6	MCM-11	Total Recoverable	Water	6020B	594690
680-221590-7	MCM-12	Total Recoverable	Water	6020B	594691

Metals (Continued)

Analysis Batch: 594928 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-8	MCM-14	Total Recoverable	Water	6020B	594691
680-221590-9	MCM-15	Total Recoverable	Water	6020B	594691
680-221590-10	MCM-16	Total Recoverable	Water	6020B	594691
680-221590-11	MCM-17	Total Recoverable	Water	6020B	594691
680-221590-12	DUP-2	Total Recoverable	Water	6020B	594691
680-221590-13	FB-2	Total Recoverable	Water	6020B	594691
680-221590-14	EB-2	Total Recoverable	Water	6020B	594691
680-221590-15	PT-04D	Total Recoverable	Water	6020B	594691
MB 400-594690/1-A ^5	Method Blank	Total Recoverable	Water	6020B	594690
MB 400-594691/1-A ^5	Method Blank	Total Recoverable	Water	6020B	594691
LCS 400-594690/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020B	594690
LCS 400-594691/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020B	594691
400-226578-B-23-E MS	Matrix Spike	Dissolved	Water	6020B	594690
400-226578-B-23-F MSD	Matrix Spike Duplicate	Dissolved	Water	6020B	594690
680-221590-8 MS	MCM-14	Total Recoverable	Water	6020B	594691
680-221590-8 MSD	MCM-14	Total Recoverable	Water	6020B	594691

Analysis Batch: 595577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-1	MCM-18	Total Recoverable	Water	6020B	594662
680-221504-2	MCM-19	Total Recoverable	Water	6020B	594662
680-221504-3	DUP-1	Total Recoverable	Water	6020B	594662
680-221504-4	FB-1	Total Recoverable	Water	6020B	594662
680-221504-5	EB-1	Total Recoverable	Water	6020B	594662
680-221504-6	MCM-06	Total Recoverable	Water	6020B	594662
680-221504-7	MCM-20	Total Recoverable	Water	6020B	594662
680-221504-8	DPZ-2	Total Recoverable	Water	6020B	594662
680-221504-9	PT-01	Total Recoverable	Water	6020B	594662
680-221504-10	PT-02	Total Recoverable	Water	6020B	594662
680-221504-11	PT-03	Total Recoverable	Water	6020B	594662
680-221504-12	DR-01	Total Recoverable	Water	6020B	594662
680-221504-13	DR-02	Total Recoverable	Water	6020B	594662
680-221590-12	DUP-2	Total Recoverable	Water	6020B	594691
680-221590-13	FB-2	Total Recoverable	Water	6020B	594691
680-221590-14	EB-2	Total Recoverable	Water	6020B	594691
MB 400-594662/1-A ^5	Method Blank	Total Recoverable	Water	6020B	594662
MB 400-594691/1-A ^5	Method Blank	Total Recoverable	Water	6020B	594691
LCS 400-594662/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020B	594662
LCS 400-594691/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020B	594691
680-221504-1 MS	MCM-18	Total Recoverable	Water	6020B	594662
680-221504-1 MSD	MCM-18	Total Recoverable	Water	6020B	594662

Analysis Batch: 596288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-1	MCM-18	Total Recoverable	Water	6020B	594662
680-221504-2	MCM-19	Total Recoverable	Water	6020B	594662
680-221504-3	DUP-1	Total Recoverable	Water	6020B	594662
680-221504-4	FB-1	Total Recoverable	Water	6020B	594662
680-221504-5	EB-1	Total Recoverable	Water	6020B	594662
680-221504-6	MCM-06	Total Recoverable	Water	6020B	594662
680-221504-7	MCM-20	Total Recoverable	Water	6020B	594662

Metals (Continued)

Analysis Batch: 596288 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-594662/1-A ^5	Method Blank	Total Recoverable	Water	6020B	594662
LCS 400-594662/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020B	594662

Prep Batch: 741743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-5	EB-1	Total Recoverable	Water	3005A	
680-221504-6	MCM-06	Total Recoverable	Water	3005A	
680-221504-7	MCM-20	Total Recoverable	Water	3005A	
MB 680-741743/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-741743/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-221513-C-1-B MS	Matrix Spike	Total Recoverable	Water	3005A	
680-221513-C-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 741757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-1	MCM-18	Total Recoverable	Water	3005A	
680-221504-2	MCM-19	Total Recoverable	Water	3005A	
680-221504-3	DUP-1	Total Recoverable	Water	3005A	
680-221504-8	DPZ-2	Total Recoverable	Water	3005A	
MB 680-741757/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-741757/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-221504-1 MS	MCM-18	Total Recoverable	Water	3005A	
680-221504-1 MSD	MCM-18	Total Recoverable	Water	3005A	

Filtration Batch: 741800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-6	MCM-06	Dissolved	Water	FILTRATION	
680-221504-8	DPZ-2	Dissolved	Water	FILTRATION	
680-221504-9	PT-01	Dissolved	Water	FILTRATION	
680-221504-10	PT-02	Dissolved	Water	FILTRATION	
680-221504-11	PT-03	Dissolved	Water	FILTRATION	
680-221504-12	DR-01	Dissolved	Water	FILTRATION	
680-221504-13	DR-02	Dissolved	Water	FILTRATION	
680-221504-6 MS	MCM-06	Dissolved	Water	FILTRATION	
680-221504-6 MSD	MCM-06	Dissolved	Water	FILTRATION	

Prep Batch: 741803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-6	MCM-06	Dissolved	Water	3005A	741800
680-221504-8	DPZ-2	Dissolved	Water	3005A	741800
680-221504-9	PT-01	Dissolved	Water	3005A	741800
680-221504-10	PT-02	Dissolved	Water	3005A	741800
680-221504-11	PT-03	Dissolved	Water	3005A	741800
680-221504-12	DR-01	Dissolved	Water	3005A	741800
680-221504-13	DR-02	Dissolved	Water	3005A	741800
MB 680-741803/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-741803/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-221504-6 MS	MCM-06	Dissolved	Water	3005A	741800
680-221504-6 MSD	MCM-06	Dissolved	Water	3005A	741800

QC Association Summary

Client: Southern Company
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

Metals

Prep Batch: 741808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-4	FB-1	Total Recoverable	Water	3005A	
MB 680-741808/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-741808/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-221525-C-1-B MS	Matrix Spike	Total Recoverable	Water	3005A	
680-221525-C-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 741983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-1	MCM-18	Total Recoverable	Water	6020B	741757
680-221504-2	MCM-19	Total Recoverable	Water	6020B	741757
680-221504-3	DUP-1	Total Recoverable	Water	6020B	741757
680-221504-4	FB-1	Total Recoverable	Water	6020B	741808
680-221504-5	EB-1	Total Recoverable	Water	6020B	741743
680-221504-6	MCM-06	Dissolved	Water	6020B	741803
680-221504-6	MCM-06	Total Recoverable	Water	6020B	741743
680-221504-7	MCM-20	Total Recoverable	Water	6020B	741743
680-221504-8	DPZ-2	Dissolved	Water	6020B	741803
680-221504-8	DPZ-2	Total Recoverable	Water	6020B	741757
680-221504-9	PT-01	Dissolved	Water	6020B	741803
680-221504-10	PT-02	Dissolved	Water	6020B	741803
680-221504-11	PT-03	Dissolved	Water	6020B	741803
680-221504-12	DR-01	Dissolved	Water	6020B	741803
680-221504-13	DR-02	Dissolved	Water	6020B	741803
MB 680-741743/1-A	Method Blank	Total Recoverable	Water	6020B	741743
MB 680-741757/1-A	Method Blank	Total Recoverable	Water	6020B	741757
MB 680-741803/1-A	Method Blank	Total Recoverable	Water	6020B	741803
MB 680-741808/1-A	Method Blank	Total Recoverable	Water	6020B	741808
LCS 680-741743/2-A	Lab Control Sample	Total Recoverable	Water	6020B	741743
LCS 680-741757/2-A	Lab Control Sample	Total Recoverable	Water	6020B	741757
LCS 680-741803/2-A	Lab Control Sample	Total Recoverable	Water	6020B	741803
LCS 680-741808/2-A	Lab Control Sample	Total Recoverable	Water	6020B	741808
680-221504-1 MS	MCM-18	Total Recoverable	Water	6020B	741757
680-221504-1 MSD	MCM-18	Total Recoverable	Water	6020B	741757
680-221504-6 MS	MCM-06	Dissolved	Water	6020B	741803
680-221504-6 MSD	MCM-06	Dissolved	Water	6020B	741803
680-221513-C-1-B MS	Matrix Spike	Total Recoverable	Water	6020B	741743
680-221513-C-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020B	741743
680-221525-C-1-B MS	Matrix Spike	Total Recoverable	Water	6020B	741808
680-221525-C-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020B	741808

Prep Batch: 742309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-1	MCM-01	Total Recoverable	Water	3005A	
680-221590-2	MCM-02	Total Recoverable	Water	3005A	
680-221590-4	MCM-05	Total Recoverable	Water	3005A	
680-221590-5	MCM-07	Total Recoverable	Water	3005A	
680-221590-6	MCM-11	Total Recoverable	Water	3005A	
680-221590-7	MCM-12	Total Recoverable	Water	3005A	
680-221590-8	MCM-14	Total Recoverable	Water	3005A	
680-221590-9	MCM-15	Total Recoverable	Water	3005A	
680-221590-10	MCM-16	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 742309 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-11	MCM-17	Total Recoverable	Water	3005A	
680-221590-12	DUP-2	Total Recoverable	Water	3005A	
680-221590-13	FB-2	Total Recoverable	Water	3005A	
680-221590-14	EB-2	Total Recoverable	Water	3005A	
MB 680-742309/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-742309/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-221590-4 MS	MCM-05	Total Recoverable	Water	3005A	
680-221590-4 MSD	MCM-05	Total Recoverable	Water	3005A	

Prep Batch: 742335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-1	MCM-18	Total/NA	Water	7470A	
680-221504-2	MCM-19	Total/NA	Water	7470A	
680-221504-3	DUP-1	Total/NA	Water	7470A	
680-221504-4	FB-1	Total/NA	Water	7470A	
680-221504-5	EB-1	Total/NA	Water	7470A	
680-221504-6	MCM-06	Total/NA	Water	7470A	
680-221504-7	MCM-20	Total/NA	Water	7470A	
680-221504-8	DPZ-2	Total/NA	Water	7470A	
MB 680-742335/1-A	Method Blank	Total/NA	Water	7470A	
LCS 680-742335/2-A	Lab Control Sample	Total/NA	Water	7470A	
660-123999-H-1-D MS	Matrix Spike	Total/NA	Water	7470A	
660-123999-H-1-E MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 742343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-1	MCM-18	Total Recoverable	Water	6020B	741757
680-221504-2	MCM-19	Total Recoverable	Water	6020B	741757
680-221504-3	DUP-1	Total Recoverable	Water	6020B	741757
680-221504-4	FB-1	Total Recoverable	Water	6020B	741808
680-221504-6	MCM-06	Total Recoverable	Water	6020B	741743
680-221504-7	MCM-20	Total Recoverable	Water	6020B	741743
680-221504-8	DPZ-2	Total Recoverable	Water	6020B	741757
MB 680-741808/1-A	Method Blank	Total Recoverable	Water	6020B	741808
LCS 680-741808/2-A	Lab Control Sample	Total Recoverable	Water	6020B	741808
680-221504-1 MS	MCM-18	Total Recoverable	Water	6020B	741757
680-221504-1 MSD	MCM-18	Total Recoverable	Water	6020B	741757
680-221525-C-1-B MS	Matrix Spike	Total Recoverable	Water	6020B	741808
680-221525-C-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020B	741808

Filtration Batch: 742387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-7	MCM-20	Dissolved	Water	FILTRATION	
680-221590-15	PT-04D	Dissolved	Water	FILTRATION	
MB 680-742387/9-B	Method Blank	Dissolved	Water	FILTRATION	
LCS 680-742387/10-B	Lab Control Sample	Dissolved	Water	FILTRATION	
680-221590-15 MS	PT-04D	Dissolved	Water	FILTRATION	
680-221590-15 MSD	PT-04D	Dissolved	Water	FILTRATION	

Metals

Prep Batch: 742388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-7	MCM-20	Dissolved	Water	3005A	742387
680-221590-15	PT-04D	Dissolved	Water	3005A	742387
MB 680-742387/9-B	Method Blank	Dissolved	Water	3005A	742387
LCS 680-742387/10-B	Lab Control Sample	Dissolved	Water	3005A	742387
680-221590-15 MS	PT-04D	Dissolved	Water	3005A	742387
680-221590-15 MSD	PT-04D	Dissolved	Water	3005A	742387

Analysis Batch: 742459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-1	MCM-18	Total/NA	Water	7470A	742335
680-221504-2	MCM-19	Total/NA	Water	7470A	742335
680-221504-3	DUP-1	Total/NA	Water	7470A	742335
680-221504-4	FB-1	Total/NA	Water	7470A	742335
680-221504-5	EB-1	Total/NA	Water	7470A	742335
680-221504-6	MCM-06	Total/NA	Water	7470A	742335
680-221504-7	MCM-20	Total/NA	Water	7470A	742335
680-221504-8	DPZ-2	Total/NA	Water	7470A	742335
MB 680-742335/1-A	Method Blank	Total/NA	Water	7470A	742335
LCS 680-742335/2-A	Lab Control Sample	Total/NA	Water	7470A	742335
660-123999-H-1-D MS	Matrix Spike	Total/NA	Water	7470A	742335
660-123999-H-1-E MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	742335

Analysis Batch: 742503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-1	MCM-01	Total Recoverable	Water	6020B	742309
680-221590-2	MCM-02	Total Recoverable	Water	6020B	742309
680-221590-4	MCM-05	Total Recoverable	Water	6020B	742309
680-221590-5	MCM-07	Total Recoverable	Water	6020B	742309
680-221590-6	MCM-11	Total Recoverable	Water	6020B	742309
680-221590-7	MCM-12	Total Recoverable	Water	6020B	742309
680-221590-8	MCM-14	Total Recoverable	Water	6020B	742309
680-221590-9	MCM-15	Total Recoverable	Water	6020B	742309
680-221590-10	MCM-16	Total Recoverable	Water	6020B	742309
680-221590-11	MCM-17	Total Recoverable	Water	6020B	742309
680-221590-12	DUP-2	Total Recoverable	Water	6020B	742309
680-221590-13	FB-2	Total Recoverable	Water	6020B	742309
680-221590-14	EB-2	Total Recoverable	Water	6020B	742309
MB 680-742309/1-A	Method Blank	Total Recoverable	Water	6020B	742309
LCS 680-742309/2-A	Lab Control Sample	Total Recoverable	Water	6020B	742309
680-221590-4 MS	MCM-05	Total Recoverable	Water	6020B	742309
680-221590-4 MSD	MCM-05	Total Recoverable	Water	6020B	742309

Analysis Batch: 742780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-4	MCM-05	Total Recoverable	Water	6020B	742309
680-221590-5	MCM-07	Total Recoverable	Water	6020B	742309
680-221590-8	MCM-14	Total Recoverable	Water	6020B	742309
680-221590-11	MCM-17	Total Recoverable	Water	6020B	742309
680-221590-4 MS	MCM-05	Total Recoverable	Water	6020B	742309
680-221590-4 MSD	MCM-05	Total Recoverable	Water	6020B	742309

Metals

Prep Batch: 742784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-3	MCM-04	Total Recoverable	Water	3005A	
MB 680-742784/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-742784/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-221820-C-3-E MS	Matrix Spike	Total Recoverable	Water	3005A	
680-221820-C-3-F MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 742786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-1	MCM-01	Total/NA	Water	7470A	
680-221590-2	MCM-02	Total/NA	Water	7470A	
680-221590-3	MCM-04	Total/NA	Water	7470A	
680-221590-4	MCM-05	Total/NA	Water	7470A	
680-221590-5	MCM-07	Total/NA	Water	7470A	
680-221590-6	MCM-11	Total/NA	Water	7470A	
680-221590-7	MCM-12	Total/NA	Water	7470A	
680-221590-8	MCM-14	Total/NA	Water	7470A	
680-221590-9	MCM-15	Total/NA	Water	7470A	
680-221590-10	MCM-16	Total/NA	Water	7470A	
680-221590-11	MCM-17	Total/NA	Water	7470A	
680-221590-12	DUP-2	Total/NA	Water	7470A	
680-221590-13	FB-2	Total/NA	Water	7470A	
680-221590-14	EB-2	Total/NA	Water	7470A	
MB 680-742786/1-A	Method Blank	Total/NA	Water	7470A	
LCS 680-742786/2-A	Lab Control Sample	Total/NA	Water	7470A	
680-221747-A-11-D MS	Matrix Spike	Total/NA	Water	7470A	
680-221747-A-11-E MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 742906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-7	MCM-20	Dissolved	Water	6020B	742388
680-221590-15	PT-04D	Dissolved	Water	6020B	742388
MB 680-742387/9-B	Method Blank	Dissolved	Water	6020B	742388
LCS 680-742387/10-B	Lab Control Sample	Dissolved	Water	6020B	742388
680-221590-15 MS	PT-04D	Dissolved	Water	6020B	742388
680-221590-15 MSD	PT-04D	Dissolved	Water	6020B	742388

Analysis Batch: 743020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-1	MCM-01	Total/NA	Water	7470A	742786
680-221590-2	MCM-02	Total/NA	Water	7470A	742786
680-221590-3	MCM-04	Total/NA	Water	7470A	742786
680-221590-4	MCM-05	Total/NA	Water	7470A	742786
680-221590-5	MCM-07	Total/NA	Water	7470A	742786
680-221590-6	MCM-11	Total/NA	Water	7470A	742786
680-221590-7	MCM-12	Total/NA	Water	7470A	742786
680-221590-8	MCM-14	Total/NA	Water	7470A	742786
680-221590-9	MCM-15	Total/NA	Water	7470A	742786
680-221590-10	MCM-16	Total/NA	Water	7470A	742786
680-221590-11	MCM-17	Total/NA	Water	7470A	742786
680-221590-12	DUP-2	Total/NA	Water	7470A	742786
680-221590-13	FB-2	Total/NA	Water	7470A	742786

Metals (Continued)

Analysis Batch: 743020 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-14	EB-2	Total/NA	Water	7470A	742786
MB 680-742786/1-A	Method Blank	Total/NA	Water	7470A	742786
LCS 680-742786/2-A	Lab Control Sample	Total/NA	Water	7470A	742786
680-221747-A-11-D MS	Matrix Spike	Total/NA	Water	7470A	742786
680-221747-A-11-E MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	742786

Analysis Batch: 743044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-3	MCM-04	Total Recoverable	Water	6020B	742784
MB 680-742784/1-A	Method Blank	Total Recoverable	Water	6020B	742784
LCS 680-742784/2-A	Lab Control Sample	Total Recoverable	Water	6020B	742784
680-221820-C-3-E MS	Matrix Spike	Total Recoverable	Water	6020B	742784
680-221820-C-3-F MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020B	742784

General Chemistry

Analysis Batch: 741871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-1	MCM-18	Total/NA	Water	2540C-2011	
680-221504-2	MCM-19	Total/NA	Water	2540C-2011	
680-221504-3	DUP-1	Total/NA	Water	2540C-2011	
680-221504-4	FB-1	Total/NA	Water	2540C-2011	
680-221504-5	EB-1	Total/NA	Water	2540C-2011	
680-221504-6	MCM-06	Total/NA	Water	2540C-2011	
680-221504-7	MCM-20	Total/NA	Water	2540C-2011	
680-221504-8	DPZ-2	Total/NA	Water	2540C-2011	
680-221504-9	PT-01	Total/NA	Water	2540C-2011	
680-221504-10	PT-02	Total/NA	Water	2540C-2011	
MB 680-741871/1	Method Blank	Total/NA	Water	2540C-2011	
LCS 680-741871/2	Lab Control Sample	Total/NA	Water	2540C-2011	
LCSD 680-741871/3	Lab Control Sample Dup	Total/NA	Water	2540C-2011	
680-221381-H-1 DU	Duplicate	Total/NA	Water	2540C-2011	
680-221395-B-1 DU	Duplicate	Total/NA	Water	2540C-2011	

Analysis Batch: 742189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-6	MCM-06	Total/NA	Water	4500 S2 F-2011	
680-221504-7	MCM-20	Total/NA	Water	4500 S2 F-2011	
680-221504-8	DPZ-2	Total/NA	Water	4500 S2 F-2011	
680-221504-9	PT-01	Total/NA	Water	4500 S2 F-2011	
680-221504-10	PT-02	Total/NA	Water	4500 S2 F-2011	
680-221504-11	PT-03	Total/NA	Water	4500 S2 F-2011	
680-221504-12	DR-01	Total/NA	Water	4500 S2 F-2011	
680-221504-13	DR-02	Total/NA	Water	4500 S2 F-2011	
680-221590-15	PT-04D	Total/NA	Water	4500 S2 F-2011	
MB 680-742189/1	Method Blank	Total/NA	Water	4500 S2 F-2011	
LCS 680-742189/2	Lab Control Sample	Total/NA	Water	4500 S2 F-2011	
LCSD 680-742189/3	Lab Control Sample Dup	Total/NA	Water	4500 S2 F-2011	
680-221504-6 MS	MCM-06	Total/NA	Water	4500 S2 F-2011	
680-221504-6 MSD	MCM-06	Total/NA	Water	4500 S2 F-2011	
400-226324-D-4 DU	Duplicate	Total/NA	Water	4500 S2 F-2011	

General Chemistry

Analysis Batch: 742241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-11	PT-03	Total/NA	Water	2540C-2011	
680-221504-12	DR-01	Total/NA	Water	2540C-2011	
680-221504-13	DR-02	Total/NA	Water	2540C-2011	
680-221590-1	MCM-01	Total/NA	Water	2540C-2011	
680-221590-2	MCM-02	Total/NA	Water	2540C-2011	
680-221590-3	MCM-04	Total/NA	Water	2540C-2011	
MB 680-742241/1	Method Blank	Total/NA	Water	2540C-2011	
LCS 680-742241/2	Lab Control Sample	Total/NA	Water	2540C-2011	
LCSD 680-742241/3	Lab Control Sample Dup	Total/NA	Water	2540C-2011	
680-221557-A-1 DU	Duplicate	Total/NA	Water	2540C-2011	
680-221564-A-1 DU	Duplicate	Total/NA	Water	2540C-2011	

Analysis Batch: 742373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-1	MCM-18	Total/NA	Water	2320B-2011	
680-221504-2	MCM-19	Total/NA	Water	2320B-2011	
680-221504-3	DUP-1	Total/NA	Water	2320B-2011	
680-221504-4	FB-1	Total/NA	Water	2320B-2011	
MB 680-742373/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-742373/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-742373/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-221504-2 DU	MCM-19	Total/NA	Water	2320B-2011	

Analysis Batch: 742396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-4	MCM-05	Total/NA	Water	2540C-2011	
680-221590-5	MCM-07	Total/NA	Water	2540C-2011	
680-221590-6	MCM-11	Total/NA	Water	2540C-2011	
680-221590-7	MCM-12	Total/NA	Water	2540C-2011	
680-221590-8	MCM-14	Total/NA	Water	2540C-2011	
680-221590-9	MCM-15	Total/NA	Water	2540C-2011	
680-221590-10	MCM-16	Total/NA	Water	2540C-2011	
680-221590-11	MCM-17	Total/NA	Water	2540C-2011	
680-221590-12	DUP-2	Total/NA	Water	2540C-2011	
680-221590-13	FB-2	Total/NA	Water	2540C-2011	
680-221590-14	EB-2	Total/NA	Water	2540C-2011	
680-221590-15	PT-04D	Total/NA	Water	2540C-2011	
MB 680-742396/1	Method Blank	Total/NA	Water	2540C-2011	
LCS 680-742396/2	Lab Control Sample	Total/NA	Water	2540C-2011	
LCSD 680-742396/3	Lab Control Sample Dup	Total/NA	Water	2540C-2011	
680-221590-4 DU	MCM-05	Total/NA	Water	2540C-2011	
680-221590-7 DU	MCM-12	Total/NA	Water	2540C-2011	

Analysis Batch: 742597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-5	EB-1	Total/NA	Water	2320B-2011	
680-221504-6	MCM-06	Total/NA	Water	2320B-2011	
680-221504-7	MCM-20	Total/NA	Water	2320B-2011	
680-221504-8	DPZ-2	Total/NA	Water	2320B-2011	
680-221590-1	MCM-01	Total/NA	Water	2320B-2011	
680-221590-2	MCM-02	Total/NA	Water	2320B-2011	

General Chemistry (Continued)

Analysis Batch: 742597 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-3	MCM-04	Total/NA	Water	2320B-2011	
680-221590-4	MCM-05	Total/NA	Water	2320B-2011	
680-221590-5	MCM-07	Total/NA	Water	2320B-2011	
680-221590-6	MCM-11	Total/NA	Water	2320B-2011	
680-221590-7	MCM-12	Total/NA	Water	2320B-2011	
680-221590-8	MCM-14	Total/NA	Water	2320B-2011	
680-221590-9	MCM-15	Total/NA	Water	2320B-2011	
680-221590-10	MCM-16	Total/NA	Water	2320B-2011	
680-221590-11	MCM-17	Total/NA	Water	2320B-2011	
680-221590-12	DUP-2	Total/NA	Water	2320B-2011	
680-221590-13	FB-2	Total/NA	Water	2320B-2011	
680-221590-14	EB-2	Total/NA	Water	2320B-2011	
MB 680-742597/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-742597/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-742597/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-221504-5 DU	EB-1	Total/NA	Water	2320B-2011	
680-221590-5 DU	MCM-07	Total/NA	Water	2320B-2011	

Field Service / Mobile Lab

Analysis Batch: 741795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-1	MCM-18	Total/NA	Water	Field Sampling	
680-221504-2	MCM-19	Total/NA	Water	Field Sampling	
680-221504-6	MCM-06	Total/NA	Water	Field Sampling	
680-221504-7	MCM-20	Total/NA	Water	Field Sampling	
680-221504-8	DPZ-2	Total/NA	Water	Field Sampling	
680-221504-9	PT-01	Total/NA	Water	Field Sampling	
680-221504-10	PT-02	Total/NA	Water	Field Sampling	
680-221504-11	PT-03	Total/NA	Water	Field Sampling	
680-221504-12	DR-01	Total/NA	Water	Field Sampling	
680-221504-13	DR-02	Total/NA	Water	Field Sampling	

Analysis Batch: 742126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-1	MCM-01	Total/NA	Water	Field Sampling	
680-221590-2	MCM-02	Total/NA	Water	Field Sampling	
680-221590-3	MCM-04	Total/NA	Water	Field Sampling	
680-221590-4	MCM-05	Total/NA	Water	Field Sampling	
680-221590-5	MCM-07	Total/NA	Water	Field Sampling	
680-221590-6	MCM-11	Total/NA	Water	Field Sampling	
680-221590-7	MCM-12	Total/NA	Water	Field Sampling	
680-221590-8	MCM-14	Total/NA	Water	Field Sampling	
680-221590-9	MCM-15	Total/NA	Water	Field Sampling	
680-221590-10	MCM-16	Total/NA	Water	Field Sampling	
680-221590-11	MCM-17	Total/NA	Water	Field Sampling	
680-221590-15	PT-04D	Total/NA	Water	Field Sampling	

Client Sample ID: MCM-18

Lab Sample ID: 680-221504-1

Date Collected: 09/20/22 14:30

Matrix: Water

Date Received: 09/21/22 17:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		10	5 mL	5 mL	743228	10/03/22 16:32	UI	EET SAV
	Instrument ID: CICL									
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			595577	10/07/22 22:57	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			596288	10/13/22 21:48	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	250 mL	741757	09/22/22 14:42	RR	EET SAV
Total Recoverable	Analysis	6020B		1			741983	09/23/22 19:41	BWR	EET SAV
	Instrument ID: ICPMSC									
Total Recoverable	Prep	3005A			50 mL	250 mL	741757	09/22/22 14:42	RR	EET SAV
Total Recoverable	Analysis	6020B		10			742343	09/26/22 16:26	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Prep	7470A			50 mL	50 mL	742335	09/27/22 08:00	JKL	EET SAV
Total/NA	Analysis	7470A		0			742459	09/27/22 15:58	JKL	EET SAV
	Instrument ID: QuickTrace2									
Total/NA	Analysis	2320B-2011		1			742373	09/26/22 14:15	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	25 mL	200 mL	741871	09/23/22 10:39	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			741795	09/20/22 14:30	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: MCM-19

Lab Sample ID: 680-221504-2

Date Collected: 09/20/22 15:58

Matrix: Water

Date Received: 09/21/22 17:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		100	5 mL	5 mL	743228	10/03/22 16:44	UI	EET SAV
	Instrument ID: CICL									
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			595577	10/07/22 23:12	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		10			596288	10/13/22 21:54	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	250 mL	741757	09/22/22 14:42	RR	EET SAV
Total Recoverable	Analysis	6020B		1			741983	09/23/22 19:53	BWR	EET SAV
	Instrument ID: ICPMSC									
Total Recoverable	Prep	3005A			50 mL	250 mL	741757	09/22/22 14:42	RR	EET SAV
Total Recoverable	Analysis	6020B		10			742343	09/26/22 16:38	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Southern Company
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

Client Sample ID: MCM-19

Date Collected: 09/20/22 15:58
Date Received: 09/21/22 17:30

Lab Sample ID: 680-221504-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			50 mL	50 mL	742335	09/27/22 08:00	JKL	EET SAV
Total/NA	Analysis	7470A		1			742459	09/27/22 16:00	JKL	EET SAV
	Instrument ID: QuickTrace2									
Total/NA	Analysis	2320B-2011		1			742373	09/26/22 14:01	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	741871	09/23/22 10:39	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			741795	09/20/22 15:58	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: DUP-1

Date Collected: 09/20/22 00:00
Date Received: 09/21/22 17:30

Lab Sample ID: 680-221504-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		25	5 mL	5 mL	743228	10/03/22 16:57	UI	EET SAV
	Instrument ID: CICL									
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			595577	10/07/22 23:15	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		50			596288	10/13/22 22:00	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	250 mL	741757	09/22/22 14:42	RR	EET SAV
Total Recoverable	Analysis	6020B		1			741983	09/23/22 19:56	BWR	EET SAV
	Instrument ID: ICPMSC									
Total Recoverable	Prep	3005A			50 mL	250 mL	741757	09/22/22 14:42	RR	EET SAV
Total Recoverable	Analysis	6020B		10			742343	09/26/22 16:42	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Prep	7470A			50 mL	50 mL	742335	09/27/22 08:00	JKL	EET SAV
Total/NA	Analysis	7470A		1			742459	09/27/22 16:03	JKL	EET SAV
	Instrument ID: QuickTrace2									
Total Recoverable	Prep	3005A			25 mL	25 mL	420635	12/13/22 14:00	HCY	EET PIT
Total Recoverable	Analysis	EPA 6020B		1			420993	12/15/22 12:51	RSK	EET PIT
	Instrument ID: DORY									
Total/NA	Analysis	2320B-2011		1			742373	09/26/22 14:26	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	5 mL	200 mL	741871	09/23/22 10:39	PG	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: FB-1

Date Collected: 09/20/22 17:50
Date Received: 09/21/22 17:30

Lab Sample ID: 680-221504-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	743228	10/03/22 17:09	UI	EET SAV
	Instrument ID: CICL									
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			595577	10/07/22 23:37	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			596288	10/13/22 22:07	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	250 mL	741808	09/23/22 07:50	RR	EET SAV
Total Recoverable	Analysis	6020B		1			741983	09/24/22 04:06	BWR	EET SAV
	Instrument ID: ICPMSC									
Total Recoverable	Prep	3005A			50 mL	250 mL	741808	09/23/22 07:50	RR	EET SAV
Total Recoverable	Analysis	6020B		1			742343	09/26/22 17:24	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Prep	7470A			50 mL	50 mL	742335	09/27/22 08:00	JKL	EET SAV
Total/NA	Analysis	7470A		1			742459	09/27/22 16:11	JKL	EET SAV
	Instrument ID: QuickTrace2									
Total/NA	Analysis	2320B-2011		1			742373	09/26/22 14:32	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	200 mL	200 mL	741871	09/23/22 10:39	PG	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: EB-1

Date Collected: 09/20/22 17:40
Date Received: 09/21/22 17:30

Lab Sample ID: 680-221504-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	743228	10/03/22 17:21	UI	EET SAV
	Instrument ID: CICL									
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			595577	10/07/22 23:40	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			596288	10/13/22 22:13	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	250 mL	741743	09/22/22 14:18	RR	EET SAV
Total Recoverable	Analysis	6020B		1			741983	09/23/22 22:10	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Prep	7470A			50 mL	50 mL	742335	09/27/22 08:00	JKL	EET SAV
Total/NA	Analysis	7470A		1			742459	09/27/22 16:13	JKL	EET SAV
	Instrument ID: QuickTrace2									
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 18:51	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	200 mL	200 mL	741871	09/23/22 10:39	PG	EET SAV
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

Client Sample ID: MCM-06

Date Collected: 09/20/22 10:14
Date Received: 09/21/22 17:30

Lab Sample ID: 680-221504-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		25	5 mL	5 mL	743228	10/03/22 17:34	UI	EET SAV
	Instrument ID: CICL									
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	741800	09/23/22 05:58	RR	EET SAV
Dissolved	Prep	3005A			50 mL	250 mL	741803	09/23/22 05:58	RR	EET SAV
Dissolved	Analysis	6020B		1			741983	09/24/22 02:31	BWR	EET SAV
	Instrument ID: ICPMSC									
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			595577	10/07/22 23:43	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		50			596288	10/13/22 22:34	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	250 mL	741743	09/22/22 14:18	RR	EET SAV
Total Recoverable	Analysis	6020B		1			741983	09/23/22 22:14	BWR	EET SAV
	Instrument ID: ICPMSC									
Total Recoverable	Prep	3005A			50 mL	250 mL	741743	09/22/22 14:18	RR	EET SAV
Total Recoverable	Analysis	6020B		10			742343	09/26/22 16:06	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Prep	7470A			50 mL	50 mL	742335	09/27/22 08:00	JKL	EET SAV
Total/NA	Analysis	7470A		1			742459	09/27/22 16:16	JKL	EET SAV
	Instrument ID: QuickTrace2									
Total Recoverable	Prep	3005A			25 mL	25 mL	420635	12/13/22 14:00	HCY	EET PIT
Total Recoverable	Analysis	EPA 6020B		1			420993	12/15/22 13:01	RSK	EET PIT
	Instrument ID: DORY									
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 19:18	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	5 mL	200 mL	741871	09/23/22 10:39	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	4500 S2 F-2011		1	300 mL	300 mL	742189	09/26/22 10:22	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	Field Sampling		1			741795	09/20/22 10:14	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: MCM-20

Date Collected: 09/20/22 11:22
Date Received: 09/21/22 17:30

Lab Sample ID: 680-221504-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		50	5 mL	5 mL	743228	10/03/22 17:46	UI	EET SAV
	Instrument ID: CICL									
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	742387	09/27/22 11:29	RR	EET SAV
Dissolved	Prep	3005A			50 mL	250 mL	742388	09/27/22 11:35	RR	EET SAV
Dissolved	Analysis	6020B		1			742906	09/29/22 18:06	BWR	EET SAV
	Instrument ID: ICPMSC									

Client Sample ID: MCM-20

Lab Sample ID: 680-221504-7

Date Collected: 09/20/22 11:22

Matrix: Water

Date Received: 09/21/22 17:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			595577	10/07/22 23:46	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		50			596288	10/13/22 22:41	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	250 mL	741743	09/22/22 14:18	RR	EET SAV
Total Recoverable	Analysis	6020B		1			741983	09/23/22 21:51	BWR	EET SAV
	Instrument ID: ICPMSC									
Total Recoverable	Prep	3005A			50 mL	250 mL	741743	09/22/22 14:18	RR	EET SAV
Total Recoverable	Analysis	6020B		10			742343	09/26/22 15:51	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Prep	7470A			50 mL	50 mL	742335	09/27/22 08:00	JKL	EET SAV
Total/NA	Analysis	7470A		1			742459	09/27/22 16:18	JKL	EET SAV
	Instrument ID: QuickTrace2									
Total Recoverable	Prep	3005A			25 mL	25 mL	420635	12/13/22 14:00	HCY	EET PIT
Total Recoverable	Analysis	EPA 6020B		1			420993	12/15/22 13:17	RSK	EET PIT
	Instrument ID: DORY									
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 19:06	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	741871	09/23/22 10:39	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	4500 S2 F-2011		1	290 mL	290 mL	742189	09/26/22 10:22	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	Field Sampling		1			741795	09/20/22 11:22	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: DPZ-2

Lab Sample ID: 680-221504-8

Date Collected: 09/20/22 12:20

Matrix: Water

Date Received: 09/21/22 17:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		100	5 mL	5 mL	743856	10/06/22 16:18	AF	EET SAV
	Instrument ID: CICK									
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	741800	09/23/22 05:58	RR	EET SAV
Dissolved	Prep	3005A			50 mL	250 mL	741803	09/23/22 05:58	RR	EET SAV
Dissolved	Analysis	6020B		1			741983	09/24/22 02:42	BWR	EET SAV
	Instrument ID: ICPMSC									
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			595577	10/07/22 23:49	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	250 mL	741757	09/22/22 14:42	RR	EET SAV
Total Recoverable	Analysis	6020B		1			741983	09/23/22 20:00	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Southern Company
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

Client Sample ID: DPZ-2

Date Collected: 09/20/22 12:20
Date Received: 09/21/22 17:30

Lab Sample ID: 680-221504-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	250 mL	741757	09/22/22 14:42	RR	EET SAV
Total Recoverable	Analysis	6020B		10			742343	09/26/22 16:45	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Prep	7470A			50 mL	50 mL	742335	09/27/22 08:00	JKL	EET SAV
Total/NA	Analysis	7470A		1			742459	09/27/22 16:21	JKL	EET SAV
	Instrument ID: QuickTrace2									
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 19:24	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	741871	09/23/22 10:39	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	4500 S2 F-2011		1	300 mL	300 mL	742189	09/26/22 10:22	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	Field Sampling		1			741795	09/20/22 12:20	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: PT-01

Date Collected: 09/20/22 10:15
Date Received: 09/21/22 17:30

Lab Sample ID: 680-221504-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		25	5 mL	5 mL	743856	10/06/22 16:30	AF	EET SAV
	Instrument ID: CICK									
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	741800	09/23/22 05:58	RR	EET SAV
Dissolved	Prep	3005A			50 mL	250 mL	741803	09/23/22 05:58	RR	EET SAV
Dissolved	Analysis	6020B		1			741983	09/24/22 02:53	BWR	EET SAV
	Instrument ID: ICPMSC									
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			595577	10/07/22 23:52	NTH	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2540C-2011		1	5 mL	200 mL	741871	09/23/22 10:39	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	4500 S2 F-2011		1	300 mL	300 mL	742189	09/26/22 10:22	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	Field Sampling		1			741795	09/20/22 10:15	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: PT-02

Date Collected: 09/20/22 16:45
Date Received: 09/21/22 17:30

Lab Sample ID: 680-221504-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		25	5 mL	5 mL	743856	10/06/22 16:43	AF	EET SAV
	Instrument ID: CICK									

Lab Chronicle

Client: Southern Company
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

Client Sample ID: PT-02
Date Collected: 09/20/22 16:45
Date Received: 09/21/22 17:30

Lab Sample ID: 680-221504-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	741800	09/23/22 05:58	RR	EET SAV
Dissolved	Prep	3005A			50 mL	250 mL	741803	09/23/22 05:58	RR	EET SAV
Dissolved	Analysis	6020B		1			741983	09/24/22 02:46	BWR	EET SAV
	Instrument ID: ICPMSC									
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			595577	10/07/22 23:55	NTH	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2540C-2011		1	5 mL	200 mL	741871	09/23/22 10:39	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	4500 S2 F-2011		1	300 mL	300 mL	742189	09/26/22 10:22	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	Field Sampling		1			741795	09/20/22 16:45	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: PT-03
Date Collected: 09/20/22 16:28
Date Received: 09/21/22 17:30

Lab Sample ID: 680-221504-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		25	5 mL	5 mL	743856	10/06/22 16:56	AF	EET SAV
	Instrument ID: CICK									
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	741800	09/23/22 05:58	RR	EET SAV
Dissolved	Prep	3005A			50 mL	250 mL	741803	09/23/22 05:58	RR	EET SAV
Dissolved	Analysis	6020B		1			741983	09/24/22 02:50	BWR	EET SAV
	Instrument ID: ICPMSC									
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			595577	10/07/22 23:58	NTH	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2540C-2011		1	10 mL	200 mL	742241	09/26/22 13:05	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	4500 S2 F-2011		1	300 mL	300 mL	742189	09/26/22 10:22	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	Field Sampling		1			741795	09/20/22 16:28	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: DR-01
Date Collected: 09/20/22 15:15
Date Received: 09/21/22 17:30

Lab Sample ID: 680-221504-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		25	5 mL	5 mL	743937	10/06/22 21:37	T1C	EET SAV
	Instrument ID: CICL									
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	741800	09/23/22 05:58	RR	EET SAV
Dissolved	Prep	3005A			50 mL	250 mL	741803	09/23/22 05:58	RR	EET SAV
Dissolved	Analysis	6020B		1			741983	09/24/22 02:57	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Southern Company
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

Client Sample ID: DR-01

Date Collected: 09/20/22 15:15
Date Received: 09/21/22 17:30

Lab Sample ID: 680-221504-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			595577	10/08/22 00:01	NTH	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2540C-2011		1	5 mL	200 mL	742241	09/26/22 13:05	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	742189	09/26/22 10:22	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	Field Sampling		1			741795	09/20/22 15:15	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: DR-02

Date Collected: 09/20/22 15:05
Date Received: 09/21/22 17:30

Lab Sample ID: 680-221504-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		50	5 mL	5 mL	743856	10/06/22 19:52	AF	EET SAV
	Instrument ID: CICK									
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	741800	09/23/22 05:58	RR	EET SAV
Dissolved	Prep	3005A			50 mL	250 mL	741803	09/23/22 05:58	RR	EET SAV
Dissolved	Analysis	6020B		1			741983	09/24/22 03:09	BWR	EET SAV
	Instrument ID: ICPMSC									
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			595577	10/08/22 00:05	NTH	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742241	09/26/22 13:05	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	4500 S2 F-2011		1	290 mL	290 mL	742189	09/26/22 10:22	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	Field Sampling		1			741795	09/20/22 15:05	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: MCM-01

Date Collected: 09/21/22 18:08
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221590-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	744183	10/07/22 23:36	UI	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	594690	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 23:31	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B		1			742503	09/27/22 23:55	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Southern Company
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

Client Sample ID: MCM-01
Date Collected: 09/21/22 18:08
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221590-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			50 mL	50 mL	742786	09/29/22 10:35	JKL	EET SAV
Total/NA	Analysis	7470A		1			743020	09/30/22 10:52	JKL	EET SAV
	Instrument ID: QuickTrace2									
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 19:38	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	200 mL	200 mL	742241	09/26/22 13:05	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/21/22 18:08	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: MCM-02
Date Collected: 09/21/22 13:56
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221590-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	744183	10/07/22 23:49	UI	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	594690	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 23:35	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B		1			742503	09/27/22 23:36	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Prep	7470A			50 mL	50 mL	742786	09/29/22 10:35	JKL	EET SAV
Total/NA	Analysis	7470A		1			743020	09/30/22 10:54	JKL	EET SAV
	Instrument ID: QuickTrace2									
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 21:37	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	200 mL	200 mL	742241	09/26/22 13:05	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/21/22 13:56	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: MCM-04
Date Collected: 09/21/22 15:20
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221590-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	744183	10/08/22 00:02	UI	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	594690	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 23:38	NTH	EET PEN
	Instrument ID: Athena									

Lab Chronicle

Client: Southern Company
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

Client Sample ID: MCM-04

Date Collected: 09/21/22 15:20
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221590-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	250 mL	742784	09/29/22 10:24	RR	EET SAV
Total Recoverable	Analysis	6020B		1			743044	09/30/22 17:27	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Prep	7470A			50 mL	50 mL	742786	09/29/22 10:35	JKL	EET SAV
Total/NA	Analysis	7470A		1			743020	09/30/22 10:57	JKL	EET SAV
	Instrument ID: QuickTrace2									
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 19:49	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	50 mL	200 mL	742241	09/26/22 13:05	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/21/22 15:20	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: MCM-05

Date Collected: 09/21/22 15:20
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221590-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	744183	10/08/22 00:14	UI	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	300.0-1993 R2.1		10	5 mL	5 mL	744301	10/09/22 10:33	KMB	EET SAV
	Instrument ID: CICL									
Total Recoverable	Prep	3005A			50 mL	50 mL	594690	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 23:41	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B		1			742503	09/27/22 23:09	BWR	EET SAV
	Instrument ID: ICPMSC									
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B		10			742780	09/28/22 17:46	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Prep	7470A			50 mL	50 mL	742786	09/29/22 10:35	JKL	EET SAV
Total/NA	Analysis	7470A		1			743020	09/30/22 10:59	JKL	EET SAV
	Instrument ID: QuickTrace2									
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 21:08	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	25 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/21/22 15:20	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: MCM-07

Date Collected: 09/21/22 10:50
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221590-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	744183	10/08/22 00:27	UI	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	300.0-1993 R2.1		100	5 mL	5 mL	744301	10/09/22 10:46	KMB	EET SAV
	Instrument ID: CICL									
Total Recoverable	Prep	3005A			50 mL	50 mL	594690	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 23:44	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B		1			742503	09/27/22 23:21	BWR	EET SAV
	Instrument ID: ICPMSC									
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B		10			742780	09/28/22 17:58	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Prep	7470A			50 mL	50 mL	742786	09/29/22 10:35	JKL	EET SAV
Total/NA	Analysis	7470A		1			743020	09/30/22 11:02	JKL	EET SAV
	Instrument ID: QuickTrace2									
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 20:45	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/21/22 10:50	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: MCM-11

Date Collected: 09/21/22 11:26
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221590-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	744183	10/08/22 00:40	UI	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	594690	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 23:47	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B		1			742503	09/28/22 00:07	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Prep	7470A			50 mL	50 mL	742786	09/29/22 10:35	JKL	EET SAV
Total/NA	Analysis	7470A		1			743020	09/30/22 11:04	JKL	EET SAV
	Instrument ID: QuickTrace2									
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 21:23	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	200 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/21/22 11:26	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: MCM-12

Lab Sample ID: 680-221590-7

Date Collected: 09/21/22 11:10

Matrix: Water

Date Received: 09/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		5	5 mL	5 mL	744183	10/08/22 01:56	UI	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 20:01	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B		1			742503	09/28/22 00:03	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Prep	7470A			50 mL	50 mL	742786	09/29/22 10:35	JKL	EET SAV
Total/NA	Analysis	7470A		1			743020	09/30/22 11:07	JKL	EET SAV
	Instrument ID: QuickTrace2									
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 21:17	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	50 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/21/22 11:10	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: MCM-14

Lab Sample ID: 680-221590-8

Date Collected: 09/21/22 14:00

Matrix: Water

Date Received: 09/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	744183	10/08/22 02:08	UI	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	300.0-1993 R2.1		100	5 mL	5 mL	744301	10/09/22 10:58	KMB	EET SAV
	Instrument ID: CICL									
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 19:46	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B		1			742503	09/27/22 23:25	BWR	EET SAV
	Instrument ID: ICPMSC									
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B		10			742780	09/28/22 18:01	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Prep	7470A			50 mL	50 mL	742786	09/29/22 10:35	JKL	EET SAV
Total/NA	Analysis	7470A		1			743020	09/30/22 11:10	JKL	EET SAV
	Instrument ID: QuickTrace2									
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 19:56	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	5 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/21/22 14:00	T1C	EET SAV
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

Client Sample ID: MCM-15

Date Collected: 09/21/22 16:45
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221590-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	744183	10/08/22 02:21	UI	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 20:04	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B		1			742503	09/28/22 00:15	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Prep	7470A			50 mL	50 mL	742786	09/29/22 10:35	JKL	EET SAV
Total/NA	Analysis	7470A		1			743020	09/30/22 11:17	JKL	EET SAV
	Instrument ID: QuickTrace2									
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 20:02	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	200 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/21/22 16:45	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: MCM-16

Date Collected: 09/21/22 17:00
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221590-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	744183	10/08/22 01:18	UI	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 20:08	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B		1			742503	09/27/22 23:48	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Prep	7470A			50 mL	50 mL	742786	09/29/22 10:35	JKL	EET SAV
Total/NA	Analysis	7470A		1			743020	09/30/22 11:20	JKL	EET SAV
	Instrument ID: QuickTrace2									
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 20:23	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	200 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/21/22 17:00	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: MCM-17

Date Collected: 09/21/22 18:45
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221590-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		2	5 mL	5 mL	744183	10/08/22 02:34	UI	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	300.0-1993 R2.1		100	5 mL	5 mL	744301	10/09/22 11:10	KMB	EET SAV
	Instrument ID: CICL									
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 20:11	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B		1			742503	09/27/22 23:52	BWR	EET SAV
	Instrument ID: ICPMSC									
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B		10			742780	09/28/22 18:05	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Prep	7470A			50 mL	50 mL	742786	09/29/22 10:35	JKL	EET SAV
Total/NA	Analysis	7470A		1			743020	09/30/22 11:22	JKL	EET SAV
	Instrument ID: QuickTrace2									
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 21:44	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	5 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/21/22 18:45	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: DUP-2

Date Collected: 09/21/22 00:00
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221590-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	744183	10/08/22 03:12	UI	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 20:38	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			595577	10/07/22 21:30	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B		1			742503	09/27/22 23:59	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Prep	7470A			50 mL	50 mL	742786	09/29/22 10:35	JKL	EET SAV
Total/NA	Analysis	7470A		1			743020	09/30/22 11:25	JKL	EET SAV
	Instrument ID: QuickTrace2									
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 21:50	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: DUP-2

Lab Sample ID: 680-221590-12

Date Collected: 09/21/22 00:00

Matrix: Water

Date Received: 09/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540C-2011		1	200 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV

Client Sample ID: FB-2

Lab Sample ID: 680-221590-13

Date Collected: 09/21/22 17:25

Matrix: Water

Date Received: 09/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	744183	10/08/22 03:24	UI	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 20:41	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			595577	10/07/22 21:33	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B		1			742503	09/28/22 00:11	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Prep	7470A			50 mL	50 mL	742786	09/29/22 10:35	JKL	EET SAV
Total/NA	Analysis	7470A		1			743020	09/30/22 11:27	JKL	EET SAV
	Instrument ID: QuickTrace2									
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 21:55	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	200 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: EB-2

Lab Sample ID: 680-221590-14

Date Collected: 09/21/22 17:35

Matrix: Water

Date Received: 09/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	744183	10/08/22 03:37	UI	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 20:45	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			595577	10/07/22 21:36	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B		1			742503	09/27/22 23:32	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Prep	7470A			50 mL	50 mL	742786	09/29/22 10:35	JKL	EET SAV
Total/NA	Analysis	7470A		1			743020	09/30/22 11:30	JKL	EET SAV
	Instrument ID: QuickTrace2									

Lab Chronicle

Client: Southern Company
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

Client Sample ID: EB-2

Date Collected: 09/21/22 17:35
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221590-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 22:05	PG	EET SAV
Total/NA	Analysis	2540C-2011		1	200 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: PT-04D

Date Collected: 09/21/22 14:00
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221590-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		25	5 mL	5 mL	744183	10/08/22 02:46	UI	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	300.0-1993 R2.1		100	5 mL	5 mL	744301	10/09/22 11:23	KMB	EET SAV
	Instrument ID: CICL									
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	742387	09/27/22 11:29	RR	EET SAV
Dissolved	Prep	3005A			50 mL	250 mL	742388	09/27/22 11:35	RR	EET SAV
Dissolved	Analysis	6020B		1			742906	09/29/22 17:47	BWR	EET SAV
	Instrument ID: ICPMSC									
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 20:48	NTH	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	4500 S2 F-2011		1	300 mL	300 mL	742189	09/26/22 10:22	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	Field Sampling		1			742126	09/21/22 14:00	T1C	EET SAV
	Instrument ID: NOEQUIP									

[1] Completion dates and times are reported or not reported per method requirements or individual lab discretion.

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001
EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058
EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Southern Company
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Georgia	State	E87052	06-30-23

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

Laboratory: Eurofins Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-22 *
California	State	2891	04-30-23
Connecticut	State	PH-0688	09-30-22 *
Florida	NELAP	E871008	06-30-23
Georgia	State	PA 02-00416	04-30-23
Illinois	NELAP	004375	06-30-23
Kansas	NELAP	E-10350	03-31-23
Kentucky (UST)	State	162013	04-30-23
Kentucky (WW)	State	KY98043	12-31-22
Louisiana	NELAP	04041	06-30-22 *
Louisiana (All)	NELAP	04041	06-30-23
Maine	State	PA00164	03-06-24
Minnesota	NELAP	042-999-482	12-31-22
New Hampshire	NELAP	2030	04-04-23
New Jersey	NELAP	PA005	06-30-23
New York	NELAP	11182	04-01-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Southern Company
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

Laboratory: Eurofins Pittsburgh (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	434	12-31-22
North Dakota	State	R-227	04-30-23
Oregon	NELAP	PA-2151	02-07-23
Pennsylvania	NELAP	02-00416	04-30-23
Rhode Island	State	LAO00362	12-31-22
South Carolina	State	89014	04-20-23
Texas	NELAP	T104704528	03-31-23
US Fish & Wildlife	US Federal Programs	058448	03-31-23
USDA	US Federal Programs	P330-16-00211	06-21-24
Utah	NELAP	PA001462019-8	05-31-23
Virginia	NELAP	10043	09-14-23
West Virginia DEP	State	142	01-31-23
Wisconsin	State	998027800	08-31-23

Method Summary

Client: Southern Company
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

Method	Method Description	Protocol	Laboratory
300.0-1993 R2.1	Anions, Ion Chromatography	MCAWW	EET SAV
6020B	Metals (ICP/MS)	SW846	EET PEN
6020B	Metals (ICP/MS)	SW846	EET SAV
7470A	Mercury (CVAA)	SW846	EET SAV
EPA 6020B	Metals (ICP/MS)	SW846	EET PIT
2320B-2011	Alkalinity, Total	SM	EET SAV
2540C-2011	Total Dissolved Solids (Dried at 180 °C)	SM	EET SAV
4500 S2 F-2011	Sulfide, Total	SM	EET SAV
Field Sampling	Field Sampling	EPA	EET SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SAV
7470A	Preparation, Mercury	SW846	EET SAV
FILTRATION	Sample Filtration	None	EET SAV

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

244-ATLANTA

Client Information	Sampler: Will Lasker, Meredith Duncan, Kevin Stephenson	Lab PM: Fuller, David	Carrier Tracking No(s):	COC No: 680-138976-50655 1
Client Contact: Kristen Jurinko	Phone: 470-395-0650	E-Mail: David.Fuller@et.eurofinsus.com	State of Origin: GA	Page: Page 1 of 4
Company: Southern Company	PWSID:			Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone: 404-506-7116(Tel)	Lab Project #: 68027841			
Email: KNJURINK@SOUTHERNCO COM	Lab PO #: GPC82130-0001			
Project Name: Plant McManus Semi-Annual CCR	Project #:			
Site: McManus AP-1	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226 - Radium-226	9320_Ra228 - Radium-228	6020B - Metals - Custom List - SAV	300_ORGFM_28D - Chloride Fluoride Sulfate	6020B - Metals - Custom List - PIT	2540C - Solids, Total Dissolved (TDS)	2320B - Alkalinity, Total, Carb/Bicarb	SM4500_S2_F - Sulfide, Total	6020B - Dissolved Iron	6020B - Arsenic & Iron	Total Number of containers	Special Instructions/Note:
			Preservation Code.				D	D	D	N	D	N	N	CB	N	D		
MCM-01				Water														
MCM-02				Water														
MCM-04				Water														
MCM-05				Water														
MCM-07				Water														
MCM-11				Water														
MCM-12				Water														
MCM-14				Water														
MCM-15				Water														
MCM-16				Water														
MCM-17				Water														

680-221504 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II, III IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
William Lasker	9/21/22 1620	Resolute	BARBARA DILOLA	9-21-22 1620	Eurofins
			ap	9/21 17:30	ES

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:
		2.1 | 3.1 | 2.7 | 2.5 | 3.1
		2.0 | 3.0 | 2.6 | 2.4 | 3.0

Ver: 01/16/2019

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

ATLANTA - 24

eurofins Environment Testing America

Client Information	Sampler: Will Laaker, Meredith Duncan, Kevin Stephenson	Lab PM: Fuller, David	Carrier Tracking No(s):	COC No: 680-138976-50655.2
Client Contact: Kristen Jurinko	Phone: 470-895-0650	E-Mail: David.Fuller@et.eurofinsus.com	State of Origin: GA	Page: Page 2 of 4
Company: Southern Company	PWSID:			Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone: 404-506-7116(Tel)	Lab Project #: 68027841			
Email: KNJURINK@SOUTHERNCO.COM	Lab PO #: GPC82130-0001			
Project Name: Plant McManus Semi-Annual CCR	Project #:			
Site: McManus AP-1	SSOW#:			

Analysis Requested

Preservation Codes.

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226 - Radium-226	9320_Ra228 - Radium-228	6020B - Metals - Custom List SAV	300_ORGFM_28D - Chloride Fluoride Sulfate	6020B - Metals - Custom List - PIT	2540C - Solids, Total Dissolved (TDS)	2320B - Alkalinity, Total, Carb/Bicarb	SM4500_S2_F - Sulfide, Total	6020B - Dissolved Iron	6020B - Arsenic & Iron				Total Number of containers	pH Special Instructions/Note:
			Preservation Code:				D	D	D	N	D	N	N	CB	N	D					
MCM-18	9/20/22	1430	G	Water			X	X	X	X	X	X	X							7	4.47
MCM-19	9/20/22	1558	G	Water			X	X	X	X	X	X	X							7	5.14
DUP-1	9/20/22	—	G	Water			X	X	X	X	X	X	X							7	
DUP-2				Water																	
FB-1	9/20/22	1750	G	Water			X	X	X	X	X	X	X							7	
FB-2				Water																	
FB-3				Water																	
EB-1	9/20/22	1740	G	Water			X	X	X	X	X	X	X							7	
EB-2				Water																	
EB-3				Water																	
Extra 1				Water																	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II, III, IV, Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	William Laaker	9/21/22 1620	Resolute	Barbara DiCola	9-21-22 1620	Eurofins
2				ap	9/21 17:30	
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.

Cooler Temperature(s) °C and Other Remarks: 2.1 | 3.1 | 2.7 | 2.5 | 3.1 ; 2.0 | 3.0 | 2.6 | 2.4 | 3.0

Ver: 01/16/2019

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Will Lasker, Meredith Duncan, Kevin Stephenson	Lab PM: Fuller, David	Carrier Tracking No(s):	COC No: 680-138976-50655.3
Client Contact: Kristen Jurinko	Phone: 470-895-0650	E-Mail: David.Fuller@et.eurofinsus.com	State of Origin: GA	Page: Page 3 of 4
Company: Southern Company	PWSID:			Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone: 404-506-7116(Tel)	Lab Project #: 68027841			
Email: KNJURINK@SOUTHERNCO.COM	Lab PO #: GPC82130-0001			
Project Name: Plant McManus Semi-Annual CCR	Project #:			
Site: McManus AP-1	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify), Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226 - Radium-226	9320_Ra228 - Radium-228	6020B - Metals - Custom List - SAV	300_ORGFM_28D - Chloride Fluoride Sulfate	6020B - Metals - Custom List - PIT	2540C - Solids, Total Dissolved (TDS)	2320B - Alkalinity, Total, Carb/Bicarb	SM4500_S2_F - Sulfide, Total	6020B - Dissolved Iron	6020B - Arsenic & Iron				Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	D	N	D	N	N	CB	N	D					pH
Extra 2				Water																	
Extra 3				Water																	
Extra 4				Water																	
Extra 5				Water																	
MCM-06	9/20/22	1014	G	Water			X	X	X	X	X	X	X	X	X					10	7.29
MCM-20	9/20/22	1122	G	Water			X	X	X	X	X	X	X	X	X					10	3.63
DPZ-2	9/20/22	1220	G	Water			X	X	X	X	X	X	X	X	X					10	7.07
PT-01	9/20/22	1015	G	Water			X	X		X		X		X	X	X				8	7.12
PT-02	9/20/22	1645	G	Water			X	X		X		X		X	X	X				8	7.38
PT-03	9/20/22	1628	G	Water			X	X		X		X		X	X	X				8	7.30
PT-04D				Water																	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II, III, IV, Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
William Lasker	9/21/22 1620	Resolute	Barbara D. Cola	9-21-22 1620	Eurofins
			ap	9/21 17:30	E

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver 01/16/2019

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: William Lacker, Meredith Duncan, Kevin Stephenson	Lab PM: Fuller, David	Carrier Tracking No(s):	COC No: 680-138976-50655.4
Client Contact: Kristen Junnko	Phone: 470 - 395 - 0650	E-Mail: David.Fuller@et.eurofinsus.com	State of Origin: GA	Page: Page 4 of 4
Company: Southern Company	PWSID:			Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone: 404-506-7116(Tel)	Lab Project #: 68027841			
Email: KNJURINK@SOUTHERNCO COM	Lab PO #: GPC82130-0001			
Project Name: Plant McManus Semi-Annual CCR	Project #:			
Site: McManus AP-1	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226 - Radium-226	9320_Ra228 - Radium-228	6020B - Metals - Custom List - SAV	300_ORGFM_28D - Chloride Fluoride Sulfate	6020B - Metals - Custom List - PIT	2540C - Solids, Total Dissolved (TDS)	2320B - Alkalinity, Total, Carb/Bicarb	SM4500_S2_F - Sulfide, Total	6020B - Dissolved Iron	6020B - Arsenic & Iron				Total Number of containers	pH Special Instructions/Note:
			Preservation Code:				D	D	D	N	D	N	N	CB	N	D					
DR-01	9/20/22	1515	G	Water						X		X		X	X	X				6	7 36
DR-02	9/20/22	1505	G	Water						X		X		X	X	X				6	7 32

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	William Lacker	9/21/22 1620	Resolute	Barbara DiCola	9-21-22 1620	Eurofins
2				dp	9/21 17:30	
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No

Cooler Temperature(s) °C and Other Remarks:

Ver 01/16/2019

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

244-ATLANTA

Client Information	Sampler: Will Lacker, Meredith Duncan, Kevin Stephenson	Lab PM: Fuller, David	Carrier Tracking No(s):	COC No: 680-138976-50655.1
Client Contact: Kristen Junnko	Phone: 470-895-0650	E-Mail: David.Fuller@et.eurofinsus.com	State of Origin: GA	Page: Page 1 of 4
Company: Southern Company	PWSID:			Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone: 404-506-7116(Tel)	Lab Project #: 68027841			
Email: KNJURINK@SOUTHERNCO.COM	Lab PO #: GPC82130-0001			
Project Name: Plant McManus Semi-Annual CCR	Project #:			
Site: McManus AP-1	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Y - Trizma; Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226 - Radium-226	9320_Ra228 - Radium-228	6020B - Metals - Custom List - SAV	300_ORGFM_28D - Chloride Fluoride Sulfate	6020B - Metals - Custom List - PIT	2540C - Solids, Total Dissolved (TDS)	2320B - Alkalinity, Total, Carb/Bicarb	SM4500_S2_F - Sulfide, Total	6020B - Dissolved Iron	6020B - Arsenic & Iron			Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	D	N	D	N	N	CB	N	D				pH
MCM-01	9/21/22	1808	G	Water			X	X	X	X	X	X	X						1	4.95
MCM-02	9/21/22	1356	G	Water			X	X	X	X	X	X	X						1	5.14
MCM-04	9/21/22	1520	G	Water			X	X	X	X	X	X	X						1	5.34
MCM-05	9/21/22	1520	G	Water			X	X	X	X	X	X	X						1	6.93
MCM-07	9/21/22	1050	G	Water			X	X	X	X	X	X	X						1	6.27
MCM-11	9/21/22	1126	G	Water			X	X	X	X	X	X	X						1	4.97
MCM-12	9/21/22	1110	G	Water			X	X	X	X	X	X	X						1	6.30
MCM-14	9/21/22	1400	G	Water			X	X	X	X	X	X	X						1	6.61
MCM-15	9/21/22	1645	G	Water			X	X	X	X	X	X	X						1	5.23
MCM-16	9/21/22	1700	G	Water			X	X	X	X	X	X	X						1	4.91
MCM-17	9/21/22	1845	G	Water			X	X	X	X	X	X	X						1	6.72

680-221590 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II, III, IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
William Lacker	9/23/22 0910	Resolute		9/23/22 9:10	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 9-23-22 1040	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: 2.3/2.2 2.1/2.0 1.9/1.8 2.5/2.4

Ver: 01/16/2019

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins Environment Testing America

ATLANTA

Client Information	Sampler: Will Lacker, Meredith Duncan, Kevin Stephenson	Lab PM: Fuller, David	Carrier Tracking No(s):	COC No: 680-136976-50655.2
Client Contact: Kristen Jurinko	Phone: 470-895-0650	E-Mail: David.Fuller@et.eurofinsus.com	State of Origin: GA	Page: Page 2 of 4
Company: Southern Company	PWSID:			Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone: 404-506-7116(Tel)	Lab Project #: 68027841			
Email: KNJURINK@SOUTHERNCO.COM	Lab PO #: GPC82130-0001			
Project Name: Plant McManus Semi-Annual CCR	Project #:			
Site: McManus AP-1	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226 - Radium-226	9320_Ra228 - Radium-228	6020B - Metals - Custom List - SAV	300_ORGFM_28D - Chloride Fluoride Sulfate	6020B - Metals - Custom List - PIT	2540C - Solids, Total Dissolved (TDS)	2320B - Alkalinity, Total, Carb/Bicarb	SM4500_S2_F - Sulfide, Total	6020B - Dissolved Iron	6020B - Arsenic & Iron				Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	D	N	D	N	N	CB	N	D					pH
MCM-18				Water																	
MCM-19				Water																	
DUP-1				Water																	
DUP-2	9/21/22	—	G	Water			X	X	X	X	X	X	X							7	
FB-1				Water																	
FB-2	9/21/22	1725	G	Water			X	X	X	X	X	X	X							7	
FB-3				Water																	
EB-1				Water																	
EB-2	9/21/22	1735	G	Water			X	X	X	X	X	X	X							7	
EB-3				Water																	
Extra 1				Water																	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II, III, IV, Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
William Lacker	9/23/22 0910	Resolute		9/23/22 9:10	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
				9.23.22 1040	M
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:
		2.6/2.5

Ver: 01/16/2019

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Will Lasker, Meredith Duncan, Kevin Stephenson	Lab PM: Fuller, David	Carrier Tracking No(s):	COC No: 680-138976-50655.3
Client Contact: Kristen Jurinko	Phone: 470-895-0650	E-Mail: David.Fuller@et.eurofinsus.com	State of Origin: GA	Page: Page 3 of 4
Company: Southern Company	PWSID:	Analysis Requested		Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:			Preservation Codes: A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Y - Trizma; Z - other (specify); Other:
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone: 404-506-7116(Tel)	Lab Project #: 68027841			
Email: KNJURINK@SOUTHERNCO.COM	Lab PO #: GPC82130-0001			
Project Name: Plant McManus Semi-Annual CCR	Project #:			
Site: McManus AP-1	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226 - Radium-226	9320_Ra228 - Radium-228	6020B - Metals - Custom List - SAV	300_ORGFM_28D - Chloride Fluoride Sulfate	6020B - Metals - Custom List - PIT	2540C - Solids, Total Dissolved (TDS)	2320B - Alkalinity, Total, Carb/Bicarb	SM4500_S2_F - Sulfide, Total	6020B - Dissolved Iron	6020B - Arsenic & Iron				Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	D	N	D	N	N	CB	N	D					pH
Extra 2				Water																	
Extra 3				Water																	
Extra 4				Water																	
Extra 5				Water																	
MCM-06				Water																	
MCM-20				Water																	
DPZ-2				Water																	
PT-01				Water																	
PT-02				Water																	
PT-03				Water																	
PT-04D	9/21/22	1400	G	Water			X	X		X		X		X	X	X				8	7 20

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II, III, IV, Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
William Lasker	9/23/22 0910	Resolute		9/23/22 9:10	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 9-23-22 1890	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver 01/16/2019

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Will Lacker, Meredith Duncan, Kevin Stephenson	Lab PM: Fuller, David	Carrier Tracking No(s):	COC No: 680-138976-50655.4
Client Contact: Kristen Jurinko	Phone: 470-895-0650	E-Mail: David.Fuller@et.eurofinsus.com	State of Origin: GA	Page: Page 4 of 4
Company: Southern Company	PWSID:			Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone: 404-506-7116(Tel)	Lab Project #: 68027841			
Email: KNJURINK@SOUTHERNCO.COM	Lab PO #: GPC82130-0001			
Project Name: Plant McManus Semi-Annual CCR	Project #:			
Site: McManus AP-1	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226 - Radium-226	9320_Ra228 - Radium-228	6020B - Metals - Custom List - SAV	300_ORGFM_28D - Chloride Fluoride Sulfate	6020B - Metals - Custom List - PIT	2540C - Solids, Total Dissolved (TDS)	2320B - Alkalinity, Total, Carb/Bicarb	SM4500_S2_F - Sulfide, Total	6020B - Dissolved Iron	6020B - Arsenic & Iron				Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	D	N	D	N	N	CB	N	D					pH
DR-01				Water																	
DR-02				Water																	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
William Lacker	9/23/22 0910	Resolute		9/23/22 9:10	
Relinquished by:	Date/Time:	Company	Received by:	9-23-22 1040	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No

Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone: 912-354-7858 Fax: 912-352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fuller, David	Carrier Tracking No(s):	COC No: 680-709179.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: David.Fuller@et.eurofinsus.com	State of Origin: Georgia	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - Georgia		Job #: 680-221504-1
Address: 13715 Rider Trail North,	Due Date Requested: 10/5/2022			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #			
Email:	WO #			
Project Name: Plant McManus AP1	Project #: 68027841			
Site:	SSOW#:			

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320_Ra228/PrecSep_0 Radium-228	9315_Ra226/PrecSep_21 Radium-226	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
MCM-18 (680-221504-1)	9/20/22	14:30 Eastern		Water			X	X	X	2	
MCM-19 (680-221504-2)	9/20/22	15:58 Eastern		Water			X	X	X	2	
DUP-1 (680-221504-3)	9/20/22	Eastern		Water			X	X	X	2	
FB-1 (680-221504-4)	9/20/22	17:50 Eastern		Water			X	X	X	2	
EB-1 (680-221504-5)	9/20/22	17:40 Eastern		Water			X	X	X	2	
MCM-06 (680-221504-6)	9/20/22	10:14 Eastern		Water			X	X	X	2	
MCM-20 (680-221504-7)	9/20/22	11:22 Eastern		Water			X	X	X	2	
DPZ-2 (680-221504-8)	9/20/22	12:20 Eastern		Water			X	X	X	2	
PT-01 (680-221504-9)	9/20/22	10:15 Eastern		Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Southeast, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
CJ 9/22/22 1700 FED EX			FED EX		
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
			Sierra Worthington	SEP 23 2022 0840	ETAS
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks

Ver: 06/08/2021

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone: 912-354-7858 Fax: 912-352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fuller, David	Carrier Tracking No(s):	COC No: 680-709179.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: David.Fuller@et.eurofinsus.com	State of Origin: Georgia	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - Georgia		Job #: 680-221504-1
Address: 13715 Rider Trail North,	Due Date Requested: 10/5/2022			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Plant McManus AP1	Project #: 68027841			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320_Ra228/PrecSep_0 Radium-228	9315_Ra226/PrecSep_21 Radium-226	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
PT-02 (680-221504-10)	9/20/22	16:45 Eastern		Water			X	X	X	2	
PT-03 (680-221504-11)	9/20/22	16:28 Eastern		Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southeast, LLC.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:
Empty Kit Relinquished by:	Date: Time: Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
GJ 9/22/22 FED EX 1400			FED EX		
Relinquished by	Date/Time	Company	Received by: Jina Wethington	Date/Time: SEP 23 2022 0840	Company: EMSL
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001 Fax: 850-478-2671

Chain of Custody Record

eurofins
Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fuller, David	Carrier Tracking No(s):	COC No: 400-309285.1
Client Contact: Shipping/Receiving	Phone.	E-Mail: David.Fuller@et.eurofinsus.com	State of Origin: Georgia	Page: Page 1 of 1
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): State - Georgia		Job #: 680-221504-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 10/6/2022			
City: Pittsburgh	TAT Requested (days):			
State, Zip: PA, 15238				
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:			
Email.	WO #:			
Project Name: Plant McManus AP1	Project #: 68027841			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B/3005A Lithium	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
DUP-1 (680-221504-3)	9/20/22	Eastern		Water			X	1	
MCM-06 (680-221504-6)	9/20/22	10:14 Eastern		Water			X	1	
MCM-20 (680-221504-7)	9/20/22	11:22 Eastern		Water			X	1	

Note. Since laboratory accreditations are subject to change, Eurofins Environment Testing Southeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southeast, LLC

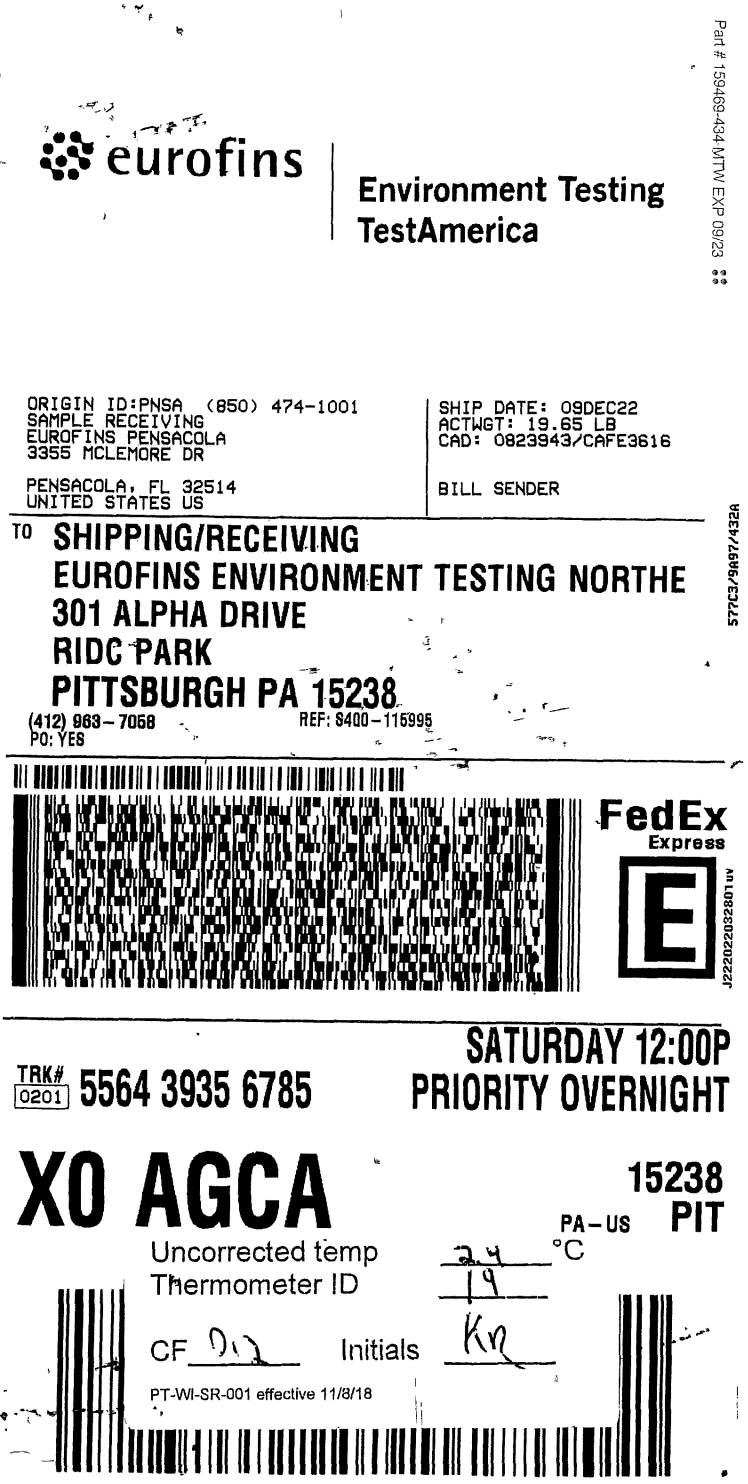
Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 9/21/22 1700	Company: EES	Received by:	Date/Time: 9/19/22 530	Company: EEA
Relinquished by:	Date/Time.	Company	Received by:	Date/Time.	Company
Relinquished by.	Date/Time:	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021


eurofins
Environment Testing
TestAmerica
Part # 159469-434 MTW EXP 09/23
ORIGIN ID:PNSA (850) 474-1001
SAMPLE RECEIVING
EUROFINS PENSACOLA
3355 MCLEMORE DR
PENSACOLA, FL 32514
UNITED STATES US
SHIP DATE: 09DEC22
ACTWGT: 19.65 LB
CAD: 0823943/CAFE3616
BILL SENDER
TO SHIPPING/RECEIVING
EUROFINS ENVIRONMENT TESTING NORTHE
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7058
REF: 8400-115995
PO: YES
577C3/9A97/432A
FedEx
Express
TRK# 0201 5564 3935 6785
SATURDAY 12:00P
PRIORITY OVERNIGHT
XO AGCA
15238
PA-US
PIT
Uncorrected temp
Thermometer ID
CF
Initials
PT-WI-SR-001 effective 11/8/18

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone: 912-354-7858 Fax: 912-352-0165

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fuller, David	Carrier Tracking No(s).	COC No: 680-709181.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: David.Fuller@et.eurofinsus.com	State of Origin: Georgia	Page: Page 1 of 2
Company: Eurofins Environment Testing Southeast,		Accreditations Required (See note): State - Georgia		Job #: 680-221504-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 10/5/2022			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Plant McManus AP1	Project #: 68027841			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B/3005A Custom- 6	6020B/3005A Arsenic & Iron	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
MCM-18 (680-221504-1)	9/20/22	14:30 Eastern		Water			X		1	
MCM-19 (680-221504-2)	9/20/22	15:58 Eastern		Water			X		1	
DUP-1 (680-221504-3)	9/20/22	Eastern		Water			X		1	
FB-1 (680-221504-4)	9/20/22	17:50 Eastern		Water			X		1	
EB-1 (680-221504-5)	9/20/22	17:40 Eastern		Water			X		1	
MCM-06 (680-221504-6)	9/20/22	10:14 Eastern		Water			X		1	
MCM-20 (680-221504-7)	9/20/22	11:22 Eastern		Water			X		1	
DPZ-2 (680-221504-8)	9/20/22	12:20 Eastern		Water			X		1	
PT-01 (680-221504-9)	9/20/22	10:15 Eastern		Water				X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Southeast, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
CJ 9/22/22 1700			MD	9/23/22 0859	GEL
Relinquished by:	Date/Time	Company	Received by	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
		0.0, 2.5 C IR9

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 680-221504-1

Login Number: 221504
List Number: 1
Creator: Padayao, Abigail

List Source: Eurofins Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 680-221504-1

Login Number: 221504
List Number: 3
Creator: Roberts, Alexis J

List Source: Eurofins Pensacola
List Creation: 09/23/22 01:27 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C, 2.5°C IR9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 680-221504-1

Login Number: 221504
List Number: 4
Creator: Kovitch, Christina M

List Source: Eurofins Pittsburgh
List Creation: 12/10/22 02:43 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 680-221504-1

Login Number: 221590
List Number: 1
Creator: Sims, Robert D

List Source: Eurofins Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 680-221504-1

Login Number: 221590
List Number: 2
Creator: Whitley, Adrian

List Source: Eurofins Pensacola
List Creation: 09/24/22 11:16 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4, 1.7°C IR8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ENVIRONMENTAL® STANDARDS

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Stage 2A Data Verification Report
Georgia Power
McManus Fossil Plant
Coal Combustion Residuals Project
Groundwater Samples

This quality assurance (QA) review is based upon an examination of the data generated from the analyses of the eight groundwater samples collected as part of the June 2022 dike well supplemental sampling event at the Georgia Power McManus Fossil Plant facility. These samples were collectively analyzed by Pace Analytical Services, LLC in Minneapolis, Minnesota (Pace Minneapolis) and Asheville, North Carolina (Pace Asheville) for total and dissolved metals by SW-846 Method 6010D; for total and dissolved metals by SW-846 Method 6020B; for total dissolved solids (TDS) by Standard Method (SM) 2540C; for sulfate by US EPA Method 300.0; for chloride by SM 4500-Cl-E; for sulfide by SM 4500-S2D; and for alkalinity by SM 2320B.

This review was performed with guidance from the US EPA Region IV Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (November 2001); the US EPA Region IV Data Validation Standard Operating Procedures (SOPs; US EPA Region IV, September 2011); and the applied analytical methods. These validation guidance documents, with the exception of the analytical methods, specifically address analyses performed in accordance with the Contract Laboratory Program (CLP) analytical methods and are not completely applicable to the type of analyses and analytical protocols performed for the SM, SW-846, and US EPA methods utilized by the laboratory for these samples. Environmental Standards, Inc. (Environmental Standards) used professional judgment to determine the usability of the analytical results and compliance relative to the SM, SW-846, and US EPA methods utilized by the laboratory.

Summary

The analytical results and associated laboratory quality control (QC) samples were reviewed to determine the integrity of the reported analytical results and to verify that the data met the established data quality objectives.

The samples collected 6/28/2022 were evaluated as part of this QA review.

The following samples were evaluated as part of this QA review: PT-01, PT-02, PT-03, PT-04D, DR-01, DR-02, MCM-06 and DPZ-02

The following Pace inorganic SDG was evaluated as part of this QA review: 92612546.

All data are considered usable as reported, or usable after integration of data validation qualifications.

Inorganic Data Review

Data validation was performed for these samples based on the sample results, summary QC data, and raw data provided by the laboratory. The findings offered in this report for the inorganic analyses are based upon a review of the following QC measures:

- Sample condition upon laboratory receipt
- Chain-of-Custody (COC) Records
- Blank analysis results
- Laboratory control sample (LCS) recoveries
- Laboratory duplicate precision
- Sample holding times
- Case Narratives
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries and precision
- Field duplicate precision
- Total and dissolved result precision

The above QC measures were evaluated against the analytical method requirements and QC acceptance criteria. The data were validated based on guidance from the US EPA Region IV Data Validation SOPs, the referenced procedures, and were qualified as appropriate as described in the sections below.

Comments and Exceptions

1. The laboratory did not provide a Case Narrative associated with the inorganic analyses. As this item was not needed to complete the data validation, the laboratory had not been requested to provide this information. Qualification of data due to this issue was not warranted.

2. The following field duplicate pairs (see table) were submitted and analyzed for inorganic parameters with this data set. Acceptable precision and sample representativeness were demonstrated by the reported results in the field duplicate pair evaluation (the relative percent difference [RPD] between results was ≤ 20% when both results were ≥ 5× the

reporting limit [RL] or the difference between results was ≤ the RL when at least one result was < 5× the RL).

Laboratory SDG(s)	Sample	Field Duplicate
92612546	PT-03	DUP-1

Overall Assessment of Data

Based on a review of the data, qualification of data was warranted as noted below.

Laboratory SDG	Sample(s)	Analyte(s)	Qualifier	Reason for Qualification
92612546	all samples	sulfate	J	M- – Low MS/MSD recoveries
92612546	PT-03, DR-2, and MCM-06	total sodium and dissolved sodium	J	FG – Total versus dissolved imprecision
92612546	DPZ-02	total arsenic and dissolved arsenic	J	FG – Total versus dissolved imprecision

- All inorganic positive results reported between the method detection limit (MDL) and RL have been flagged “J”.

Report prepared by: Wendy Zhou, Quality Assurance Chemist
Report reviewed by: Alyssa M. Reed, Senior Quality Assurance Chemist/Project Manager
Report approved by: David I. Thal, CEAC, CQA, Principal Chemist
Date: 11/22/2022

INORGANIC DATA QUALIFIERS

U - The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit.

U* - This analyte should be considered “not-detected” because it was detected in an associated blank at a similar level.

UJ - The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J - The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R - The data are unusable. The sample results are rejected due to serious analytical deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.

UR - The analyte was analyzed for, but was not detected above the level of the reported sample reporting or method detection; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.

Reason Codes and Explanations

Reason Code	Explanation
BE	Equipment blank contamination.
BF	Field blank contamination.
BL	Laboratory blank contamination.
BN	Negative laboratory blank contamination.
C	Initial and/or continuing calibration issue, indeterminate bias.
C+	Initial and/or continuing calibration issue. The result may be biased high.
C-	Initial and/or continuing calibration issue. The result may be biased low.
FD	Field duplicate imprecision.
FG	Total versus dissolved imprecision.
H	Holding time exceeded.
I	Internal standard recovery outside of acceptance limits.
L	LCS and LCSD recoveries outside of acceptance limits, indeterminate bias.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
LD	Laboratory duplicate imprecision.
LP	LCS/LCSD imprecision.
M	MS and MSD recoveries outside of acceptance limits, indeterminate bias.
M+	MS and/or MSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.
MP	MS/MSD imprecision.
P	Post-digestion spike recoveries outside of acceptance limits, indeterminate bias.
P+	Post-digestion spike recovery outside of acceptance limits. The result may be biased high.
P-	Post-digestion spike recovery outside of acceptance limits. The result may be biased low.
Q	Chemical preservation issue.
R	RL standards outside of acceptance limits, indeterminate bias.
R+	RL standard(s) outside of acceptance limits. The result may be biased high.
R-	RL standard(s) outside of acceptance limits. The result may be biased low.
T	Temperature preservation issue.
SD	Serial dilution imprecision.
Y	Chemical yields outside of acceptance limits, indeterminate bias.
Y+	Chemical yield(s) outside of acceptance limits. The result may be biased high.
Y-	Chemical yield(s) outside of acceptance limits. The result may be biased low.
ZZ	Other

ENVIRONMENTAL® STANDARDS

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Stage 2A Revised Data Verification Report
Georgia Power
McManus Fossil Plant
Coal Combustion Residuals Project
Groundwater Samples

This revised quality assurance (QA) review is based upon an examination of the data generated from the analyses of the 22 groundwater samples collected as part of the September 2022 semi-annual monitoring at the Georgia Power McManus Fossil Plant facility. These samples were collectively analyzed by Eurofins Environment Testing Southeast, LLC in Savannah, Georgia (Eurofins Savannah), and Pensacola, Florida (Eurofins Pensacola), and Eurofins Environment Testing Northeast, LLC in Pittsburgh, Pennsylvania (Eurofins Pittsburgh), for total and dissolved metals by SW-846 Method 6020B; for mercury by SW-846 Method 7470A; for total dissolved solids (TDS) by Standard Method (SM) 2540C; for anions (specifically, chloride, fluoride, and sulfate) by US EPA Method 300.0; for total sulfide by SM 4500S2-F; and for alkalinity by SM 2320B.

This review was performed with guidance from the US EPA Region IV Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (November 2001); the US EPA Region IV Data Validation Standard Operating Procedures (SOPs; US EPA Region IV, September 2011); and the applied analytical methods. These validation guidance documents, with the exception of the analytical methods, specifically address analyses performed in accordance with the Contract Laboratory Program (CLP) analytical methods and are not completely applicable to the type of analyses and analytical protocols performed for the SM, SW-846, and US EPA methods utilized by the laboratory for these samples. Environmental Standards, Inc. (Environmental Standards) used professional judgment to determine the usability of the analytical results and compliance relative to the SM, SW-846, and US EPA methods utilized by the laboratory.

Summary

The analytical results and associated laboratory quality control (QC) samples were reviewed to determine the integrity of the reported analytical results and to verify that the data met the established data quality objectives.

The samples collected 9/20/2022 and 9/21/2022 were evaluated as part of this QA review.

The following samples were evaluated as part of this QA review: MCM-18, MCM-19, MCM-06, MCM-20, DPZ-2, PT-01, PT-02, PT-03, DR-01, DR-02, MCM-01, MCM-02, MCM-04, MCM-05, MCM-07, MCM-11, MCM-12, MCM-14, MCM-15, MCM-16, MCM-17, and PT-04D.

The following Eurofins inorganic SDG was evaluated as part of this QA review: 680-221504-1.

All data are considered usable as reported, or usable after integration of data validation qualifications.

Inorganic Data Review

Data validation was performed for these samples based on the sample results, summary QC data, and raw data provided by the laboratory. The findings offered in this report for the inorganic analyses are based upon a review of the following QC measures:

- Sample condition upon laboratory receipt
- Chain-of-Custody (COC) Records
- Blank analysis results
- Laboratory control sample (LCS) recoveries
- Laboratory duplicate precision
- Sample holding times
- Case Narratives
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries and precision
- Field duplicate precision

The above QC measures were evaluated against the analytical method requirements and QC acceptance criteria. The data were validated based on guidance from the US EPA Region IV Data Validation SOPs, the referenced procedures, and were qualified as appropriate as described in the sections below.

Comments and Exceptions

1. During review, it was noted that all results for samples analyzed by SW-846 Method 6020B at Pace Pensacola (specifically, antimony, arsenic, iron, boron, chromium, and lead) were reported at a 5-fold dilution. Upon Environmental Standards' inquiry, the laboratory noted that Pace Pensacola uses a standard 5× dilution for all aqueous samples, including QC samples. Qualification of data due to this issue was not warranted.

2. During review, it was noted that several lithium results had been reported as "not-detected" from an analysis at a dilution. Upon Environmental Standards' inquiry, the laboratory indicated they observed interferences in the analysis of the samples as evidenced by failing internal standards or negative instrument readings greater than the

absolute value of the reporting limit. Due to these issues, which are not part of a standard Stage 2A review, the laboratory reanalyzed the samples at a dilution to mitigate the interferences. Qualification of data due to this issue was not warranted.

3. The laboratory issued a revised laboratory report on November 18, 2022, in order to correct several metals results that had been reported at a 50×, 100×, and 500× dilution. The laboratory had implemented updated control limits for internal standards; therefore, the 5× dilution analysis was able to be reported for these analytes. The data reviewer evaluated the updated metals results and applied qualification as required as addressed in the Overall Assessment of Data section.

4. The laboratory issued a second revised laboratory report on December 16, 2022, to correct the lithium results for samples MCM-06, MCM-20 and DUP-1. The lithium detection limits reported by Pace Pensacola did not meet the data quality objectives for the site, so the samples were subcontracted to Pace Pittsburgh for reanalysis. The laboratory reported both the Pace Pensacola initial analysis and Pace Pittsburgh reanalysis in the data package and electronic data deliverable (EDD) for these samples. The data reviewer evaluated the updated lithium results and applied qualification as required as addressed in the Overall Assessment of Data section.

5. The following field duplicate pairs (see table) were submitted and analyzed for inorganic parameters with this data set. Acceptable precision and sample representativeness were demonstrated by the reported results in the field duplicate pair evaluation (the relative percent difference [RPD] between results was ≤ 20% when both results were ≥ 5× the reporting limit [RL] or the difference between results was ≤ the RL when at least one results was < 5x the RL), with any exceptions noted below.

Laboratory SDG(s)	Sample	Field Duplicate
680-221504-1	MCM-06	DUP-1
680-221504-1	MCM-15	DUP-2

Overall Assessment of Data

Based on a review of the data, qualification of data was warranted as noted below.

Laboratory SDG	Sample(s)	Analyte(s)	Qualifier	Reason for Qualification
680-221504-1	MCM-01, MCM-16, MCM-04, MCM-05, MCM-07, MCM-11, MCM-14, and MCM-15	chromium	U*	BF – field blank contamination
680-221504-1	MCM-16	boron	U*	BF – field blank contamination
680-221504-1	MCM-01, MCM-02, MCM-04, MCM-05, and MCM-11	boron	U*	BL – laboratory blank contamination

Laboratory SDG	Sample(s)	Analyte(s)	Qualifier	Reason for Qualification
680-221504-1	MCM-01, MCM-02, MCM-05, MCM-07, MCM-11, MCM-12, MCM-14, MCM-15, MCM-16, and MCM-17	selenium	UJ	M- – Low MS/MSD recoveries
680-221504-1	MCM-06, MCM-20, DPZ-2, PT-01, PT-02, PT-03, DR-01, DR-02 and PT-04D	sulfide	J	M- – Low MS/MSD recoveries
680-221504-1	MCM-06	chloride	J	FD – Field duplicate imprecision

- All inorganic positive results reported between the method detection limit (MDL) and RL have been flagged “J”.

Report prepared by: Wendy Zhou, Senior Quality Assurance Chemist
Report reviewed by: Alyssa M. Reed, Senior Quality Assurance Chemist/Project Manager
Report approved by: David I. Thal, CEAC, CQA, Principal Chemist
Date: 12/28/2022

INORGANIC DATA QUALIFIERS

U - The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit.

U* - This analyte should be considered “not-detected” because it was detected in an associated blank at a similar level.

UJ - The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J - The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R - The data are unusable. The sample results are rejected due to serious analytical deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.

UR - The analyte was analyzed for, but was not detected above the level of the reported sample reporting or method detection; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.

Reason Codes and Explanations

Reason Code	Explanation
BE	Equipment blank contamination.
BF	Field blank contamination.
BL	Laboratory blank contamination.
BN	Negative laboratory blank contamination.
C	Initial and/or continuing calibration issue, indeterminate bias.
C+	Initial and/or continuing calibration issue. The result may be biased high.
C-	Initial and/or continuing calibration issue. The result may be biased low.
FD	Field duplicate imprecision.
FG	Total versus dissolved imprecision.
H	Holding time exceeded.
I	Internal standard recovery outside of acceptance limits.
L	LCS and LCSD recoveries outside of acceptance limits, indeterminate bias.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
LD	Laboratory duplicate imprecision.
LP	LCS/LCSD imprecision.
M	MS and MSD recoveries outside of acceptance limits, indeterminate bias.
M+	MS and/or MSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.
MP	MS/MSD imprecision.
P	Post-digestion spike recoveries outside of acceptance limits, indeterminate bias.
P+	Post-digestion spike recovery outside of acceptance limits. The result may be biased high.
P-	Post-digestion spike recovery outside of acceptance limits. The result may be biased low.
Q	Chemical preservation issue.
R	RL standards outside of acceptance limits, indeterminate bias.
R+	RL standard(s) outside of acceptance limits. The result may be biased high.
R-	RL standard(s) outside of acceptance limits. The result may be biased low.
T	Temperature preservation issue.
SD	Serial dilution imprecision.
Y	Chemical yields outside of acceptance limits, indeterminate bias.
Y+	Chemical yield(s) outside of acceptance limits. The result may be biased high.
Y-	Chemical yield(s) outside of acceptance limits. The result may be biased low.
ZZ	Other

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Stage 2A Data Verification Report
Georgia Power
McManus Fossil Plant
Coal Combustion Residuals Project
Groundwater Samples

This quality assurance (QA) review is based upon an examination of the data generated from the analyses of the 20 groundwater samples collected as part of the September 2022 semi-annual monitoring at the Georgia Power McManus Fossil Plant facility. These samples were collectively analyzed by TestAmerica Laboratories, Inc. of Earth City, Missouri (Eurofins St. Louis), for radium-226 by SW-846 Method 9315, for radium-228 by SW-846 Method 9320, and for combined radium-226+228 by calculation.

This review was performed with guidance from the US EPA Region IV Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (November 2001); the US EPA Region IV Data Validation Standard Operating Procedures (SOPs; US EPA Region IV, September 2011); and the applied analytical methods. These validation guidance documents, with the exception of the analytical methods, specifically address analyses performed in accordance with the Contract Laboratory Program (CLP) analytical methods and are not completely applicable to the type of analyses and analytical protocols performed for the SW-846 methods utilized by the laboratory for these samples. Environmental Standards, Inc. (Environmental Standards) used professional judgment to determine the usability of the analytical results and compliance relative to the SW-846 methods utilized by the laboratory.

Summary

The analytical results and associated laboratory quality control (QC) samples were reviewed to determine the integrity of the reported analytical results and to verify that the data met the established data quality objectives.

The samples collected 9/20/2022 and 9/21/2022 were evaluated as part of this QA review.

The following samples were evaluated as part of this QA review: MCM-18, MCM-19, MCM-06, MCM-20, DPZ-2, PT-01, PT-02, PT-03, MCM-01, MCM-02, MCM-04, MCM-05, MCM-07, MCM-11, MCM-12, MCM-14, MCM-15, MCM-16, MCM-17, and PT-04D.

The following Eurofins radiological SDGs were evaluated as part of this QA review: 680-221504-2.

All data are considered usable as reported, or usable after integration of data validation qualifications.

Radiological Data Review

Data validation was performed for these samples based on the sample results, summary QC data, and raw data provided by the laboratory. The findings offered in this report for the radiological analyses are based upon a review of the following QC measures:

- Sample condition upon laboratory receipt
- Chain-of-Custody (COC) Records
- Blank analysis results
- Laboratory control sample (LCS) recoveries
- Laboratory duplicate precision
- Sample holding times
- Case Narratives
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries and precision
- Field duplicate precision
- Chemical Yield

The above QC measures were evaluated against the analytical method requirements and QC acceptance criteria. The data were validated based on guidance from the US EPA Region IV Data Validation SOPs, the referenced procedures, and were qualified as appropriate as described in the sections below.

Comments and Exceptions

1. The data validator applied qualification to combined radium-226+228 based upon the QC samples associated with the analyses of the individual isotopes, radium-226 and radium-228. The database only includes the laboratory results for the combined radium-226+228; therefore, qualification of the individual isotopes is not addressed in this QA review.

2. Combined radium-226+228 was reported as the summation of the calculated activities for radium-226 and radium-228. As consistent with routine radiological reporting conventions, negative activities were reported for the radium-226 and radium-228 analyses. These negative activities were used in the calculation of combined radium-226+228 activity; therefore, it is possible for the combined radium-226+228 to be less than one of the individual isotopes.

3. The combined radium-226+228 sample-specific minimum detectable concentration (MDC) was reported as the higher of the MDCs for radium-226 and radium-228. Consequently, there may be instances where a detection was observed in one of the individual isotopes, but the combined radium-226+228 result was reported as "not-detected" due to the laboratory's reporting convention for combined radium-226+228.

4. The combined radium-226+228 result uncertainty was reported using the routine statistical uncertainty reporting conventions as the root sum square (RSS; the square root of the sum of the squared individual uncertainties).

5. The following field duplicate pairs (see table) were submitted and analyzed for radiological parameters with this data set. Acceptable precision and sample representativeness were demonstrated by the reported results in the field duplicate pair evaluation (the replicate error ratio [RER] < 3), with any exceptions noted below.

Laboratory SDG(s)	Sample	Field Duplicate
680-221504-2	MCM-06	DUP-1
680-221504-2	MCM-15	DUP-2

Overall Assessment of Data

Based on a review of the data, qualification of data was warranted as noted below.

Laboratory SDG	Sample(s)	Analyte(s)	Qualifier	Reason for Qualification
680-221504-2	MCM-02	combined radium-226+228	U*	BE – equipment blank contamination BF – field blank contamination
680-221504-2	MCM-11	combined radium-226+228	U*	BE – equipment blank contamination
680-221504-2	MCM-06 and PT-03	combined radium-226+228	J	BF – field blank contamination
680-221504-2	MCM-04, MCM-12, MCM-16, and PT-04D	combined radium-226+228	J	BL – lab blank contamination

- All radiological results reported below the MDC have been flagged "U."

Report prepared by: Wendy Zhou, Quality Assurance Chemist
Report reviewed by: Alyssa M. Reed, Senior Quality Assurance Chemist/Project Manager
Report approved by: David I. Thal, CEAC, CQA, Principal Chemist
Date: 11/23/2022

INORGANIC DATA QUALIFIERS

U - The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit.

U* - This analyte should be considered “not-detected” because it was detected in an associated blank at a similar level.

UJ - The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J - The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R - The data are unusable. The sample results are rejected due to serious analytical deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.

UR - The analyte was analyzed for, but was not detected above the level of the reported sample reporting or method detection; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.

Reason Codes and Explanations

Reason Code	Explanation
BE	Equipment blank contamination.
BF	Field blank contamination.
BL	Laboratory blank contamination.
BN	Negative laboratory blank contamination.
C	Initial and/or continuing calibration issue, indeterminate bias.
C+	Initial and/or continuing calibration issue. The result may be biased high.
C-	Initial and/or continuing calibration issue. The result may be biased low.
FD	Field duplicate imprecision.
FG	Total versus dissolved imprecision.
H	Holding time exceeded.
I	Internal standard recovery outside of acceptance limits.
L	LCS and LCSD recoveries outside of acceptance limits, indeterminate bias.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
LD	Laboratory duplicate imprecision.
LP	LCS/LCSD imprecision.
M	MS and MSD recoveries outside of acceptance limits, indeterminate bias.
M+	MS and/or MSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.
MP	MS/MSD imprecision.
P	Post-digestion spike recoveries outside of acceptance limits, indeterminate bias.
P+	Post-digestion spike recovery outside of acceptance limits. The result may be biased high.
P-	Post-digestion spike recovery outside of acceptance limits. The result may be biased low.
Q	Chemical preservation issue.
R	RL standards outside of acceptance limits, indeterminate bias.
R+	RL standard(s) outside of acceptance limits. The result may be biased high.
R-	RL standard(s) outside of acceptance limits. The result may be biased low.
T	Temperature preservation issue.
SD	Serial dilution imprecision.
Y	Chemical yields outside of acceptance limits, indeterminate bias.
Y+	Chemical yield(s) outside of acceptance limits. The result may be biased high.
Y-	Chemical yield(s) outside of acceptance limits. The result may be biased low.
ZZ	Other

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EQUIPMENT CALIBRATION LOG

Field Technician: Meredith Duncan	Date: 6/28/22	Time (Calibration): 0915	Time (Mid-day Check):
AquaTroll SN: 893479	Turbidity Meter Type: 7042 - 3818	SN:	
Project :	Weather Conditions: Hot 90° ~		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air cal)				103.16	
Specific Conductance (µS/cm)	21470032 04/23	31.13	4490	4362.3	
pH (4)	21470032 04/24	31.15	4	3.91	
pH (7)	21380102 04/23	30.32	7	6.80	
pH (10)	20080056 04/23	29.93	10	9.73	
ORP (mV)	21140143 04/23	29.87	228	221.3	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU	0	0.01	+/-0.5 NTU	Yes	No	
Turbidity 1 NTU	1	1.02	+/- 0.5 NTU	Yes	No	
Turbidity 10 NTU	10	9.63	+/- 0.5 NTU	Yes	No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check	31.15	4	4.23	+/- 0.1 SU	Yes	No	
Mid-Day pH (7) check	31.03	7	7.28	+/- 0.1 SU	Yes	No	
Mid-Day pH (10) check	31.15	10	10.26	+/- 0.1 SU	Yes	No	

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EQUIPMENT CALIBRATION LOG

Field Technician: Robert Mull	Date: 6/28/22	Time (Calibration): 1330	Time (Mid-day Check): 1624
AquaTroll SN: 789310	Turbidity Meter Type: LaMotte 2020we	SN:	
Project: McManus	Weather Conditions: Sunny, 93°F		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air cal)				105.1%	
Specific Conductance (µS/cm)	21070193 8/22	33.59	4490	4813.7	
pH (4)	21070193 8/22	33.91	4	4.03	
pH (7)	21010066 8/22	35.21	7	7.05	
pH (10)	21080189 6/22	35.91	10	10.01	
ORP (mV)	21140141 8/22	36.07	228	248.7	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU	0	0.14	+/-0.5 NTU	(Yes)	No	
Turbidity 1 NTU	1	1.10	+/- 0.5 NTU	(Yes)	No	
Turbidity 10 NTU	10	9.66	+/- 0.5 NTU	(Yes)	No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check	33.61	4	4.25	+/- 0.1 SU	Yes	No	
Mid-Day pH (7) check	33.34	7	7.25	+/- 0.1 SU	Yes	No	
Mid-Day pH (10) check	36.73	10	10.24	+/- 0.1 SU	Yes	No	

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EQUIPMENT CALIBRATION LOG

Field Technician: William Laaker	Date: 6/28/22	Time (Calibration): 13:42	Time (Mid-day Check):
AquaTroll SN: 789301	Turbidity Meter Type: LaMotte 2020	SN: 4429-4417	
Project: June 2022 Sampling	Weather Conditions: 89°/76° sunny		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air cal)				114.16	
Specific Conductance (µS/cm)	21070193 8/22	34.78	4490	4440.8	
pH (4)	21070193 8/22	34.54	4	4.04	
pH (7)	21010066 8/22	33.24	7	6.98	
pH (10)	21080189 6/22	33.06	10	10.25	
ORP (mV)	21140141 8/22	32.74	228	218.1	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU	0	0.00	+/-0.5 NTU	Yes	No	
Turbidity 1 NTU	1	0.91	+/- 0.5 NTU	Yes	No	
Turbidity 10 NTU	10	9.67	+/- 0.5 NTU	Yes	No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check	31.87	4	4.10	+/- 0.1 SU	Yes	No	
Mid-Day pH (7) check	31.96	7	7.15	+/- 0.1 SU	Yes	No	
Mid-Day pH (10) check	32.11	10	10.12	+/- 0.1 SU	Yes	No	

Resolute
Environmental & Water Resources Consulting

EQUIPMENT CALIBRATION LOG

Field Technician: Meredith Duncan	Date: 6/29/22	Time (Calibration): 0825	Time (Mid-day Check): 1050
AquaTroll SN: 893479	Turbidity Meter Type: la motte	SN: 7042 - 3818	
Project:	Weather Conditions:		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt. 100% water saturated air cal)				99.97	
Specific Conductance (µS/cm)	21470032 04/23	28.39	4490	4432.9	
pH (4)	21470032 04/24	28.95	4	3.82	
pH (7)	21380102 04/23	28.72	7	6.72	
pH (10)	20080056 04/23	27.63	10	9.67	
ORP (mV)	21140143 04/23	27.67	228	226.5	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU	0	0.00	+/-0.5 NTU	Yes	No	
Turbidity 1 NTU	1	1.12	+/- 0.5 NTU	Yes	No	
Turbidity 10 NTU	10	10.38	+/- 0.5 NTU	Yes	No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check	30.73	4	4.18	+/- 0.1 SU	Yes	No	
Mid-Day pH (7) check	30.70	7	7.25	+/- 0.1 SU	Yes	No	
Mid-Day pH (10) check	31.64	10	10.17	+/- 0.1 SU	Yes	No	

Low-Flow Test Report:

Test Date / Time: 6/28/2022 11:16:08 AM
Project: June 2022 Remedy Well Sampling
Operator Name: Meredith Duncan

Location Name: DPZ-02 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 5 ft** **Top of Screen: 30.5 ft** **Total Depth: 40.5 ft** **Initial Depth to Water: 6.86 ft**	**Pump Type: GeoTech Peristaltic** **Tubing Type: LDPE** **Pump Intake From TOC: 35.5 ft** **Estimated Total Volume Pumped: 2880 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 180 ml/min** **Final Draw Down: 0.09 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 893479**

Test Notes:
Prepurge 5L
Sulfur smell

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
6/28/2022 11:16 AM	00:00	7.16 pH	24.83 °C	22,039 µS/cm	0.16 mg/L	3.33 NTU	-206.4 mV	6.86 ft	180.00 ml/min
6/28/2022 11:20 AM	04:00	7.10 pH	24.88 °C	22,363 µS/cm	0.13 mg/L	1.09 NTU	-198.6 mV	6.89 ft	180.00 ml/min
6/28/2022 11:24 AM	08:00	7.09 pH	24.79 °C	22,419 µS/cm	0.12 mg/L	0.81 NTU	-196.8 mV	6.90 ft	180.00 ml/min
6/28/2022 11:28 AM	12:00	7.08 pH	24.75 °C	22,775 µS/cm	0.12 mg/L	1.15 NTU	-195.0 mV	6.93 ft	180.00 ml/min
6/28/2022 11:32 AM	16:00	7.09 pH	24.98 °C	23,014 µS/cm	0.11 mg/L	1.02 NTU	-193.8 mV	6.95 ft	180.00 ml/min

Samples

Sample ID:	Description:
DPZ-02	Total Metals, Diss. Metals, TDS, Inorganics, Alkalinity, Sulfide

Low-Flow Test Report:

Test Date / Time: 6/28/2022 1:50:38 PM
Project: June 2022 Remedy Well Sampling
Operator Name: Meredith Duncan

Location Name: PT-04D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 30.85 ft** **Total Depth: 40.85 ft** **Initial Depth to Water: 5.75 ft**	**Pump Type: GeoTech Peristaltic** **Tubing Type: LDPE** **Pump Intake From TOC: 35.85 ft** **Estimated Total Volume Pumped: 3200 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.08 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 893479**

Test Notes:
Prepurge 3L

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
6/28/2022 1:50 PM	00:00	7.28 pH	25.21 °C	20,456 µS/cm	0.18 mg/L	1.39 NTU	-195.1 mV	5.75 ft	200.00 ml/min
6/28/2022 1:54 PM	04:00	7.25 pH	24.82 °C	20,602 µS/cm	0.14 mg/L	1.08 NTU	-189.1 mV	5.79 ft	200.00 ml/min
6/28/2022 1:58 PM	08:00	7.24 pH	24.76 °C	20,565 µS/cm	0.12 mg/L	0.78 NTU	-189.3 mV	5.80 ft	200.00 ml/min
6/28/2022 2:02 PM	12:00	7.24 pH	24.61 °C	20,506 µS/cm	0.11 mg/L	0.92 NTU	-188.8 mV	5.81 ft	200.00 ml/min
6/28/2022 2:06 PM	16:00	7.23 pH	24.53 °C	20,551 µS/cm	0.10 mg/L	0.88 NTU	-188.4 mV	5.83 ft	200.00 ml/min

Samples

Sample ID:	Description:
PT-04D	Total Metals, Diss. Metals, TDS, Inorganics, Alkalinity, Sulfide

Low-Flow Test Report:

Test Date / Time: 6/28/2022 2:26:22 PM
Project: June 2022 Remedy Well Sampling
Operator Name: Robert Mull

Location Name: PT-03 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 15.36 ft** **Total Depth: 25.36 ft** **Initial Depth to Water: 5.45 ft**	**Pump Type: Peristaltic** **Tubing Type: LDPE** **Pump Intake From TOC: 20.36 ft** **Estimated Total Volume Pumped: 3133.333 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.14 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 789310**

Test Notes:
Prepurged 1L

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	
6/28/2022 2:26 PM	00:00	6.77 pH	27.39 °C	5,377.8 µS/cm	0.51 mg/L	9.17 NTU	11.8 mV	5.53 ft	200.00 ml/min
6/28/2022 2:26 PM	00:26	6.78 pH	27.00 °C	5,462.4 µS/cm	0.49 mg/L	9.17 NTU	5.1 mV	5.53 ft	200.00 ml/min
6/28/2022 2:30 PM	03:40	6.81 pH	26.13 °C	5,502.2 µS/cm	0.25 mg/L	3.42 NTU	-32.2 mV	5.56 ft	200.00 ml/min
6/28/2022 2:34 PM	07:40	6.83 pH	25.81 °C	5,513.9 µS/cm	0.16 mg/L	2.48 NTU	-54.6 mV	5.57 ft	200.00 ml/min
6/28/2022 2:38 PM	11:40	6.84 pH	25.54 °C	5,529.5 µS/cm	0.11 mg/L	2.34 NTU	-65.1 mV	5.58 ft	200.00 ml/min
6/28/2022 2:42 PM	15:40	6.85 pH	25.45 °C	5,531.9 µS/cm	0.09 mg/L	1.94 NTU	-70.6 mV	5.59 ft	200.00 ml/min

Samples

Sample ID:	Description:
PT-03	Total metals, diss metals, tds, inorganics, Alkalinity, sulfide
DUP-1	Total metals, diss metals, tds, inorganics, Alkalinity, sulfide

Low-Flow Test Report:

Test Date / Time: 6/28/2022 2:31:49 PM
Project: June 2022 Remedy Well Sampling
Operator Name: William Laaker

Location Name: DR-01 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 15.58 ft** **Total Depth: 30.58 ft** **Initial Depth to Water: 5.6 ft**	**Pump Type: GeoTech Peristaltic** **Tubing Type: LDPE** **Pump Intake From TOC: 23.08 ft** **Estimated Total Volume Pumped: 2400 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 150 ml/min** **Final Draw Down: 0.08 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 789301**

Test Notes:
Prepurged 1 L

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
6/28/2022 2:31 PM	00:00	7.00 pH	27.10 °C	10,413 µS/cm	0.16 mg/L	3.28 NTU	-102.8 mV	5.63 ft	5.97 PSU	150.00 ml/min
6/28/2022 2:35 PM	04:00	7.02 pH	26.88 °C	10,477 µS/cm	0.12 mg/L	3.22 NTU	-105.7 mV	5.64 ft	6.01 PSU	150.00 ml/min
6/28/2022 2:39 PM	08:00	7.06 pH	26.69 °C	10,550 µS/cm	0.10 mg/L	3.29 NTU	-109.2 mV	5.66 ft	6.05 PSU	150.00 ml/min
6/28/2022 2:43 PM	12:00	7.07 pH	26.60 °C	10,643 µS/cm	0.09 mg/L	2.10 NTU	-111.7 mV	5.67 ft	6.11 PSU	150.00 ml/min
6/28/2022 2:47 PM	16:00	7.08 pH	26.41 °C	10,637 µS/cm	0.08 mg/L	1.82 NTU	-112.8 mV	5.68 ft	6.11 PSU	150.00 ml/min

Samples

Sample ID:	Description:
DR-01	Total metals, Diss. Metals, Inorganics, TDS, Alkalinity, Sulfide

Low-Flow Test Report:

Test Date / Time: 6/28/2022 3:12:59 PM
Project: June 2022 Remedy Well Sampling
Operator Name: Meredith Duncan

Location Name: PT-01 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 14.38 ft** **Total Depth: 24.38 ft** **Initial Depth to Water: 5.86 ft**	**Pump Type: GeoTech Peristaltic** **Tubing Type: LDPE** **Pump Intake From TOC: 19.38 ft** **Estimated Total Volume Pumped: 7040 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 220 ml/min** **Final Draw Down: 0.07 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 893479**

Test Notes:
Prepurge 3L

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
6/28/2022 3:12 PM	00:00	7.27 pH	25.15 °C	8,760.8 µS/cm	0.07 mg/L	2.65 NTU	-208.9 mV	5.86 ft	220.00 ml/min
6/28/2022 3:16 PM	04:00	7.25 pH	24.99 °C	8,906.1 µS/cm	0.05 mg/L	2.50 NTU	-198.2 mV	5.87 ft	220.00 ml/min
6/28/2022 3:20 PM	08:00	7.23 pH	24.98 °C	8,998.2 µS/cm	0.04 mg/L	3.15 NTU	-196.7 mV	5.88 ft	220.00 ml/min
6/28/2022 3:24 PM	12:00	7.23 pH	24.93 °C	9,728.6 µS/cm	0.03 mg/L	3.38 NTU	-195.5 mV	5.89 ft	220.00 ml/min
6/28/2022 3:28 PM	16:00	7.24 pH	24.89 °C	10,609 µS/cm	0.03 mg/L	3.05 NTU	-199.4 mV	5.90 ft	220.00 ml/min
6/28/2022 3:32 PM	20:00	7.25 pH	24.90 °C	10,737 µS/cm	0.03 mg/L	2.77 NTU	-200.2 mV	5.91 ft	220.00 ml/min
6/28/2022 3:36 PM	24:00	7.25 pH	24.88 °C	10,798 µS/cm	0.03 mg/L	2.76 NTU	-199.9 mV	5.91 ft	220.00 ml/min
6/28/2022 3:40 PM	28:00	7.24 pH	24.95 °C	10,793 µS/cm	0.02 mg/L	2.64 NTU	-200.3 mV	5.92 ft	220.00 ml/min
6/28/2022 3:44 PM	32:00	7.24 pH	24.93 °C	10,851 µS/cm	0.02 mg/L	2.58 NTU	-200.6 mV	5.93 ft	220.00 ml/min

Samples

Sample ID:	**Description:** T
PT-01	Total Metals, Diss. Metals, TDS, Inorganics, Alkalinity, Sulfide

Low-Flow Test Report:

Test Date / Time: 6/28/2022 3:29:12 PM
Project: June 2022 Remedy Well Sampling
Operator Name: William Laaker

Location Name: MCM-06 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 17.2 ft** **Total Depth: 27.2 ft** **Initial Depth to Water: 8.27 ft**	**Pump Type: GeoTech Peristaltic** **Tubing Type: LDPE** **Pump Intake From TOC: 22.2 ft** **Estimated Total Volume Pumped: 4680 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 150 ml/min** **Final Draw Down: 0.13 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 789301**

Test Notes:
Prepurged 1 L

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
6/28/2022 3:29 PM	00:00	7.12 pH	27.28 °C	8,564.8 µS/cm	0.09 mg/L	9.73 NTU	-115.2 mV	8.38 ft	4.84 PSU	190.00 ml/min
6/28/2022 3:33 PM	04:00	7.16 pH	26.94 °C	8,219.1 µS/cm	0.06 mg/L	10.13 NTU	-111.4 mV	8.38 ft	4.63 PSU	190.00 ml/min
6/28/2022 3:37 PM	08:00	7.16 pH	27.24 °C	8,615.8 µS/cm	0.05 mg/L	10.39 NTU	-114.6 mV	8.38 ft	4.87 PSU	190.00 ml/min
6/28/2022 3:41 PM	12:00	7.23 pH	27.58 °C	9,573.9 µS/cm	0.04 mg/L	5.39 NTU	-120.0 mV	8.38 ft	5.45 PSU	150.00 ml/min
6/28/2022 3:45 PM	16:00	7.26 pH	27.51 °C	9,859.4 µS/cm	0.05 mg/L	3.19 NTU	-125.1 mV	8.38 ft	5.63 PSU	150.00 ml/min
6/28/2022 3:49 PM	20:00	7.28 pH	27.52 °C	9,897.3 µS/cm	0.04 mg/L	3.23 NTU	-127.9 mV	8.39 ft	5.65 PSU	150.00 ml/min
6/28/2022 3:53 PM	24:00	7.28 pH	27.42 °C	9,911.5 µS/cm	0.04 mg/L	2.00 NTU	-129.6 mV	8.39 ft	5.66 PSU	150.00 ml/min
6/28/2022 3:57 PM	28:00	7.28 pH	27.42 °C	9,973.0 µS/cm	0.04 mg/L	1.70 NTU	-129.8 mV	8.40 ft	5.70 PSU	150.00 ml/min

Samples

Sample ID:	Description:
MCM-06	Total metals, Diss. Metals, Inorganics, TDS, Alkalinity, Sulfide

Low-Flow Test Report:

Test Date / Time: 6/28/2022 3:36:58 PM
Project: June 2022 Remedy Well Sampling
Operator Name: Robert Mull

Location Name: DR-02 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 15.03 ft** **Total Depth: 30.03 ft** **Initial Depth to Water: 5.68 ft**	**Pump Type: Peristaltic** **Tubing Type: LDPE** **Pump Intake From TOC: 22.53 ft** **Estimated Total Volume Pumped: 4500 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 225 ml/min** **Final Draw Down: 0.07 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 789310**

Test Notes:
Prepurged 2L

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	
6/28/2022 3:36 PM	00:00	7.58 pH	25.56 °C	9,700.7 µS/cm	0.11 mg/L	2.05 NTU	-151.7 mV	5.71 ft	225.00 ml/min
6/28/2022 3:40 PM	04:00	7.64 pH	25.04 °C	10,002 µS/cm	0.08 mg/L	1.72 NTU	-156.2 mV	5.73 ft	225.00 ml/min
6/28/2022 3:44 PM	08:00	7.64 pH	24.68 °C	9,988.0 µS/cm	0.06 mg/L	1.82 NTU	-158.5 mV	5.73 ft	225.00 ml/min
6/28/2022 3:48 PM	12:00	7.61 pH	24.54 °C	9,962.2 µS/cm	0.05 mg/L	1.84 NTU	-163.4 mV	5.74 ft	225.00 ml/min
6/28/2022 3:52 PM	16:00	7.62 pH	24.39 °C	10,169 µS/cm	0.05 mg/L	1.82 NTU	-164.5 mV	5.75 ft	225.00 ml/min
6/28/2022 3:56 PM	20:00	7.68 pH	24.34 °C	10,475 µS/cm	0.04 mg/L	1.66 NTU	-167.9 mV	5.75 ft	225.00 ml/min

Samples

Sample ID:	Description:
DR-02	Total metals, diss metals, TDS, Inorganics, alkalinity, sulfide

Low-Flow Test Report:

Test Date / Time: 6/29/2022 9:20:19 AM
Project: June 2022 Remedy Well Sampling
Operator Name: Meredith Duncan

Location Name: PT-02 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 14.38 ft** **Total Depth: 24.38 ft** **Initial Depth to Water: 4.6 ft**	**Pump Type: GeoTech Peristaltic** **Tubing Type: LDPE** **Pump Intake From TOC: 19.38 ft** **Estimated Total Volume Pumped: 6400 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: -0.13 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 893479**

Test Notes:
Prepurge 1L

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
6/29/2022 9:20 AM	00:00	7.22 pH	25.95 °C	6,632.8 µS/cm	0.21 mg/L	6.29 NTU	-164.1 mV	4.60 ft	200.00 ml/min
6/29/2022 9:24 AM	04:00	7.23 pH	25.37 °C	6,697.2 µS/cm	0.14 mg/L	5.28 NTU	-159.0 mV	4.57 ft	200.00 ml/min
6/29/2022 9:28 AM	08:00	7.24 pH	25.20 °C	6,733.8 µS/cm	0.11 mg/L	3.37 NTU	-157.9 mV	4.55 ft	200.00 ml/min
6/29/2022 9:32 AM	12:00	7.31 pH	25.06 °C	8,400.8 µS/cm	0.09 mg/L	2.97 NTU	-171.3 mV	4.54 ft	200.00 ml/min
6/29/2022 9:36 AM	16:00	7.33 pH	25.06 °C	8,927.2 µS/cm	0.08 mg/L	2.48 NTU	-177.9 mV	4.52 ft	200.00 ml/min
6/29/2022 9:40 AM	20:00	7.34 pH	24.82 °C	8,930.2 µS/cm	0.08 mg/L	2.15 NTU	-178.1 mV	4.51 ft	200.00 ml/min
6/29/2022 9:44 AM	24:00	7.34 pH	24.98 °C	8,917.7 µS/cm	0.07 mg/L	1.93 NTU	-179.1 mV	4.50 ft	200.00 ml/min
6/29/2022 9:48 AM	28:00	7.34 pH	25.05 °C	8,892.2 µS/cm	0.07 mg/L	1.55 NTU	-179.8 mV	4.48 ft	200.00 ml/min
6/29/2022 9:52 AM	32:00	7.34 pH	24.96 °C	8,848.0 µS/cm	0.07 mg/L	2.05 NTU	-179.8 mV	4.47 ft	200.00 ml/min

Samples

Sample ID:	Description: T
PT-02	Total Metals, Diss. Metals, TDS, Inorganics, Alkalinity, Sulfide

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EQUIPMENT CALIBRATION LOG

Field Technician: Kevin Stephenson	Date: 9/20/22	Time (Calibration): 1014	Time (Mid-day Check): 1648
AquaTroll SN: 789317	Turbidity Meter Type: LaMotte 2020	SN: 2068-0320	
Project: 2022 Sept. Semi-annual Sampling	Weather Conditions: 90°/68°, 30%		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air cal)				86.43%	
Specific Conductance (µS/cm)	21470032 04/23	25.72	4490	4,504.3	
pH (4)	21470032 04/23	26.14	4	4.13	
pH (7)	21380102 04/23	26.32	7	7.01	
pH (10)	20080056 04/23	26.36	10	9.94	
ORP (mV)	21140143 04/23	26.41	228	233.8	

		Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU		0	0.03	+/-0.5 NTU	(Yes)	No	
Turbidity 1 NTU		1	1.14	+/- 0.5 NTU	(Yes)	No	
Turbidity 10 NTU		10	9.81	+/- 0.5 NTU	(Yes)	No	

		Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check		28.81	4	4.23	+/- 0.1 SU	(Yes)	No	
Mid-Day pH (7) check		28.81	7	7.11	+/- 0.1 SU	(Yes)	No	
Mid-Day pH (10) check		29.02	10	10.08	+/- 0.1 SU	Yes	(No)	

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EQUIPMENT CALIBRATION LOG

Field Technician: William Laaker	Date: 9/20/22	Time (Calibration): 8:00	Time (Mid-day Check): 17:30
AquaTroll SN: 789301	Turbidity Meter Type: LaMotte 2020	SN: 9453-4417	
Project: Sept. 2022 CCR Sampling	Weather Conditions: 89°/70° fog, sunny		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air cal)				99.42	
Specific Conductance (µS/cm)	21470032 04/23	24.20	4490	4482.4	
pH (4)	21470032 04/23	24.51	4	4.05	
pH (7)	21380102 04/23	24.47	7	7.05	
pH (10)	20080056 04/23	25.30	10	10.03	
ORP (mV)	21140143 04/23	24.83	228	218.9	

		Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU		0	0.00	+/-0.5 NTU	Yes	No	
Turbidity 1 NTU		1	0.97	+/- 0.5 NTU	Yes	No	
Turbidity 10 NTU		10	9.88	+/- 0.5 NTU	Yes	No	

		Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check		38.17	4	4.09	+/- 0.1 SU	Yes	No	
Mid-Day pH (7) check		38.12	7	7.11	+/- 0.1 SU	Yes	No	
Mid-Day pH (10) check		38.34	10	10.08	+/- 0.1 SU	Yes	No	

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EQUIPMENT CALIBRATION LOG

Field Technician: Meredith Duncan	Date: 9/20/22	Time (Calibration): 0745	Time (Mid-day Check): 1730
AquaTroll SN: 893479	Turbidity Meter Type: la Motte	SN: 9429 - 4417	
Project: McManus GW	Weather Conditions: 75° foggy		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air cal)				100.85	
Specific Conductance (µS/cm)	21470032 04/23	23.82	4490	4494.3	
pH (4)	21470032 04/23	23.92	4	4.04	
pH (7)	21380102 04/23	24.07	7	7.03	
pH (10)	20080056 04/23	24.12	10	10.10	
ORP (mV)	21140143 04/23	24.10	228	225.6	

		Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU		0	0.00	+/-0.5 NTU	Yes	No	
Turbidity 1 NTU		1	1.06	+/- 0.5 NTU	Yes	No	
Turbidity 10 NTU		10	9.64	+/- 0.5 NTU	Yes	No	

		Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check		30.64	4	4.22	+/- 0.1 SU	Yes	No	
Mid-Day pH (7) check		30.89	7	7.25	+/- 0.1 SU	Yes	No	
Mid-Day pH (10) check		31.73	10	10.19	+/- 0.1 SU	Yes	No	

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EQUIPMENT CALIBRATION LOG

Field Technician: Kevin Stephenson	Date: 9/21/22	Time (Calibration): 1010	Time (Mid-day Check):
AquaTroll SN: 789317	Turbidity Meter Type: LaMotte 2020	SN: 2068-0320	
Project: 2022 Sept. Semi-annual Sampling	Weather Conditions: 90°/70°, 30%		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air cal)	[redacted]			111.7490	
Specific Conductance (µS/cm)	21470032 04/23	24.80	4490	4402.7	
pH (4)	21470032 04/23	24.82	4	3.95	
pH (7)	21380102 04/23	24.95	7	7.02	
pH (10)	20080056 04/23	27.38	10	10.14	
ORP (mV)	21140143 04/23	26.44	228	227.4	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU [redacted]	0	0.00	+/-0.5 NTU	(Yes)	No	
Turbidity 1 NTU [redacted]	1	1.05	+/-0.5 NTU	(Yes)	No	
Turbidity 10 NTU [redacted]	10	9.91	+/-0.5 NTU	(Yes)	No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check [redacted]	28.74	4	4.22	+/-0.1 SU	Yes	(No)	
Mid-Day pH (7) check [redacted]	29.21	7	7.22	+/-0.1 SU	Yes	(No)	
Mid-Day pH (10) check [redacted]	29.17	10	9.99	+/-0.1 SU	Yes	(No)	

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EQUIPMENT CALIBRATION LOG

Field Technician: Meredith Duncan	Date: 9/21/22	Time (Calibration): 0905	Time (Mid-day Check): 1900
AquaTroll SN: 893478	Turbidity Meter Type: La motte	SN: 9429-4417	
Project: McManus	Weather Conditions: 80°		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air cal)				99.41	
Specific Conductance (µS/cm)	21470032 04/23	24.97	4490	4510.1	
pH (4)	21470032 04/23	25.10	4	3.80	
pH (7)	21380102 04/23	24.72	7	6.70	
pH (10)	20080056 04/23	24.79	10	9.72	
ORP (mV)	21140143 04/23	24.95	228	229.8	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU	0	0.03	+/-0.5 NTU	Yes	No	
Turbidity 1 NTU	1	0.89	+/- 0.5 NTU	Yes	No	
Turbidity 10 NTU	10	9.62	+/- 0.5 NTU	Yes	No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check	29.46	4	4.21	+/- 0.1 SU	Yes	No	
Mid-Day pH (7) check	29.11	7	7.27	+/- 0.1 SU	Yes	No	
Mid-Day pH (10) check	28.65	10	10.28	+/- 0.1 SU	Yes	No	

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EQUIPMENT CALIBRATION LOG

Field Technician: William Laaker	Date: 9/21/22	Time (Calibration): 6:45	Time (Mid-day Check): 17:15
AquaTroll SN: 789301	Turbidity Meter Type: LaMotte 2020	SN: 9453-4417	
Project: Sept. 2022 ~~Surface Water~~ CCR Sampling	Weather Conditions: 89°/66° sunny		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air cal)				101.03	
Specific Conductance (µS/cm)	21470032 04/23	23.46	4490	4468.7	
pH (4)	21470032 04/23	23.16	4	4.07	
pH (7)	21380102 04/23	23.17	7	7.10	
pH (10)	20080056 04/23	23.25	10	10.10	
ORP (mV)	21140143 04/23	23.31	228	222.8	

		Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU		0	0.01	+/-0.5 NTU	Yes	No	
Turbidity 1 NTU		1	0.82	+/- 0.5 NTU	Yes	No	
Turbidity 10 NTU		10	9.65	+/- 0.5 NTU	Yes	No	

		Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check		28.93	4	4.14	+/- 0.1 SU	Yes	No	
Mid-Day pH (7) check		29.14	7	7.15	+/- 0.1 SU	Yes	No	
Mid-Day pH (10) check		29.67	10	10.17	+/- 0.1 SU	Yes	No	

Low-Flow Test Report:

Test Date / Time: 9/20/2022 9:40:09 AM
Project: September 2022 McManus CCR Event
Operator Name: Meredith Duncan

Location Name: PT-01 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 14.38 ft** **Total Depth: 24.38 ft** **Initial Depth to Water: 4.98 ft**	**Pump Type: GeoTech Peristaltic** **Tubing Type: PVC** **Pump Intake From TOC: 19.38 ft** **Estimated Total Volume Pumped: 3360 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 140 ml/min** **Final Draw Down: 0.09 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 893479**

Test Notes:
Prepurge 2L

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
9/20/2022 9:40 AM	00:00	7.03 pH	26.06 °C	6,810.7 µS/cm	0.14 mg/L	3.04 NTU	-187.0 mV	4.98 ft	140.00 ml/min
9/20/2022 9:44 AM	04:00	7.05 pH	25.54 °C	7,074.3 µS/cm	0.10 mg/L	3.77 NTU	-191.7 mV	5.01 ft	140.00 ml/min
9/20/2022 9:48 AM	08:00	7.09 pH	25.20 °C	7,894.9 µS/cm	0.07 mg/L	2.08 NTU	-193.9 mV	5.05 ft	140.00 ml/min
9/20/2022 9:52 AM	12:00	7.10 pH	25.88 °C	8,200.5 µS/cm	0.07 mg/L	1.33 NTU	-196.6 mV	5.04 ft	140.00 ml/min
9/20/2022 9:56 AM	16:00	7.11 pH	25.97 °C	8,271.2 µS/cm	0.07 mg/L	1.37 NTU	-196.7 mV	5.05 ft	140.00 ml/min
9/20/2022 10:00 AM	20:00	7.11 pH	25.98 °C	8,153.4 µS/cm	0.05 mg/L	1.19 NTU	-196.8 mV	5.05 ft	140.00 ml/min
9/20/2022 10:04 AM	24:00	7.12 pH	25.87 °C	8,272.4 µS/cm	0.04 mg/L	0.98 NTU	-196.3 mV	5.07 ft	140.00 ml/min

Samples

Sample ID:	Description:
PT-01	Metals, Inorganics, TDS, Sulfide, Dis. Fe, Radium, As. Spec

Low-Flow Test Report:

Test Date / Time: 9/20/2022 9:46:10 AM
Project: September 2022 McManus CCR Event
Operator Name: William Laaker

Location Name: MCM-06 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 17.2 ft** **Total Depth: 27.2 ft** **Initial Depth to Water: 7.34 ft**	**Pump Type: QED Dedicated** **Tubing Type: LDPE** **Pump Intake From TOC: 22.2 ft** **Estimated Total Volume Pumped: 4800 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.3 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 789301**

Test Notes:
Prepurged 2 L

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
9/20/2022 9:46 AM	00:00	7.30 pH	25.60 °C	6,946.6 µS/cm	0.02 mg/L	5.24 NTU	-80.1 mV	7.53 ft	3.87 PSU	200.00 ml/min
9/20/2022 9:50 AM	04:00	7.33 pH	25.51 °C	6,999.2 µS/cm	0.01 mg/L	4.50 NTU	-62.1 mV	7.56 ft	3.90 PSU	200.00 ml/min
9/20/2022 9:54 AM	08:00	7.28 pH	25.46 °C	7,055.6 µS/cm	0.00 mg/L	3.72 NTU	-60.7 mV	7.58 ft	3.93 PSU	200.00 ml/min
9/20/2022 9:58 AM	12:00	7.29 pH	25.42 °C	7,101.4 µS/cm	0.00 mg/L	2.80 NTU	-60.4 mV	7.60 ft	3.96 PSU	200.00 ml/min
9/20/2022 10:02 AM	16:00	7.30 pH	25.42 °C	7,134.9 µS/cm	0.00 mg/L	1.97 NTU	-59.8 mV	7.62 ft	3.98 PSU	200.00 ml/min
9/20/2022 10:06 AM	20:00	7.30 pH	25.43 °C	7,157.4 µS/cm	0.00 mg/L	1.91 NTU	-58.4 mV	7.63 ft	3.99 PSU	200.00 ml/min
9/20/2022 10:10 AM	24:00	7.29 pH	25.37 °C	7,166.0 µS/cm	0.00 mg/L	1.82 NTU	-58.8 mV	7.64 ft	4.00 PSU	200.00 ml/min

Samples

Sample ID:	Description:
MCM-06	Metals, Inorganics, TDS, Alkalinity, Sulfide, Dis. Fe, Radium, As Spec
DUP-1	Metals, Inorganics, TDS, Alkalinity, Radium

Low-Flow Test Report:

Test Date / Time: 9/20/2022 10:40:14 AM
Project: September 2022 McManus CCR Event
Operator Name: Kevin Stephenson

Location Name: MCM-20 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 13.05 ft** **Total Depth: 23.05 ft** **Initial Depth to Water: 7.71 ft**	**Pump Type: GeoTech Peristaltic** **Tubing Type: LDPE** **Pump Intake From TOC: 18.05 ft** **Estimated Total Volume Pumped: 4800 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 240 ml/min** **Final Draw Down: 0.63 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 789317**

Test Notes:
Pre-purged 1 liter

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
9/20/2022 10:40 AM	00:00	3.67 pH	24.98 °C	15,711 µS/cm	0.28 mg/L	1.47 NTU	155.4 mV	8.28 ft	9.31 PSU	240.00 ml/min
9/20/2022 10:44 AM	04:00	3.64 pH	24.50 °C	16,634 µS/cm	0.18 mg/L	1.41 NTU	124.9 mV	8.29 ft	9.90 PSU	240.00 ml/min
9/20/2022 10:48 AM	08:00	3.64 pH	24.41 °C	16,549 µS/cm	0.15 mg/L	1.10 NTU	115.2 mV	8.31 ft	9.85 PSU	240.00 ml/min
9/20/2022 10:52 AM	12:00	3.63 pH	24.38 °C	16,551 µS/cm	0.12 mg/L	0.21 NTU	112.6 mV	8.32 ft	9.85 PSU	240.00 ml/min
9/20/2022 10:56 AM	16:00	3.62 pH	24.43 °C	16,580 µS/cm	0.11 mg/L	0.15 NTU	113.6 mV	8.33 ft	9.87 PSU	240.00 ml/min
9/20/2022 11:00 AM	20:00	3.63 pH	24.50 °C	16,565 µS/cm	0.10 mg/L	0.13 NTU	116.4 mV	8.34 ft	9.86 PSU	240.00 ml/min

Samples

Sample ID:	Description:
MCM-20	Metals, Inorganics, TDS, Alkalinity, Sulfide, Dis. Fe, Radium, As Speciation

Low-Flow Test Report:

Test Date / Time: 9/20/2022 11:38:12 AM
Project: September 2022 McManus CCR Event
Operator Name: Meredith Duncan

Location Name: DPZ-02 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 33.46 ft** **Total Depth: 43.46 ft** **Initial Depth to Water: 7.43 ft**	**Pump Type: GeoTech Peristaltic** **Tubing Type: PVC** **Pump Intake From TOC: 38.46 ft** **Estimated Total Volume Pumped: 3840 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 160 ml/min** **Final Draw Down: 0.03 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 893479**

Test Notes:
Prepurge 2L

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
9/20/2022 11:38 AM	00:00	7.11 pH	26.44 °C	21,351 µS/cm	0.26 mg/L	0.64 NTU	-210.8 mV	7.43 ft	160.00 ml/min
9/20/2022 11:42 AM	04:00	7.09 pH	26.11 °C	21,540 µS/cm	0.19 mg/L	0.54 NTU	-205.1 mV	7.40 ft	160.00 ml/min
9/20/2022 11:46 AM	08:00	7.08 pH	25.88 °C	21,837 µS/cm	0.16 mg/L	0.82 NTU	-202.7 mV	7.42 ft	160.00 ml/min
9/20/2022 11:50 AM	12:00	7.08 pH	25.74 °C	22,109 µS/cm	0.14 mg/L	0.31 NTU	-201.5 mV	7.43 ft	160.00 ml/min
9/20/2022 11:54 AM	16:00	7.07 pH	25.74 °C	22,338 µS/cm	0.13 mg/L	0.40 NTU	-200.7 mV	7.44 ft	160.00 ml/min
9/20/2022 11:58 AM	20:00	7.07 pH	25.74 °C	22,244 µS/cm	0.11 mg/L	0.20 NTU	-198.7 mV	7.45 ft	160.00 ml/min
9/20/2022 12:02 PM	24:00	7.07 pH	25.52 °C	22,255 µS/cm	0.11 mg/L	0.40 NTU	-197.0 mV	7.46 ft	160.00 ml/min

Samples

Sample ID:	Description:
DPZ-02	Metals, Inorganics, TDS, Alkalinity, Sulfide, Dis. Fe, Radium, As. Spec

Low-Flow Test Report:

Test Date / Time: 9/20/2022 2:04:20 PM
Project: September 2022 McManus CCR Event
Operator Name: Kevin Stephenson

Location Name: MCM-18 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 17.86 ft** **Total Depth: 27.86 ft** **Initial Depth to Water: 5.34 ft**	**Pump Type: GeoTech Peristaltic** **Tubing Type: LDPE** **Pump Intake From TOC: 22.86 ft** **Estimated Total Volume Pumped: 3200 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.23 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 789317**

Test Notes:
Pre-purged 1 liter

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
9/20/2022 2:04 PM	00:00	4.56 pH	27.93 °C	4,045.8 µS/cm	0.23 mg/L	0.03 NTU	147.6 mV	5.57 ft	2.17 PSU	200.00 ml/min
9/20/2022 2:08 PM	04:00	4.50 pH	26.87 °C	3,959.6 µS/cm	0.16 mg/L	0.23 NTU	139.9 mV	5.57 ft	2.12 PSU	200.00 ml/min
9/20/2022 2:12 PM	08:00	4.51 pH	25.86 °C	3,919.7 µS/cm	0.14 mg/L	0.24 NTU	132.8 mV	5.57 ft	2.10 PSU	200.00 ml/min
9/20/2022 2:16 PM	12:00	4.50 pH	24.83 °C	3,939.0 µS/cm	0.13 mg/L	0.21 NTU	124.8 mV	5.57 ft	2.11 PSU	200.00 ml/min
9/20/2022 2:20 PM	16:00	4.47 pH	25.55 °C	3,924.5 µS/cm	0.11 mg/L	0.22 NTU	125.2 mV	5.57 ft	2.10 PSU	200.00 ml/min

Samples

Sample ID:	Description:
MCM-18	Metals, Inorganics, TDS, Alkalinity, Radium

Low-Flow Test Report:

Test Date / Time: 9/20/2022 2:08:25 PM
Project: September 2022 McManus CCR Event
Operator Name: William Laaker

Location Name: DR-02 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 15.03 ft** **Total Depth: 30.03 ft** **Initial Depth to Water: 4.88 ft**	**Pump Type: GeoTech Peristaltic** **Tubing Type: LDPE** **Pump Intake From TOC: 22.53 ft** **Estimated Total Volume Pumped: 7800 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 150 ml/min** **Final Draw Down: -0.42 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 789301**

Test Notes:
Prepurged 1 L
Incoming high tide potentially influencing stabilization.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
9/20/2022 2:08 PM	00:00	7.67 pH	28.67 °C	8,163.0 µS/cm	0.18 mg/L	2.40 NTU	-95.9 mV	4.85 ft	4.60 PSU	150.00 ml/min
9/20/2022 2:12 PM	04:00	7.58 pH	28.17 °C	8,173.4 µS/cm	0.15 mg/L	2.19 NTU	-74.2 mV	4.84 ft	4.60 PSU	150.00 ml/min
9/20/2022 2:16 PM	08:00	7.56 pH	28.45 °C	8,317.3 µS/cm	0.12 mg/L	2.13 NTU	-72.8 mV	4.81 ft	4.69 PSU	150.00 ml/min
9/20/2022 2:20 PM	12:00	7.53 pH	28.29 °C	8,857.0 µS/cm	0.09 mg/L	1.37 NTU	-70.1 mV	4.80 ft	5.02 PSU	150.00 ml/min
9/20/2022 2:24 PM	16:00	7.49 pH	27.96 °C	9,399.6 µS/cm	0.08 mg/L	1.21 NTU	-70.6 mV	4.78 ft	5.35 PSU	150.00 ml/min
9/20/2022 2:28 PM	20:00	7.45 pH	28.36 °C	9,658.4 µS/cm	0.08 mg/L	1.19 NTU	-73.7 mV	4.74 ft	5.51 PSU	150.00 ml/min
9/20/2022 2:32 PM	24:00	7.44 pH	28.05 °C	9,721.1 µS/cm	0.08 mg/L	1.03 NTU	-71.3 mV	4.72 ft	5.54 PSU	150.00 ml/min
9/20/2022 2:36 PM	28:00	7.42 pH	27.46 °C	10,254 µS/cm	0.08 mg/L	0.99 NTU	-72.0 mV	4.69 ft	5.87 PSU	150.00 ml/min
9/20/2022 2:40 PM	32:00	7.39 pH	27.39 °C	10,717 µS/cm	0.07 mg/L	0.84 NTU	-72.5 mV	4.65 ft	6.16 PSU	150.00 ml/min
9/20/2022 2:44 PM	36:00	7.36 pH	27.43 °C	11,096 µS/cm	0.06 mg/L	0.72 NTU	-72.7 mV	4.62 ft	6.39 PSU	150.00 ml/min
9/20/2022 2:48 PM	40:00	7.35 pH	27.55 °C	11,394 µS/cm	0.07 mg/L	0.62 NTU	-73.7 mV	4.59 ft	6.58 PSU	150.00 ml/min
9/20/2022 2:52 PM	44:00	7.34 pH	27.49 °C	11,646 µS/cm	0.08 mg/L	0.65 NTU	-74.5 mV	4.55 ft	6.74 PSU	150.00 ml/min
9/20/2022 2:56 PM	48:00	7.32 pH	27.99 °C	11,813 µS/cm	0.06 mg/L	0.70 NTU	-76.0 mV	4.50 ft	6.84 PSU	150.00 ml/min
9/20/2022 3:00 PM	52:00	7.32 pH	27.76 °C	11,848 µS/cm	0.06 mg/L	0.56 NTU	-75.6 mV	4.46 ft	6.86 PSU	150.00 ml/min

Samples

Sample ID:	Description:
DR-02	Metals, Inorganics, TDS, Sulfide, Dis. Fe, As Spec

Low-Flow Test Report:

Test Date / Time: 9/20/2022 2:09:25 PM
Project: September 2022 McManus CCR Event
Operator Name: Meredith Duncan

Location Name: DR-01 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 15.58 ft** **Total Depth: 30.58 ft** **Initial Depth to Water: 4.94 ft**	**Pump Type: GeoTech Peristaltic** **Tubing Type: PVC** **Pump Intake From TOC: 23.08 ft** **Estimated Total Volume Pumped: 11200 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: -0.44 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 893479**

Test Notes:
Prepurge 2L

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
9/20/2022 2:09 PM	00:00	7.15 pH	26.57 °C	5,997.1 µS/cm	0.16 mg/L	1.75 NTU	-192.1 mV	4.94 ft	200.00 ml/min
9/20/2022 2:13 PM	04:00	7.21 pH	25.67 °C	6,520.7 µS/cm	0.13 mg/L	1.80 NTU	-185.4 mV	4.91 ft	200.00 ml/min
9/20/2022 2:17 PM	08:00	7.24 pH	25.77 °C	6,800.0 µS/cm	0.10 mg/L	2.88 NTU	-185.2 mV	4.89 ft	200.00 ml/min
9/20/2022 2:21 PM	12:00	7.27 pH	25.61 °C	7,022.0 µS/cm	0.08 mg/L	2.70 NTU	-184.9 mV	4.85 ft	200.00 ml/min
9/20/2022 2:25 PM	16:00	7.29 pH	25.47 °C	7,291.5 µS/cm	0.07 mg/L	2.64 NTU	-185.3 mV	4.83 ft	200.00 ml/min
9/20/2022 2:29 PM	20:00	7.33 pH	25.43 °C	7,652.0 µS/cm	0.07 mg/L	1.64 NTU	-187.2 mV	4.80 ft	200.00 ml/min
9/20/2022 2:33 PM	24:00	7.35 pH	25.37 °C	7,961.6 µS/cm	0.07 mg/L	1.38 NTU	-187.4 mV	4.77 ft	200.00 ml/min
9/20/2022 2:37 PM	28:00	7.36 pH	25.27 °C	8,319.0 µS/cm	0.07 mg/L	1.01 NTU	-187.3 mV	4.72 ft	200.00 ml/min
9/20/2022 2:41 PM	32:00	7.37 pH	25.24 °C	8,587.2 µS/cm	0.06 mg/L	0.86 NTU	-187.6 mV	4.71 ft	200.00 ml/min
9/20/2022 2:45 PM	36:00	7.37 pH	25.19 °C	8,868.9 µS/cm	0.06 mg/L	0.60 NTU	-187.0 mV	4.68 ft	200.00 ml/min
9/20/2022 2:49 PM	40:00	7.36 pH	25.15 °C	9,093.8 µS/cm	0.05 mg/L	0.93 NTU	-187.0 mV	4.64 ft	200.00 ml/min
9/20/2022 2:53 PM	44:00	7.36 pH	25.15 °C	9,380.6 µS/cm	0.05 mg/L	0.66 NTU	-187.1 mV	4.61 ft	200.00 ml/min
9/20/2022 2:57 PM	48:00	7.36 pH	25.20 °C	9,552.8 µS/cm	0.05 mg/L	1.11 NTU	-186.1 mV	4.59 ft	200.00 ml/min
9/20/2022 3:01 PM	52:00	7.36 pH	25.17 °C	9,743.6 µS/cm	0.05 mg/L	0.94 NTU	-186.8 mV	4.53 ft	200.00 ml/min
9/20/2022 3:05 PM	56:00	7.36 pH	25.14 °C	9,877.5 µS/cm	0.05 mg/L	0.87 NTU	-186.6 mV	4.50 ft	200.00 ml/min

Samples

Sample ID:	Description:
DR-01	Metals, Inorganics, TDS, Sulfide, Dis. Fe, As. Spec.

Low-Flow Test Report:

Test Date / Time: 9/20/2022 3:36:06 PM
Project: September 2022 McManus CCR Event
Operator Name: Kevin Stephenson

Location Name: MCM-19 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 18.32 ft** **Total Depth: 28.32 ft** **Initial Depth to Water: 6.07 ft**	**Pump Type: GeoTech Peristaltic** **Tubing Type: LDPE** **Pump Intake From TOC: 23.32 ft** **Estimated Total Volume Pumped: 4480 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 280 ml/min** **Final Draw Down: 0.09 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 789317**

Test Notes:
Pre-purged 1 liter

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
9/20/2022 3:36 PM	00:00	5.18 pH	25.46 °C	18,265 µS/cm	0.20 mg/L	0.21 NTU	141.7 mV	6.26 ft	10.97 PSU	280.00 ml/min
9/20/2022 3:40 PM	04:00	5.16 pH	25.37 °C	17,923 µS/cm	0.15 mg/L	0.62 NTU	132.8 mV	6.25 ft	10.74 PSU	280.00 ml/min
9/20/2022 3:44 PM	08:00	5.14 pH	25.45 °C	17,739 µS/cm	0.13 mg/L	0.63 NTU	127.5 mV	6.22 ft	10.62 PSU	280.00 ml/min
9/20/2022 3:48 PM	12:00	5.14 pH	24.86 °C	17,657 µS/cm	0.12 mg/L	0.40 NTU	123.6 mV	6.19 ft	10.57 PSU	280.00 ml/min
9/20/2022 3:52 PM	16:00	5.14 pH	24.86 °C	17,407 µS/cm	0.11 mg/L	0.42 NTU	120.9 mV	6.16 ft	10.40 PSU	280.00 ml/min

Samples

Sample ID:	Description:
MCM-19	Metals, Inorganics, TDS, Alkalinity, Radium

Low-Flow Test Report:

Test Date / Time: 9/20/2022 4:00:55 PM
Project: September 2022 McManus CCR Event
Operator Name: Meredith Duncan

Location Name: PT-02 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 14.38 ft** **Total Depth: 24.38 ft** **Initial Depth to Water: 4.15 ft**	**Pump Type: GeoTech Peristaltic** **Tubing Type: PVC** **Pump Intake From TOC: 19.38 ft** **Estimated Total Volume Pumped: 5600 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: -0.22 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 893479**

Test Notes:
Prepurge 2L

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
9/20/2022 4:00 PM	00:00	7.20 pH	28.58 °C	5,128.7 µS/cm	0.24 mg/L	2.17 NTU	-172.5 mV	4.15 ft	200.00 ml/min
9/20/2022 4:04 PM	04:00	7.21 pH	27.41 °C	5,187.1 µS/cm	0.14 mg/L	1.51 NTU	-163.8 mV	4.10 ft	200.00 ml/min
9/20/2022 4:08 PM	08:00	7.21 pH	26.94 °C	5,224.4 µS/cm	0.11 mg/L	0.66 NTU	-161.8 mV	4.07 ft	200.00 ml/min
9/20/2022 4:12 PM	12:00	7.40 pH	26.57 °C	6,937.5 µS/cm	0.09 mg/L	0.70 NTU	-181.9 mV	4.05 ft	200.00 ml/min
9/20/2022 4:16 PM	16:00	7.40 pH	26.41 °C	6,920.6 µS/cm	0.08 mg/L	0.58 NTU	-180.6 mV	4.02 ft	200.00 ml/min
9/20/2022 4:20 PM	20:00	7.39 pH	26.27 °C	6,890.6 µS/cm	0.07 mg/L	0.65 NTU	-179.9 mV	3.99 ft	200.00 ml/min
9/20/2022 4:24 PM	24:00	7.38 pH	26.25 °C	6,871.9 µS/cm	0.07 mg/L	0.52 NTU	-179.0 mV	3.95 ft	200.00 ml/min
9/20/2022 4:28 PM	28:00	7.38 pH	26.08 °C	6,841.4 µS/cm	0.06 mg/L	0.50 NTU	-176.8 mV	3.93 ft	200.00 ml/min

Samples

Sample ID:	Description:
PT-02	Metals, Inorganics, TDS, Sulfide, Dis. Fe, Radium, As. Spec

Low-Flow Test Report:

Test Date / Time: 9/20/2022 4:05:02 PM
Project: September 2022 McManus CCR Event
Operator Name: William Laaker

Location Name: PT-03 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 15.36 ft** **Total Depth: 25.36 ft** **Initial Depth to Water: 3.89 ft**	**Pump Type: GeoTech Peristaltic** **Tubing Type: LDPE** **Pump Intake From TOC: 20.36 ft** **Estimated Total Volume Pumped: 4000 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: -0.18 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 789301**

Test Notes:
Prepurged 1 L

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
9/20/2022 4:05 PM	00:00	7.76 pH	27.71 °C	6,923.1 µS/cm	0.10 mg/L	3.77 NTU	-111.9 mV	3.84 ft	3.85 PSU	200.00 ml/min
9/20/2022 4:09 PM	04:00	7.43 pH	27.55 °C	6,912.6 µS/cm	0.08 mg/L	2.96 NTU	-84.2 mV	3.82 ft	3.85 PSU	200.00 ml/min
9/20/2022 4:13 PM	08:00	7.38 pH	27.43 °C	6,831.1 µS/cm	0.07 mg/L	2.21 NTU	-77.1 mV	3.80 ft	3.80 PSU	200.00 ml/min
9/20/2022 4:17 PM	12:00	7.34 pH	27.61 °C	6,759.0 µS/cm	0.07 mg/L	1.81 NTU	-73.6 mV	3.78 ft	3.75 PSU	200.00 ml/min
9/20/2022 4:21 PM	16:00	7.32 pH	27.40 °C	6,722.6 µS/cm	0.06 mg/L	1.74 NTU	-70.1 mV	3.74 ft	3.73 PSU	200.00 ml/min
9/20/2022 4:25 PM	20:00	7.30 pH	27.57 °C	6,659.5 µS/cm	0.06 mg/L	1.37 NTU	-68.5 mV	3.71 ft	3.69 PSU	200.00 ml/min

Samples

Sample ID:	Description:
PT-03	Metals, Inorganics, TDS, Sulfide, Dis. Fe, Radium

Low-Flow Test Report:

Test Date / Time: 9/21/2022 10:02:08 AM
Project: September 2022 McManus CCR Event
Operator Name: William Laaker

Location Name: MCM-12 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 19 ft** **Total Depth: 29 ft** **Initial Depth to Water: 7.78 ft**	**Pump Type: QED Dedicated** **Tubing Type: LDPE** **Pump Intake From TOC: 24 ft** **Estimated Total Volume Pumped: 12441.833 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 190 ml/min** **Final Draw Down: 1.9 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 789301**

Test Notes:
Prepurged 1 L

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
9/21/2022 10:02 AM	00:00	6.39 pH	25.71 °C	2,149.2 µS/cm	0.12 mg/L	1.51 NTU	39.0 mV	8.98 ft	1.11 PSU	190.00 ml/min
9/21/2022 10:06 AM	04:00	6.37 pH	25.55 °C	2,139.7 µS/cm	0.07 mg/L	1.59 NTU	53.1 mV	9.20 ft	1.11 PSU	190.00 ml/min
9/21/2022 10:10 AM	08:00	6.36 pH	25.55 °C	2,140.6 µS/cm	0.04 mg/L	3.12 NTU	54.6 mV	9.36 ft	1.11 PSU	190.00 ml/min
9/21/2022 10:11 AM	09:29	6.35 pH	25.55 °C	2,134.6 µS/cm	0.03 mg/L		53.2 mV	9.36 ft	1.10 PSU	190.00 ml/min
9/21/2022 10:15 AM	13:29	6.35 pH	25.51 °C	2,136.6 µS/cm	0.01 mg/L	7.23 NTU	54.4 mV	9.48 ft	1.11 PSU	190.00 ml/min
9/21/2022 10:19 AM	17:29	6.34 pH	25.43 °C	2,140.4 µS/cm	0.00 mg/L	8.96 NTU	55.9 mV	9.54 ft	1.11 PSU	190.00 ml/min
9/21/2022 10:23 AM	21:29	6.34 pH	25.50 °C	2,147.8 µS/cm	0.00 mg/L	9.48 NTU	56.3 mV	9.60 ft	1.11 PSU	190.00 ml/min
9/21/2022 10:27 AM	25:29	6.34 pH	25.51 °C	2,148.5 µS/cm	0.00 mg/L	9.41 NTU	56.5 mV	9.60 ft	1.11 PSU	190.00 ml/min
9/21/2022 10:31 AM	29:29	6.33 pH	25.52 °C	2,149.8 µS/cm	0.00 mg/L	8.59 NTU	58.1 mV	9.60 ft	1.11 PSU	190.00 ml/min
9/21/2022 10:35 AM	33:29	6.33 pH	25.51 °C	2,146.6 µS/cm	0.00 mg/L	7.56 NTU	58.6 mV	9.64 ft	1.11 PSU	190.00 ml/min
9/21/2022 10:39 AM	37:29	6.33 pH	25.51 °C	2,152.0 µS/cm	0.00 mg/L	7.00 NTU	59.0 mV	9.64 ft	1.11 PSU	190.00 ml/min
9/21/2022 10:43 AM	41:29	6.32 pH	25.51 °C	2,154.4 µS/cm	0.00 mg/L	6.43 NTU	59.8 mV	9.65 ft	1.12 PSU	190.00 ml/min
9/21/2022 10:47 AM	45:29	6.32 pH	25.55 °C	2,151.3 µS/cm	0.00 mg/L	5.69 NTU	60.1 mV	9.65 ft	1.11 PSU	190.00 ml/min
9/21/2022 10:51 AM	49:29	6.32 pH	25.44 °C	2,152.8 µS/cm	0.00 mg/L	5.30 NTU	60.8 mV	9.68 ft	1.11 PSU	190.00 ml/min
9/21/2022 10:55 AM	53:29	6.31 pH	25.44 °C	2,155.6 µS/cm	0.00 mg/L	5.02 NTU	60.7 mV	9.68 ft	1.12 PSU	190.00 ml/min

9/21/2022 10:59 AM	57:29	6.31 pH	25.43 °C	2,159.1 µS/cm	0.00 mg/L	4.90 NTU	60.8 mV	9.68 ft	1.12 PSU	190.00 ml/min
9/21/2022 11:03 AM	01:01:29	6.31 pH	25.45 °C	2,158.0 µS/cm	0.00 mg/L	4.63 NTU	61.5 mV	9.68 ft	1.12 PSU	190.00 ml/min
9/21/2022 11:07 AM	01:05:29	6.30 pH	25.33 °C	2,160.3 µS/cm	0.00 mg/L	4.40 NTU	61.4 mV	9.68 ft	1.12 PSU	190.00 ml/min

Samples

Sample ID:	Description:
MCM-12	Metals, Inorganics, TDS, Alkalinity, Radium

Low-Flow Test Report:

Test Date / Time: 9/21/2022 10:08:25 AM
Project: September 2022 McManus CCR Event
Operator Name: Meredith Duncan

Location Name: MCM-07 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 13.75 ft** **Total Depth: 23.75 ft** **Initial Depth to Water: 7.08 ft**	**Pump Type: QED Dedicated** **Tubing Type: PVC** **Pump Intake From TOC: 18.75 ft** **Estimated Total Volume Pumped: 4480 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 160 ml/min** **Final Draw Down: 0.33 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 893479**

Test Notes:
Prepurge 1L

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
9/21/2022 10:08 AM	00:00	6.47 pH	27.17 °C	9,485.6 µS/cm	0.34 mg/L	13.30 NTU	-153.6 mV	7.08 ft	160.00 ml/min
9/21/2022 10:12 AM	04:00	6.37 pH	26.70 °C	12,996 µS/cm	0.23 mg/L	6.86 NTU	-145.8 mV	7.21 ft	160.00 ml/min
9/21/2022 10:16 AM	08:00	6.30 pH	26.57 °C	16,231 µS/cm	0.18 mg/L	3.42 NTU	-141.6 mV	7.27 ft	160.00 ml/min
9/21/2022 10:20 AM	12:00	6.26 pH	26.59 °C	18,553 µS/cm	0.15 mg/L	1.10 NTU	-137.5 mV	7.32 ft	160.00 ml/min
9/21/2022 10:24 AM	16:00	6.28 pH	26.66 °C	18,127 µS/cm	0.11 mg/L	2.27 NTU	-137.8 mV	7.35 ft	160.00 ml/min
9/21/2022 10:28 AM	20:00	6.27 pH	26.63 °C	18,451 µS/cm	0.09 mg/L	1.64 NTU	-137.1 mV	7.37 ft	160.00 ml/min
9/21/2022 10:32 AM	24:00	6.27 pH	26.73 °C	18,682 µS/cm	0.08 mg/L	1.16 NTU	-136.5 mV	7.40 ft	160.00 ml/min
9/21/2022 10:36 AM	28:00	6.27 pH	26.78 °C	18,853 µS/cm	0.07 mg/L	1.03 NTU	-136.2 mV	7.41 ft	160.00 ml/min

Samples

Sample ID:	Description:
MCM-07	Metals, Inorganics, TDS, Alkalinity, Radium

Low-Flow Test Report:

Test Date / Time: 9/21/2022 10:42:32 AM
Project: September 2022 McManus CCR Event
Operator Name: Kevin Stephenson

Location Name: MCM-11 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 14 ft** **Total Depth: 24 ft** **Initial Depth to Water: 4.2 ft**	**Pump Type: GeoTech Peristaltic** **Tubing Type: LDPE** **Pump Intake From TOC: 19 ft** **Estimated Total Volume Pumped: 9600 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 240 ml/min** **Final Draw Down: 1.32 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 789317**

Test Notes:
Pre-purged 1.5 liters.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
9/21/2022 10:42 AM	00:00	4.91 pH	27.90 °C	172.42 µS/cm	0.22 mg/L	3.46 NTU	135.5 mV	5.31 ft	0.08 PSU	240.00 ml/min
9/21/2022 10:46 AM	04:00	4.92 pH	27.75 °C	174.62 µS/cm	0.17 mg/L	3.33 NTU	126.0 mV	5.44 ft	0.08 PSU	240.00 ml/min
9/21/2022 10:50 AM	08:00	4.93 pH	27.79 °C	181.79 µS/cm	0.16 mg/L	2.89 NTU	122.1 mV	5.47 ft	0.09 PSU	240.00 ml/min
9/21/2022 10:54 AM	12:00	4.94 pH	27.75 °C	185.81 µS/cm	0.14 mg/L	1.49 NTU	120.4 mV	5.48 ft	0.09 PSU	240.00 ml/min
9/21/2022 10:58 AM	16:00	4.95 pH	27.79 °C	191.69 µS/cm	0.13 mg/L	1.01 NTU	119.9 mV	5.50 ft	0.09 PSU	240.00 ml/min
9/21/2022 11:02 AM	20:00	4.96 pH	27.87 °C	198.67 µS/cm	0.12 mg/L	1.12 NTU	119.6 mV	5.53 ft	0.09 PSU	240.00 ml/min
9/21/2022 11:06 AM	24:00	4.96 pH	27.96 °C	204.15 µS/cm	0.12 mg/L	0.55 NTU	118.8 mV	5.53 ft	0.10 PSU	240.00 ml/min
9/21/2022 11:10 AM	28:00	4.97 pH	27.98 °C	204.01 µS/cm	0.13 mg/L	0.77 NTU	119.9 mV	5.52 ft	0.10 PSU	240.00 ml/min
9/21/2022 11:14 AM	32:00	4.97 pH	28.00 °C	209.68 µS/cm	0.14 mg/L	0.70 NTU	120.0 mV	5.52 ft	0.10 PSU	240.00 ml/min
9/21/2022 11:18 AM	36:00	4.97 pH	27.89 °C	215.10 µS/cm	0.15 mg/L	0.78 NTU	121.3 mV	5.52 ft	0.10 PSU	240.00 ml/min
9/21/2022 11:22 AM	40:00	4.97 pH	28.00 °C	216.67 µS/cm	0.15 mg/L	0.72 NTU	122.2 mV	5.52 ft	0.10 PSU	240.00 ml/min

Samples

Sample ID:	Description:
MCM-11	Metals, Inorganics, TDS, Alkalinity, Radium

Low-Flow Test Report:

Test Date / Time: 9/21/2022 1:22:15 PM
Project: September 2022 McManus CCR Event
Operator Name: William Laaker

Location Name: MCM-14 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 18.11 ft** **Total Depth: 28.11 ft** **Initial Depth to Water: 9.43 ft**	**Pump Type: QED Dedicated** **Tubing Type: LDPE** **Pump Intake From TOC: 23.11 ft** **Estimated Total Volume Pumped: 5400 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 150 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 789301**

Test Notes:
Prepurged 1 L

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
9/21/2022 1:22 PM	00:00	6.76 pH	27.30 °C	8,398.8 µS/cm	0.61 mg/L	0.41 NTU	-83.9 mV	9.48 ft	4.74 PSU	150.00 ml/min
9/21/2022 1:26 PM	04:00	6.78 pH	26.97 °C	7,480.1 µS/cm	0.28 mg/L	0.33 NTU	-70.8 mV	9.48 ft	4.18 PSU	150.00 ml/min
9/21/2022 1:30 PM	08:00	6.74 pH	26.88 °C	7,756.1 µS/cm	0.16 mg/L	0.45 NTU	-65.1 mV	9.48 ft	4.35 PSU	150.00 ml/min
9/21/2022 1:34 PM	12:00	6.69 pH	26.84 °C	8,497.8 µS/cm	0.13 mg/L	0.30 NTU	-62.8 mV	9.48 ft	4.80 PSU	150.00 ml/min
9/21/2022 1:38 PM	16:00	6.65 pH	26.79 °C	9,175.2 µS/cm	0.12 mg/L	0.28 NTU	-58.3 mV	9.48 ft	5.21 PSU	150.00 ml/min
9/21/2022 1:42 PM	20:00	6.64 pH	26.70 °C	9,604.6 µS/cm	0.13 mg/L	0.25 NTU	-57.3 mV	9.48 ft	5.47 PSU	150.00 ml/min
9/21/2022 1:46 PM	24:00	6.62 pH	26.72 °C	9,956.6 µS/cm	0.12 mg/L	0.23 NTU	-55.0 mV	9.48 ft	5.69 PSU	150.00 ml/min
9/21/2022 1:50 PM	28:00	6.61 pH	26.49 °C	10,062 µS/cm	0.12 mg/L	0.21 NTU	-54.4 mV	9.46 ft	5.75 PSU	150.00 ml/min
9/21/2022 1:54 PM	32:00	6.61 pH	26.15 °C	10,277 µS/cm	0.11 mg/L	0.19 NTU	-53.8 mV	9.44 ft	5.89 PSU	150.00 ml/min
9/21/2022 1:58 PM	36:00	6.61 pH	26.03 °C	10,327 µS/cm	0.13 mg/L	0.19 NTU	-52.0 mV	9.43 ft	5.92 PSU	150.00 ml/min

Samples

Sample ID:	Description:
MCM-14	Metals, Inorganics, TDS, Alkalinity, Radium

Low-Flow Test Report:

Test Date / Time: 9/21/2022 1:23:44 PM
Project: September 2022 McManus CCR Event
Operator Name: Meredith Duncan

Location Name: PT-04D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 30.85 ft** **Total Depth: 40.85 ft** **Initial Depth to Water: 5.57 ft**	**Pump Type: GeoTech Peristaltic** **Tubing Type: PVC** **Pump Intake From TOC: 35.85 ft** **Estimated Total Volume Pumped: 4000 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.02 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 893479**

Test Notes:
Prepurge 2L

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
9/21/2022 1:23 PM	00:00	7.16 pH	26.98 °C	18,576 µS/cm	0.63 mg/L	1.08 NTU	-188.8 mV	5.57 ft	200.00 ml/min
9/21/2022 1:27 PM	04:00	7.20 pH	25.62 °C	18,598 µS/cm	0.35 mg/L	0.50 NTU	-184.8 mV	5.60 ft	200.00 ml/min
9/21/2022 1:31 PM	08:00	7.20 pH	25.42 °C	18,686 µS/cm	0.20 mg/L	0.43 NTU	-185.3 mV	5.61 ft	200.00 ml/min
9/21/2022 1:35 PM	12:00	7.20 pH	25.24 °C	18,807 µS/cm	0.15 mg/L	0.52 NTU	-186.2 mV	5.61 ft	200.00 ml/min
9/21/2022 1:39 PM	16:00	7.20 pH	25.11 °C	18,970 µS/cm	0.13 mg/L	0.49 NTU	-186.7 mV	5.60 ft	200.00 ml/min
9/21/2022 1:43 PM	20:00	7.20 pH	25.13 °C	19,056 µS/cm	0.12 mg/L	0.46 NTU	-185.5 mV	5.59 ft	200.00 ml/min

Samples

Sample ID:	Description:
PT-04D	Metals, Inorganics, TDS, Sulfide, Dis. Fe, Radium

Low-Flow Test Report:

Test Date / Time: 9/21/2022 1:26:12 PM
Project: September 2022 McManus CCR Event
Operator Name: Kevin Stephenson

Location Name: MCM-02 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 17.35 ft** **Total Depth: 27.35 ft** **Initial Depth to Water: 2.93 ft**	**Pump Type: GeoTech Peristaltic** **Tubing Type: LDPE** **Pump Intake From TOC: 22.35 ft** **Estimated Total Volume Pumped: 6720 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 280 ml/min** **Final Draw Down: 0.12 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 789317**

Test Notes:
Pre-purged 1 liter

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
9/21/2022 1:26 PM	00:00	4.93 pH	25.10 °C	195.77 µS/cm	0.24 mg/L	0.47 NTU	88.1 mV	3.05 ft	0.09 PSU	280.00 ml/min
9/21/2022 1:30 PM	04:00	5.18 pH	24.23 °C	179.79 µS/cm	0.17 mg/L	0.07 NTU	76.9 mV	3.05 ft	0.09 PSU	280.00 ml/min
9/21/2022 1:34 PM	08:00	5.18 pH	24.14 °C	170.81 µS/cm	0.15 mg/L	0.90 NTU	73.4 mV	3.05 ft	0.08 PSU	280.00 ml/min
9/21/2022 1:38 PM	12:00	5.16 pH	24.09 °C	166.84 µS/cm	0.14 mg/L	3.91 NTU	72.7 mV	3.05 ft	0.08 PSU	280.00 ml/min
9/21/2022 1:42 PM	16:00	5.14 pH	24.09 °C	166.00 µS/cm	0.13 mg/L	1.22 NTU	73.3 mV	3.05 ft	0.08 PSU	280.00 ml/min
9/21/2022 1:46 PM	20:00	5.14 pH	24.01 °C	168.92 µS/cm	0.12 mg/L	0.74 NTU	73.2 mV	3.05 ft	0.08 PSU	280.00 ml/min
9/21/2022 1:50 PM	24:00	5.14 pH	23.78 °C	169.51 µS/cm	0.11 mg/L	0.93 NTU	73.3 mV	3.05 ft	0.08 PSU	280.00 ml/min

Samples

Sample ID:	Description:
MCM-02	Metals, Inorganics, TDS, Alkalinity, Radium

Low-Flow Test Report:

Test Date / Time: 9/21/2022 2:46:58 PM
Project: September 2022 McManus CCR Event
Operator Name: Meredith Duncan

Location Name: MCM-05 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 18.05 ft** **Total Depth: 28.05 ft** **Initial Depth to Water: 7.04 ft**	**Pump Type: QED Dedicated** **Tubing Type: PVC** **Pump Intake From TOC: 23.05 ft** **Estimated Total Volume Pumped: 3200 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 160 ml/min** **Final Draw Down: -0.4 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 893479**

Test Notes:
Prepurge 1L

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
9/21/2022 2:46 PM	00:00	6.79 pH	29.93 °C	5,327.0 µS/cm	1.89 mg/L	1.11 NTU	-156.0 mV	6.74 ft	160.00 ml/min
9/21/2022 2:50 PM	04:00	6.92 pH	28.27 °C	4,340.8 µS/cm	0.64 mg/L	0.52 NTU	-178.8 mV	6.72 ft	160.00 ml/min
9/21/2022 2:54 PM	08:00	6.94 pH	27.76 °C	4,216.4 µS/cm	0.32 mg/L	0.68 NTU	-181.8 mV	6.71 ft	160.00 ml/min
9/21/2022 2:58 PM	12:00	6.94 pH	27.87 °C	4,149.6 µS/cm	0.18 mg/L	0.75 NTU	-181.3 mV	6.69 ft	160.00 ml/min
9/21/2022 3:02 PM	16:00	6.94 pH	27.74 °C	4,101.1 µS/cm	0.13 mg/L	0.55 NTU	-180.7 mV	6.66 ft	160.00 ml/min
9/21/2022 3:06 PM	20:00	6.93 pH	27.78 °C	4,031.5 µS/cm	0.10 mg/L	0.52 NTU	-181.7 mV	6.64 ft	160.00 ml/min

Samples

Sample ID:	Description:
MCM-05	Metals, Inorganics, TDS, Alkalinity, Radium

Low-Flow Test Report:

Test Date / Time: 9/21/2022 2:57:14 PM
Project: September 2022 McManus CCR Event
Operator Name: Kevin Stephenson

Location Name: MCM-04 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 18.57 ft** **Total Depth: 28.57 ft** **Initial Depth to Water: 7.98 ft**	**Pump Type: GeoTech Peristaltic** **Tubing Type: LDPE** **Pump Intake From TOC: 23.57 ft** **Estimated Total Volume Pumped: 5200 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 260 ml/min** **Final Draw Down: 0.2 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 789317**

Test Notes:
Pre-purged 1 liter

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
9/21/2022 2:57 PM	00:00	5.43 pH	28.58 °C	300.03 µS/cm	3.58 mg/L	2.74 NTU	118.6 mV	8.19 ft	0.14 PSU	260.00 ml/min
9/21/2022 3:01 PM	04:00	5.37 pH	24.66 °C	316.77 µS/cm	0.19 mg/L	1.02 NTU	117.0 mV	8.19 ft	0.15 PSU	260.00 ml/min
9/21/2022 3:05 PM	08:00	5.35 pH	24.33 °C	318.58 µS/cm	0.16 mg/L	1.25 NTU	110.7 mV	8.18 ft	0.15 PSU	260.00 ml/min
9/21/2022 3:09 PM	12:00	5.35 pH	24.36 °C	316.09 µS/cm	0.14 mg/L	1.13 NTU	106.8 mV	8.18 ft	0.15 PSU	260.00 ml/min
9/21/2022 3:13 PM	16:00	5.35 pH	24.23 °C	316.12 µS/cm	0.13 mg/L	0.69 NTU	104.0 mV	8.18 ft	0.15 PSU	260.00 ml/min
9/21/2022 3:17 PM	20:00	5.34 pH	24.14 °C	316.49 µS/cm	0.12 mg/L	0.92 NTU	101.7 mV	8.18 ft	0.15 PSU	260.00 ml/min

Samples

Sample ID:	Description:
MCM-04	Metals, Inorganics, TDS, Alkalinity, Radium

Low-Flow Test Report:

Test Date / Time: 9/21/2022 4:01:31 PM
Project: September 2022 McManus CCR Event
Operator Name: Meredith Duncan

Location Name: MCM-15 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 16.6 ft** **Total Depth: 26.6 ft** **Initial Depth to Water: 7.6 ft**	**Pump Type: QED Dedicated** **Tubing Type: PVC** **Pump Intake From TOC: 21.6 ft** **Estimated Total Volume Pumped: 4800 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: -0.02 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 893479**

Test Notes:
Prepurge 2L

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
9/21/2022 4:01 PM	00:00	5.55 pH	28.30 °C	73.27 µS/cm	1.68 mg/L	0.54 NTU	39.5 mV	7.60 ft	200.00 ml/min
9/21/2022 4:05 PM	04:00	5.33 pH	26.89 °C	54.08 µS/cm	0.47 mg/L	1.44 NTU	68.3 mV	7.60 ft	200.00 ml/min
9/21/2022 4:09 PM	08:00	5.28 pH	26.43 °C	51.66 µS/cm	0.27 mg/L	1.16 NTU	76.8 mV	7.60 ft	200.00 ml/min
9/21/2022 4:13 PM	12:00	5.27 pH	26.34 °C	50.99 µS/cm	0.20 mg/L	1.04 NTU	81.1 mV	7.60 ft	200.00 ml/min
9/21/2022 4:17 PM	16:00	5.25 pH	26.17 °C	50.59 µS/cm	0.17 mg/L	1.14 NTU	84.2 mV	7.59 ft	200.00 ml/min
9/21/2022 4:21 PM	20:00	5.23 pH	26.09 °C	50.53 µS/cm	0.15 mg/L	0.82 NTU	86.5 mV	7.59 ft	200.00 ml/min
9/21/2022 4:25 PM	24:00	5.23 pH	25.91 °C	50.32 µS/cm	0.14 mg/L	0.71 NTU	87.8 mV	7.58 ft	200.00 ml/min

Samples

Sample ID:	Description:
MCM-15	Metals, Inorganics, TDS, Alkalinity, Radium
DUP-2	Metals, Inorganics, TDS, Alkalinity, Radium

Low-Flow Test Report:

Test Date / Time: 9/21/2022 4:38:28 PM
Project: September 2022 McManus CCR Event
Operator Name: Kevin Stephenson

Location Name: MCM-16 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 18.39 ft** **Total Depth: 28.39 ft** **Initial Depth to Water: 7.56 ft**	**Pump Type: QED Dedicated** **Tubing Type: LDPE** **Pump Intake From TOC: 23.39 ft** **Estimated Total Volume Pumped: 4800 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 240 ml/min** **Final Draw Down: 0.01 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 789317**

Test Notes:
Pre-purged 1.5 liters

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
9/21/2022 4:38 PM	00:00	5.04 pH	23.64 °C	134.68 µS/cm	0.59 mg/L	3.54 NTU	106.0 mV	7.57 ft	0.06 PSU	240.00 ml/min
9/21/2022 4:42 PM	04:00	4.96 pH	23.10 °C	133.55 µS/cm	0.42 mg/L	3.68 NTU	102.5 mV	7.57 ft	0.06 PSU	240.00 ml/min
9/21/2022 4:46 PM	08:00	4.94 pH	22.95 °C	133.59 µS/cm	0.32 mg/L	2.94 NTU	100.5 mV	7.57 ft	0.06 PSU	240.00 ml/min
9/21/2022 4:50 PM	12:00	4.93 pH	22.93 °C	133.17 µS/cm	0.24 mg/L	2.97 NTU	99.4 mV	7.57 ft	0.06 PSU	240.00 ml/min
9/21/2022 4:54 PM	16:00	4.92 pH	22.91 °C	132.88 µS/cm	0.22 mg/L	2.56 NTU	98.8 mV	7.57 ft	0.06 PSU	240.00 ml/min
9/21/2022 4:58 PM	20:00	4.91 pH	22.84 °C	134.01 µS/cm	0.20 mg/L	2.57 NTU	98.7 mV	7.57 ft	0.06 PSU	240.00 ml/min

Samples

Sample ID:	Description:
MCM-16	Metals, Inorganics, TDS, Alkalinity, Radium

Low-Flow Test Report:

Test Date / Time: 9/21/2022 5:39:50 PM
Project: September 2022 McManus CCR Event
Operator Name: Meredith Duncan

Location Name: MCM-17 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 17.44 ft** **Total Depth: 27.44 ft** **Initial Depth to Water: 7.93 ft**	**Pump Type: QED Dedicated** **Tubing Type: PVC** **Pump Intake From TOC: 22.44 ft** **Estimated Total Volume Pumped: 9600 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: -0.21 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 893479**

Test Notes:
Prepurge 1L

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
9/21/2022 5:39 PM	00:00	6.29 pH	32.09 °C	11,679 µS/cm	1.55 mg/L	1.57 NTU	-94.4 mV	7.93 ft	200.00 ml/min
9/21/2022 5:43 PM	04:00	6.21 pH	27.12 °C	10,817 µS/cm	0.26 mg/L	1.53 NTU	-113.5 mV	7.91 ft	200.00 ml/min
9/21/2022 5:47 PM	08:00	6.23 pH	26.38 °C	10,752 µS/cm	0.13 mg/L	1.85 NTU	-115.6 mV	7.90 ft	200.00 ml/min
9/21/2022 5:51 PM	12:00	6.24 pH	26.09 °C	10,716 µS/cm	0.10 mg/L	2.62 NTU	-115.1 mV	7.90 ft	200.00 ml/min
9/21/2022 5:55 PM	16:00	6.29 pH	25.87 °C	10,748 µS/cm	0.08 mg/L	8.71 NTU	-114.2 mV	7.87 ft	200.00 ml/min
9/21/2022 5:59 PM	20:00	6.38 pH	25.85 °C	10,793 µS/cm	0.07 mg/L	4.23 NTU	-116.1 mV	7.85 ft	200.00 ml/min
9/21/2022 6:03 PM	24:00	6.47 pH	25.58 °C	10,804 µS/cm	0.07 mg/L	1.59 NTU	-116.3 mV	7.84 ft	200.00 ml/min
9/21/2022 6:07 PM	28:00	6.52 pH	25.54 °C	10,841 µS/cm	0.06 mg/L	1.66 NTU	-114.8 mV	7.82 ft	200.00 ml/min
9/21/2022 6:11 PM	32:00	6.59 pH	25.38 °C	10,842 µS/cm	0.06 mg/L	1.29 NTU	-113.7 mV	7.81 ft	200.00 ml/min
9/21/2022 6:15 PM	36:00	6.64 pH	25.37 °C	10,831 µS/cm	0.05 mg/L	1.15 NTU	-113.9 mV	7.78 ft	200.00 ml/min
9/21/2022 6:19 PM	40:00	6.67 pH	25.29 °C	10,836 µS/cm	0.05 mg/L	1.17 NTU	-112.3 mV	7.76 ft	200.00 ml/min
9/21/2022 6:23 PM	44:00	6.70 pH	25.21 °C	10,827 µS/cm	0.05 mg/L	0.92 NTU	-112.4 mV	7.73 ft	200.00 ml/min
9/21/2022 6:27 PM	48:00	6.72 pH	25.15 °C	10,837 µS/cm	0.05 mg/L	0.88 NTU	-110.5 mV	7.72 ft	200.00 ml/min

Samples

Sample ID:	Description:
MCM-17	Metals, Inorganics, TDS, Alkalinity, Radium

Low-Flow Test Report:

Test Date / Time: 9/21/2022 5:40:20 PM
Project: September 2022 McManus CCR Event
Operator Name: Kevin Stephenson

Location Name: MCM-01 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 17.32 ft** **Total Depth: 27.32 ft** **Initial Depth to Water: 2.78 ft**	**Pump Type: QED Dedicated** **Tubing Type: LDPE** **Pump Intake From TOC: 22.32 ft** **Estimated Total Volume Pumped: 6240 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 260 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 789317**

Test Notes:
Pre-purged 1 liter

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
9/21/2022 5:40 PM	00:00	4.97 pH	25.91 °C	176.71 µS/cm	1.01 mg/L	11.07 NTU	119.9 mV	2.78 ft	0.08 PSU	260.00 ml/min
9/21/2022 5:44 PM	04:00	4.92 pH	25.09 °C	178.86 µS/cm	0.57 mg/L	10.14 NTU	114.3 mV	2.78 ft	0.09 PSU	260.00 ml/min
9/21/2022 5:48 PM	08:00	4.91 pH	25.01 °C	178.61 µS/cm	0.53 mg/L	8.24 NTU	111.3 mV	2.78 ft	0.08 PSU	260.00 ml/min
9/21/2022 5:52 PM	12:00	4.91 pH	25.04 °C	177.14 µS/cm	0.44 mg/L	7.07 NTU	109.6 mV	2.78 ft	0.08 PSU	260.00 ml/min
9/21/2022 5:56 PM	16:00	4.93 pH	24.95 °C	176.81 µS/cm	0.29 mg/L	4.91 NTU	107.8 mV	2.78 ft	0.08 PSU	260.00 ml/min
9/21/2022 6:00 PM	20:00	4.94 pH	24.95 °C	173.98 µS/cm	0.21 mg/L	4.41 NTU	106.1 mV	2.78 ft	0.08 PSU	260.00 ml/min
9/21/2022 6:04 PM	24:00	4.95 pH	24.89 °C	173.61 µS/cm	0.18 mg/L	3.30 NTU	104.9 mV	2.78 ft	0.08 PSU	260.00 ml/min

Samples

Sample ID:	Description:
MCM-01	Metals, Inorganics, TDS, Alkalinity, Radium

APPENDIX C

SURFACE WATER LABORATORY ANALYTICAL RESULTS AND FIELD SAMPLING REPORTS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

July 22, 2022

Joju Abraham
Georgia Power-CCR
2480 Maner Road
Atlanta, GA 30339

RE: Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on June 09, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Charlotte
- Pace Analytical Services - Minneapolis

This report was revised on July 21, 2022, to update reporting units to mg/L.

Revision 1: This revision was issued on 7/21/22 to report the 6020 reanalyses results of project samples.

Revision 2: This revision was issued on 7/22/22 to report all metals data in mg/L.

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

Sincerely,

Nicole D'Oleo

Nicole D'Oleo
nicole.d'oleo@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Joe Booth, Resolute Environmental & Water Resources
Trent Godwin, Resolute Environmental & Water Resources
Kristen Jurinko
Laura Midkiff, Georgia Power
Ms. Lauren Petty, Southern Company
Kevin Stephenson, Resolute Environmental & Water Resources Consulting, LLC

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

cc: Stephen Wilson, Resolute Environmental & Water Resources Consulting, LLC

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414
A2LA Certification #: 2926.01*
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009*
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014*
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605*
Georgia Certification #: 959
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086*
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064*
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137*
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240*
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081*
New Jersey Certification #: MN002
New York Certification #: 11647*
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Ohio VAP Certification (1800) #: CL110*
Oklahoma Certification #: 9507*
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001*
Pennsylvania Certification #: 68-00563*
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192*
Utah Certification #: MN00064*
Vermont Certification #: VT-027053137
Virginia Certification #: 460163*
Washington Certification #: C486*
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01
USDA Permit #: P330-19-00208
*Please Note: Applicable air certifications are denoted with an asterisk (*).

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Laboratory ID: 99006
South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DoH Drinking Water #: LA029
Virginia/VELAP Certification #: 460221

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Laboratory ID: 99030
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92608869001	**T1-4HT**	Water	06/07/22 18:06	06/09/22 11:00
92608869002	**T1-4HTS**	Water	06/07/22 18:10	06/09/22 11:00
92608869003	**T2-1HT**	Water	06/07/22 16:54	06/09/22 11:00
92608869004	**T2-2HT**	Water	06/07/22 17:05	06/09/22 11:00
92608869005	**T2-2HTS**	Water	06/07/22 17:00	06/09/22 11:00
92608869006	**T2-3HT**	Water	06/07/22 17:28	06/09/22 11:00
92608869007	**T2-3HTS**	Water	06/07/22 17:24	06/09/22 11:00
92608869008	**T2-4HT**	Water	06/07/22 17:45	06/09/22 11:00
92608869009	**T2-4HTS**	Water	06/07/22 17:40	06/09/22 11:00
92608869010	**T3-4HT**	Water	06/07/22 17:57	06/09/22 11:00
92608869011	**T3-4HTS**	Water	06/07/22 17:53	06/09/22 11:00
92608869012	**T4-1HB**	Water	06/07/22 14:54	06/09/22 11:00
92608869013	**T4-1HS**	Water	06/07/22 14:45	06/09/22 11:00
92608869014	**T4-2HB**	Water	06/07/22 15:16	06/09/22 11:00
92608869015	**T4-2HS**	Water	06/07/22 15:09	06/09/22 11:00
92608869016	**T4-3HB**	Water	06/07/22 15:38	06/09/22 11:00
92608869017	**T4-3HS**	Water	06/07/22 15:30	06/09/22 11:00
92608869018	**T4-4HB**	Water	06/07/22 15:57	06/09/22 11:00
92608869019	**T4-4HS**	Water	06/07/22 15:52	06/09/22 11:00
92608869020	**BG-1LT**	Water	06/08/22 10:20	06/09/22 11:00
92608869021	**BG-2HT**	Water	06/07/22 16:20	06/09/22 11:00
92608869022	**DUP-1**	Water	06/07/22 00:00	06/09/22 11:00
92608869023	**DUP-2**	Water	06/07/22 00:00	06/09/22 11:00
92608869024	**DUP-3**	Water	06/07/22 00:00	06/09/22 11:00
92608869025	**FB-1**	Water	06/08/22 08:55	06/09/22 11:00
92608869026	**EB-1**	Water	06/08/22 09:00	06/09/22 11:00

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92608869001	**T1-4HT**	EPA 6010C	DM	4	PASI-M
		EPA 6020B	CRW	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	ZMC	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869002	**T1-4HTS**	EPA 6010C	DM	4	PASI-M
		EPA 6020B	CRW	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	ZMC	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869003	**T2-1HT**	EPA 6010C	DM	4	PASI-M
		EPA 6020B	CRW	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	ZMC	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869004	**T2-2HT**	EPA 6010C	DM	4	PASI-M
		EPA 6020B	CRW	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	ZMC	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869005	**T2-2HTS**	EPA 6010C	DM	4	PASI-M
		EPA 6020B	CRW	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869006	**T2-3HT**	EPA 6010C	DM	4	PASI-M
		EPA 6020B	CRW	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869007	**T2-3HTS**	EPA 6010C	DM	4	PASI-M
		EPA 6020B	CRW	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869008	**T2-4HT**	EPA 6010C	DM	4	PASI-M
		EPA 6020B	CRW	3	PASI-A

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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SAMPLE ANALYTE COUNT

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869009	**T2-4HTS**	EPA 6010C	DM	4	PASI-M
		EPA 6020B	CRW	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869010	**T3-4HT**	EPA 6010C	DM	4	PASI-M
		EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869011	**T3-4HTS**	EPA 6010C	DM	4	PASI-M
		EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869012	**T4-1HB**	EPA 6010C	DM	4	PASI-M
		EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869013	**T4-1HS**	EPA 6010C	DM	4	PASI-M
		EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869014	**T4-2HB**	EPA 6010C	DM	4	PASI-M
		EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869015	**T4-2HS**	EPA 6010C	DM	4	PASI-M
		EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A

REPORT OF LABORATORY ANALYSIS

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Peachtree Corners, GA 30092
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SAMPLE ANALYTE COUNT

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869016	T4-3HB	EPA 6010C	DM	4	PASI-M
		EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869017	T4-3HS	EPA 6010C	DM	4	PASI-M
		EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869018	T4-4HB	EPA 6010C	DM	4	PASI-M
		EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869019	T4-4HS	EPA 6010C	DM	4	PASI-M
		EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869020	BG-1LT	EPA 6010C	DM	4	PASI-M
		EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869021	BG-2HT	EPA 6010C	DM	4	PASI-M
		EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869022	DUP-1	EPA 6010C	DM	4	PASI-M
		EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869023	DUP-2	EPA 6010C	DM	4	PASI-M

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SAMPLE ANALYTE COUNT

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869024	**DUP-3**	EPA 6010C	DM	4	PASI-M
		EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869025	**FB-1**	EPA 6010C	DM	4	PASI-M
		EPA 6020B	CRW	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869026	**EB-1**	EPA 6010C	DM	4	PASI-M
		EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A

PASI-A = Pace Analytical Services - Asheville
PASI-C = Pace Analytical Services - Charlotte
PASI-M = Pace Analytical Services - Minneapolis

Pace Analytical Services, LLC
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SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92608869001	**T1-4HT**					
	Performed by	CUSTOMER			06/09/22 16:00	
	pH	7.43	Std. Units		06/09/22 16:00	
EPA 6010C	Calcium	242	mg/L	10.0	06/24/22 13:40	
EPA 6010C	Magnesium	755	mg/L	10.0	06/24/22 13:40	
EPA 6010C	Potassium	274	mg/L	50.0	06/24/22 13:40	
EPA 6010C	Sodium	5740	mg/L	40.0	06/24/22 14:30	P6
EPA 6020B	Arsenic	0.0049J	mg/L	0.050	07/13/22 17:48	
EPA 6020B	Boron	3.4	mg/L	2.5	07/13/22 17:48	M1
EPA 6020B	Lithium	0.11J	mg/L	0.12	07/13/22 17:48	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	98.8	mg/L	5.0	06/15/22 16:33	
SM 2320B-2011	Alkalinity, Total as CaCO3	98.8	mg/L	5.0	06/15/22 16:33	
SM 2540C-2015	Total Dissolved Solids	22700	mg/L	2500	06/10/22 15:36	
EPA 300.0 Rev 2.1 1993	Chloride	3260	mg/L	100	06/13/22 22:57	
EPA 300.0 Rev 2.1 1993	Sulfate	380	mg/L	100	06/13/22 22:57	
92608869002	**T1-4HTS**					
	Performed by	CUSTOMER			06/09/22 16:00	
	pH	7.50	Std. Units		06/09/22 16:00	
EPA 6010C	Calcium	248	mg/L	10.0	06/24/22 13:52	
EPA 6010C	Magnesium	775	mg/L	10.0	06/24/22 13:52	
EPA 6010C	Potassium	282	mg/L	50.0	06/24/22 13:52	
EPA 6010C	Sodium	5990	mg/L	40.0	06/24/22 14:38	
EPA 6020B	Boron	3.6	mg/L	2.5	07/13/22 18:19	
EPA 6020B	Lithium	0.11J	mg/L	0.12	07/13/22 18:19	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	99.8	mg/L	5.0	06/15/22 16:43	
SM 2320B-2011	Alkalinity, Total as CaCO3	99.8	mg/L	5.0	06/15/22 16:43	
SM 2540C-2015	Total Dissolved Solids	24500	mg/L	2500	06/10/22 15:36	
EPA 300.0 Rev 2.1 1993	Chloride	4270	mg/L	100	06/13/22 23:12	
EPA 300.0 Rev 2.1 1993	Fluoride	1.1J	mg/L	2.0	06/12/22 23:14	D3
EPA 300.0 Rev 2.1 1993	Sulfate	1230	mg/L	20.0	06/12/22 23:14	
92608869003	**T2-1HT**					
	Performed by	CUSTOMER			06/09/22 16:00	
	pH	7.55	Std. Units		06/09/22 16:00	
EPA 6010C	Calcium	214	mg/L	10.0	06/24/22 13:53	
EPA 6010C	Magnesium	663	mg/L	10.0	06/24/22 13:53	
EPA 6010C	Potassium	242	mg/L	50.0	06/24/22 13:53	
EPA 6010C	Sodium	5180	mg/L	40.0	06/24/22 14:40	
EPA 6020B	Boron	3.4	mg/L	2.5	07/13/22 18:23	
EPA 6020B	Lithium	0.098J	mg/L	0.12	07/13/22 18:23	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	87.5	mg/L	5.0	06/15/22 16:53	
SM 2320B-2011	Alkalinity, Total as CaCO3	87.5	mg/L	5.0	06/15/22 16:53	
SM 2540C-2015	Total Dissolved Solids	21200	mg/L	2500	06/10/22 15:36	
EPA 300.0 Rev 2.1 1993	Chloride	3560	mg/L	100	06/13/22 23:28	
EPA 300.0 Rev 2.1 1993	Fluoride	1.0J	mg/L	2.0	06/12/22 23:30	D3
EPA 300.0 Rev 2.1 1993	Sulfate	1050	mg/L	20.0	06/12/22 23:30	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92608869004	**T2-2HT**					
	Performed by	CUSTOMER			06/09/22 16:00	
	pH	7.40	Std. Units		06/09/22 16:00	
EPA 6010C	Calcium	244	mg/L	10.0	06/24/22 13:55	
EPA 6010C	Magnesium	762	mg/L	10.0	06/24/22 13:55	
EPA 6010C	Potassium	279	mg/L	50.0	06/24/22 13:55	
EPA 6010C	Sodium	5940	mg/L	40.0	06/24/22 14:42	
EPA 6020B	Boron	3.8	mg/L	2.5	07/13/22 18:27	
EPA 6020B	Lithium	0.11J	mg/L	0.12	07/13/22 18:27	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	98.5	mg/L	5.0	06/15/22 17:02	
SM 2320B-2011	Alkalinity, Total as CaCO3	98.5	mg/L	5.0	06/15/22 17:02	
SM 2540C-2015	Total Dissolved Solids	20600	mg/L	2500	06/10/22 15:36	
EPA 300.0 Rev 2.1 1993	Chloride	4550	mg/L	100	06/14/22 00:36	
EPA 300.0 Rev 2.1 1993	Fluoride	1.0J	mg/L	2.0	06/13/22 00:06	D3
EPA 300.0 Rev 2.1 1993	Sulfate	1210	mg/L	20.0	06/13/22 00:06	
92608869005	**T2-2HTS**					
	Performed by	CUSTOMER			06/09/22 16:00	
	pH	7.49	Std. Units		06/09/22 16:00	
EPA 6010C	Calcium	206	mg/L	10.0	06/24/22 13:57	
EPA 6010C	Magnesium	634	mg/L	10.0	06/24/22 13:57	
EPA 6010C	Potassium	232	mg/L	50.0	06/24/22 13:57	
EPA 6010C	Sodium	4990	mg/L	40.0	06/24/22 14:43	
EPA 6020B	Boron	3.1	mg/L	2.5	07/13/22 18:32	
EPA 6020B	Lithium	0.098J	mg/L	0.12	07/13/22 18:32	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	83.3	mg/L	5.0	06/15/22 17:22	
SM 2320B-2011	Alkalinity, Total as CaCO3	83.3	mg/L	5.0	06/15/22 17:22	
SM 2540C-2015	Total Dissolved Solids	18400	mg/L	2500	06/11/22 11:40	
EPA 300.0 Rev 2.1 1993	Chloride	3430	mg/L	100	06/14/22 00:52	
EPA 300.0 Rev 2.1 1993	Fluoride	1.0J	mg/L	2.0	06/13/22 00:22	D3
EPA 300.0 Rev 2.1 1993	Sulfate	1010	mg/L	20.0	06/13/22 00:22	
92608869006	**T2-3HT**					
	Performed by	CUSTOMER			06/09/22 16:01	
	pH	7.43	Std. Units		06/09/22 16:01	
EPA 6010C	Calcium	253	mg/L	10.0	06/24/22 13:58	
EPA 6010C	Magnesium	795	mg/L	10.0	06/24/22 13:58	
EPA 6010C	Potassium	290	mg/L	50.0	06/24/22 13:58	
EPA 6010C	Sodium	6130	mg/L	40.0	06/24/22 14:45	
EPA 6020B	Boron	3.8	mg/L	2.5	07/13/22 18:36	
EPA 6020B	Lithium	0.12J	mg/L	0.12	07/13/22 18:36	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	98.3	mg/L	5.0	06/15/22 17:31	
SM 2320B-2011	Alkalinity, Total as CaCO3	98.3	mg/L	5.0	06/15/22 17:31	
SM 2540C-2015	Total Dissolved Solids	24100	mg/L	2500	06/11/22 11:40	
EPA 300.0 Rev 2.1 1993	Chloride	4090	mg/L	100	06/14/22 01:08	
EPA 300.0 Rev 2.1 1993	Fluoride	1.1J	mg/L	2.0	06/13/22 00:38	D3
EPA 300.0 Rev 2.1 1993	Sulfate	1250	mg/L	20.0	06/13/22 00:38	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92608869007	**T2-3HTS**					
	Performed by	CUSTOMER			06/09/22 16:01	
	pH	7.58	Std. Units		06/09/22 16:01	
EPA 6010C	Calcium	230	mg/L	10.0	06/24/22 14:00	
EPA 6010C	Magnesium	717	mg/L	10.0	06/24/22 14:00	
EPA 6010C	Potassium	263	mg/L	50.0	06/24/22 14:00	
EPA 6010C	Sodium	5530	mg/L	40.0	06/24/22 14:50	
EPA 6020B	Boron	3.5	mg/L	2.5	07/13/22 18:40	
EPA 6020B	Lithium	0.11J	mg/L	0.12	07/13/22 18:40	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	95.7	mg/L	5.0	06/15/22 17:40	
SM 2320B-2011	Alkalinity, Total as CaCO3	95.7	mg/L	5.0	06/15/22 17:40	
SM 2540C-2015	Total Dissolved Solids	23400	mg/L	2500	06/11/22 11:41	
EPA 300.0 Rev 2.1 1993	Chloride	3740	mg/L	100	06/14/22 01:23	M1,R1
EPA 300.0 Rev 2.1 1993	Fluoride	1.0J	mg/L	2.0	06/13/22 00:54	D3,M1
EPA 300.0 Rev 2.1 1993	Sulfate	1210	mg/L	20.0	06/13/22 00:54	M1
92608869008	**T2-4HT**					
	Performed by	CUSTOMER			06/09/22 16:01	
	pH	7.44	Std. Units		06/09/22 16:01	
EPA 6010C	Calcium	229	mg/L	10.0	06/24/22 14:02	
EPA 6010C	Magnesium	718	mg/L	10.0	06/24/22 14:02	
EPA 6010C	Potassium	262	mg/L	50.0	06/24/22 14:02	
EPA 6010C	Sodium	5460	mg/L	40.0	06/24/22 14:52	
EPA 6020B	Boron	3.3	mg/L	2.5	07/13/22 18:43	
EPA 6020B	Lithium	0.10J	mg/L	0.12	07/13/22 18:43	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	89.8	mg/L	5.0	06/15/22 17:49	
SM 2320B-2011	Alkalinity, Total as CaCO3	89.8	mg/L	5.0	06/15/22 17:49	
SM 2540C-2015	Total Dissolved Solids	21600	mg/L	2500	06/11/22 11:41	
EPA 300.0 Rev 2.1 1993	Chloride	3810	mg/L	100	06/14/22 02:11	
EPA 300.0 Rev 2.1 1993	Fluoride	1.0J	mg/L	2.0	06/13/22 02:13	D3
EPA 300.0 Rev 2.1 1993	Sulfate	1040	mg/L	20.0	06/13/22 02:13	
92608869009	**T2-4HTS**					
	Performed by	CUSTOMER			06/09/22 16:01	
	pH	7.56	Std. Units		06/09/22 16:01	
EPA 6010C	Calcium	208	mg/L	10.0	06/24/22 14:03	
EPA 6010C	Magnesium	647	mg/L	10.0	06/24/22 14:03	
EPA 6010C	Potassium	235	mg/L	50.0	06/24/22 14:03	
EPA 6010C	Sodium	4990	mg/L	40.0	06/24/22 14:53	
EPA 6020B	Boron	3.0	mg/L	2.5	07/13/22 18:47	
EPA 6020B	Lithium	0.096J	mg/L	0.12	07/13/22 18:47	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	86.6	mg/L	5.0	06/15/22 17:58	
SM 2320B-2011	Alkalinity, Total as CaCO3	86.6	mg/L	5.0	06/15/22 17:58	
SM 2540C-2015	Total Dissolved Solids	19900	mg/L	2500	06/11/22 11:41	
EPA 300.0 Rev 2.1 1993	Chloride	3700	mg/L	100	06/14/22 02:26	
EPA 300.0 Rev 2.1 1993	Fluoride	1.0J	mg/L	2.0	06/13/22 02:28	D3
EPA 300.0 Rev 2.1 1993	Sulfate	1040	mg/L	20.0	06/13/22 02:28	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92608869010	**T3-4HT**					
	Performed by	CUSTOMER			06/09/22 16:01	
	pH	7.37	Std. Units		06/09/22 16:01	
EPA 6010C	Calcium	247	mg/L	10.0	06/24/22 14:05	
EPA 6010C	Magnesium	775	mg/L	10.0	06/24/22 14:05	
EPA 6010C	Potassium	283	mg/L	50.0	06/24/22 14:05	
EPA 6010C	Sodium	5870	mg/L	40.0	06/24/22 14:55	
EPA 6020B	Boron	3.3	mg/L	2.5	07/13/22 20:36	
EPA 6020B	Lithium	0.11J	mg/L	0.12	07/13/22 20:36	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	101	mg/L	5.0	06/15/22 18:07	
SM 2320B-2011	Alkalinity, Total as CaCO3	101	mg/L	5.0	06/15/22 18:07	M1
SM 2540C-2015	Total Dissolved Solids	22800	mg/L	2500	06/11/22 11:41	
EPA 300.0 Rev 2.1 1993	Chloride	3930	mg/L	100	06/14/22 02:42	
EPA 300.0 Rev 2.1 1993	Fluoride	1.1J	mg/L	2.0	06/13/22 02:44	D3
EPA 300.0 Rev 2.1 1993	Sulfate	1240	mg/L	20.0	06/13/22 02:44	
92608869011	**T3-4HTS**					
	Performed by	CUSTOMER			06/09/22 16:02	
	pH	7.51	Std. Units		06/09/22 16:02	
EPA 6010C	Calcium	171	mg/L	10.0	06/24/22 14:10	
EPA 6010C	Magnesium	521	mg/L	10.0	06/24/22 14:10	
EPA 6010C	Potassium	187	mg/L	50.0	06/24/22 14:10	
EPA 6010C	Sodium	4080	mg/L	40.0	06/24/22 14:57	
EPA 6020B	Boron	2.4J	mg/L	2.5	07/13/22 20:40	
EPA 6020B	Lithium	0.079J	mg/L	0.12	07/13/22 20:40	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	73.1	mg/L	5.0	06/15/22 18:33	
SM 2320B-2011	Alkalinity, Total as CaCO3	73.1	mg/L	5.0	06/15/22 18:33	
SM 2540C-2015	Total Dissolved Solids	16900	mg/L	2500	06/11/22 11:41	
EPA 300.0 Rev 2.1 1993	Chloride	2660	mg/L	100	06/14/22 03:30	
EPA 300.0 Rev 2.1 1993	Sulfate	861	mg/L	20.0	06/13/22 03:00	
92608869012	**T4-1HB**					
	Performed by	CUSTOMER			06/09/22 16:02	
	pH	7.34	Std. Units		06/09/22 16:02	
EPA 6010C	Calcium	245	mg/L	10.0	06/24/22 14:12	
EPA 6010C	Magnesium	770	mg/L	10.0	06/24/22 14:12	
EPA 6010C	Potassium	280	mg/L	50.0	06/24/22 14:12	
EPA 6010C	Sodium	5830	mg/L	40.0	06/24/22 14:59	
EPA 6020B	Boron	3.5	mg/L	2.5	07/13/22 20:43	
EPA 6020B	Lithium	0.11J	mg/L	0.12	07/13/22 20:43	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	96.6	mg/L	5.0	06/15/22 18:41	
SM 2320B-2011	Alkalinity, Total as CaCO3	96.6	mg/L	5.0	06/15/22 18:41	
SM 2540C-2015	Total Dissolved Solids	22900	mg/L	2500	06/11/22 11:41	
EPA 300.0 Rev 2.1 1993	Chloride	3930	mg/L	100	06/14/22 04:06	
EPA 300.0 Rev 2.1 1993	Fluoride	1.1J	mg/L	2.0	06/13/22 03:36	D3
EPA 300.0 Rev 2.1 1993	Sulfate	1250	mg/L	20.0	06/13/22 03:36	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92608869013	**T4-1HS**					
	Performed by	CUSTOMER			06/09/22 16:02	
	pH	7.03	Std. Units		06/09/22 16:02	
EPA 6010C	Calcium	241	mg/L	10.0	06/24/22 14:13	
EPA 6010C	Magnesium	760	mg/L	10.0	06/24/22 14:13	
EPA 6010C	Potassium	279	mg/L	50.0	06/24/22 14:13	
EPA 6010C	Sodium	5790	mg/L	40.0	06/24/22 15:01	
EPA 6020B	Boron	3.5	mg/L	2.5	07/13/22 20:47	
EPA 6020B	Lithium	0.11J	mg/L	0.12	07/13/22 20:47	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	98.9	mg/L	5.0	06/15/22 19:00	
SM 2320B-2011	Alkalinity, Total as CaCO3	98.9	mg/L	5.0	06/15/22 19:00	
SM 2540C-2015	Total Dissolved Solids	18900	mg/L	2500	06/11/22 11:41	
EPA 300.0 Rev 2.1 1993	Chloride	4040	mg/L	100	06/14/22 04:22	
EPA 300.0 Rev 2.1 1993	Fluoride	1.1J	mg/L	2.0	06/13/22 03:52	D3
EPA 300.0 Rev 2.1 1993	Sulfate	1240	mg/L	20.0	06/13/22 03:52	
92608869014	**T4-2HB**					
	Performed by	CUSTOMER			06/09/22 16:02	
	pH	7.38	Std. Units		06/09/22 16:02	
EPA 6010C	Calcium	251	mg/L	10.0	06/24/22 14:15	
EPA 6010C	Magnesium	787	mg/L	10.0	06/24/22 14:15	
EPA 6010C	Potassium	287	mg/L	50.0	06/24/22 14:15	
EPA 6010C	Sodium	6000	mg/L	40.0	06/24/22 15:03	
EPA 6020B	Boron	3.7	mg/L	2.5	07/13/22 20:51	
EPA 6020B	Lithium	0.11J	mg/L	0.12	07/13/22 20:51	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	99.8	mg/L	5.0	06/15/22 19:09	
SM 2320B-2011	Alkalinity, Total as CaCO3	99.8	mg/L	5.0	06/15/22 19:09	
SM 2540C-2015	Total Dissolved Solids	23100	mg/L	2500	06/11/22 11:42	
EPA 300.0 Rev 2.1 1993	Chloride	4140	mg/L	100	06/14/22 04:37	
EPA 300.0 Rev 2.1 1993	Fluoride	1.1J	mg/L	2.0	06/13/22 04:08	D3
EPA 300.0 Rev 2.1 1993	Sulfate	1300	mg/L	20.0	06/13/22 04:08	
92608869015	**T4-2HS**					
	Performed by	CUSTOMER			06/09/22 16:02	
	pH	7.49	Std. Units		06/09/22 16:02	
EPA 6010C	Calcium	236	mg/L	10.0	06/24/22 14:17	
EPA 6010C	Magnesium	741	mg/L	10.0	06/24/22 14:17	
EPA 6010C	Potassium	272	mg/L	50.0	06/24/22 14:17	
EPA 6010C	Sodium	5670	mg/L	40.0	06/24/22 15:04	
EPA 6020B	Boron	3.4	mg/L	2.5	07/13/22 21:06	
EPA 6020B	Lithium	0.11J	mg/L	0.12	07/13/22 21:06	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	99.6	mg/L	5.0	06/15/22 19:19	
SM 2320B-2011	Alkalinity, Total as CaCO3	99.6	mg/L	5.0	06/15/22 19:19	
SM 2540C-2015	Total Dissolved Solids	21400	mg/L	2500	06/11/22 11:42	
EPA 300.0 Rev 2.1 1993	Chloride	3860	mg/L	100	06/14/22 04:53	
EPA 300.0 Rev 2.1 1993	Fluoride	1.1J	mg/L	2.0	06/13/22 04:23	D3
EPA 300.0 Rev 2.1 1993	Sulfate	1210	mg/L	20.0	06/13/22 04:23	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92608869016	**T4-3HB**					
	Performed by	CUSTOMER			06/09/22 16:03	
	pH	7.33	Std. Units		06/09/22 16:03	
EPA 6010C	Calcium	249	mg/L	10.0	06/24/22 14:18	
EPA 6010C	Magnesium	787	mg/L	10.0	06/24/22 14:18	
EPA 6010C	Potassium	285	mg/L	50.0	06/24/22 14:18	
EPA 6010C	Sodium	6020	mg/L	40.0	06/24/22 15:06	
EPA 6020B	Boron	3.5	mg/L	2.5	07/13/22 21:10	
EPA 6020B	Lithium	0.11J	mg/L	0.12	07/13/22 21:10	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	105	mg/L	5.0	06/15/22 19:29	
SM 2320B-2011	Alkalinity, Total as CaCO3	105	mg/L	5.0	06/15/22 19:29	
SM 2540C-2015	Total Dissolved Solids	24700	mg/L	2500	06/11/22 11:42	
EPA 300.0 Rev 2.1 1993	Chloride	4080	mg/L	100	06/14/22 05:09	
EPA 300.0 Rev 2.1 1993	Fluoride	1.1J	mg/L	2.0	06/13/22 04:39	D3
EPA 300.0 Rev 2.1 1993	Sulfate	1360	mg/L	20.0	06/13/22 04:39	
92608869017	**T4-3HS**					
	Performed by	CUSTOMER			06/09/22 16:03	
	pH	7.51	Std. Units		06/09/22 16:03	
EPA 6010C	Calcium	242	mg/L	10.0	06/24/22 14:20	
EPA 6010C	Magnesium	761	mg/L	10.0	06/24/22 14:20	
EPA 6010C	Potassium	279	mg/L	50.0	06/24/22 14:20	
EPA 6010C	Sodium	5880	mg/L	40.0	06/24/22 15:14	
EPA 6020B	Boron	3.4	mg/L	2.5	07/13/22 21:18	
EPA 6020B	Lithium	0.10J	mg/L	0.12	07/13/22 21:18	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	97.5	mg/L	5.0	06/15/22 19:39	
SM 2320B-2011	Alkalinity, Total as CaCO3	97.5	mg/L	5.0	06/15/22 19:39	
SM 2540C-2015	Total Dissolved Solids	20800	mg/L	2500	06/11/22 11:42	
EPA 300.0 Rev 2.1 1993	Chloride	8700	mg/L	100	06/14/22 20:24	
EPA 300.0 Rev 2.1 1993	Sulfate	1160	mg/L	100	06/14/22 20:24	
92608869018	**T4-4HB**					
	Performed by	CUSTOMER			06/09/22 16:03	
	pH	7.49	Std. Units		06/09/22 16:03	
EPA 6010C	Calcium	263	mg/L	10.0	06/24/22 14:22	
EPA 6010C	Magnesium	829	mg/L	10.0	06/24/22 14:22	
EPA 6010C	Potassium	305	mg/L	50.0	06/24/22 14:22	
EPA 6010C	Sodium	6340	mg/L	40.0	06/24/22 15:15	
EPA 6020B	Boron	3.8	mg/L	2.5	07/13/22 21:22	
EPA 6020B	Lithium	0.12J	mg/L	0.12	07/13/22 21:22	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	106	mg/L	5.0	06/15/22 19:48	
SM 2320B-2011	Alkalinity, Total as CaCO3	106	mg/L	5.0	06/15/22 19:48	
SM 2540C-2015	Total Dissolved Solids	25000	mg/L	2500	06/11/22 11:42	
EPA 300.0 Rev 2.1 1993	Chloride	9750	mg/L	100	06/14/22 20:39	
EPA 300.0 Rev 2.1 1993	Sulfate	1300	mg/L	100	06/14/22 20:39	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92608869019	**T4-4HS**					
	Performed by	CUSTOMER			06/09/22 16:04	
	pH	7.53	Std. Units		06/09/22 16:04	
EPA 6010C	Calcium	248	mg/L	10.0	06/24/22 14:23	
EPA 6010C	Magnesium	782	mg/L	10.0	06/24/22 14:23	
EPA 6010C	Potassium	284	mg/L	50.0	06/24/22 14:23	
EPA 6010C	Sodium	5980	mg/L	40.0	06/24/22 15:17	
EPA 6020B	Boron	3.4	mg/L	2.5	07/13/22 21:57	
EPA 6020B	Lithium	0.11J	mg/L	0.12	07/13/22 21:57	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	101	mg/L	5.0	06/15/22 19:58	
SM 2320B-2011	Alkalinity, Total as CaCO3	101	mg/L	5.0	06/15/22 19:58	
SM 2540C-2015	Total Dissolved Solids	22000	mg/L	2500	06/11/22 11:43	
EPA 300.0 Rev 2.1 1993	Chloride	9120	mg/L	100	06/14/22 20:55	
EPA 300.0 Rev 2.1 1993	Sulfate	1190	mg/L	100	06/14/22 20:55	
92608869020	**BG-1LT**					
	Performed by	CUSTOMER			06/09/22 16:04	
	pH	6.58	Std. Units		06/09/22 16:04	
EPA 6010C	Calcium	222	mg/L	10.0	06/24/22 14:25	
EPA 6010C	Magnesium	690	mg/L	10.0	06/24/22 14:25	
EPA 6010C	Potassium	252	mg/L	50.0	06/24/22 14:25	
EPA 6010C	Sodium	5370	mg/L	40.0	06/24/22 15:19	
EPA 6020B	Boron	2.9	mg/L	2.5	07/13/22 22:00	
EPA 6020B	Lithium	0.097J	mg/L	0.12	07/13/22 22:00	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	99.2	mg/L	5.0	06/16/22 11:56	
SM 2320B-2011	Alkalinity, Total as CaCO3	99.2	mg/L	5.0	06/16/22 11:56	
SM 2540C-2015	Total Dissolved Solids	23000	mg/L	2500	06/13/22 12:03	
EPA 300.0 Rev 2.1 1993	Chloride	7920	mg/L	100	06/14/22 21:11	
EPA 300.0 Rev 2.1 1993	Sulfate	1040	mg/L	100	06/14/22 21:11	
92608869021	**BG-2HT**					
	Performed by	CUSTOMER			06/09/22 16:04	
	pH	7.51	Std. Units		06/09/22 16:04	
EPA 6010C	Calcium	284	mg/L	10.0	06/24/22 15:25	
EPA 6010C	Magnesium	890	mg/L	10.0	06/24/22 15:25	
EPA 6010C	Potassium	330	mg/L	50.0	06/24/22 15:25	
EPA 6010C	Sodium	6990	mg/L	100	06/24/22 15:48	P6
EPA 6020B	Boron	3.6	mg/L	2.5	07/13/22 23:41	M1
EPA 6020B	Lithium	0.11J	mg/L	0.12	07/13/22 23:41	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	118	mg/L	5.0	06/16/22 10:42	
SM 2320B-2011	Alkalinity, Total as CaCO3	118	mg/L	5.0	06/16/22 10:42	
SM 2540C-2015	Total Dissolved Solids	26000	mg/L	2500	06/11/22 11:43	
EPA 300.0 Rev 2.1 1993	Chloride	10200	mg/L	200	06/15/22 00:43	
EPA 300.0 Rev 2.1 1993	Sulfate	1370	mg/L	100	06/14/22 21:26	
92608869022	**DUP-1**					
EPA 6010C	Calcium	243	mg/L	10.0	06/24/22 15:37	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92608869022	**DUP-1**					
EPA 6010C	Magnesium	763	mg/L	10.0	06/24/22 15:37	
EPA 6010C	Potassium	280	mg/L	50.0	06/24/22 15:37	
EPA 6010C	Sodium	5830	mg/L	40.0	06/24/22 16:00	
EPA 6020B	Boron	3.2	mg/L	2.5	07/13/22 22:55	
EPA 6020B	Lithium	0.10J	mg/L	0.12	07/13/22 22:55	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	104	mg/L	5.0	06/16/22 11:08	
SM 2320B-2011	Alkalinity, Total as CaCO3	104	mg/L	5.0	06/16/22 11:08	
SM 2540C-2015	Total Dissolved Solids	23500	mg/L	2500	06/11/22 11:43	
EPA 300.0 Rev 2.1 1993	Chloride	8940	mg/L	100	06/14/22 06:38	
EPA 300.0 Rev 2.1 1993	Fluoride	5.8J	mg/L	10.0	06/14/22 06:38	D3
EPA 300.0 Rev 2.1 1993	Sulfate	1190	mg/L	100	06/14/22 06:38	
92608869023	**DUP-2**					
EPA 6010C	Calcium	257	mg/L	10.0	06/24/22 15:39	
EPA 6010C	Magnesium	810	mg/L	10.0	06/24/22 15:39	
EPA 6010C	Potassium	293	mg/L	50.0	06/24/22 15:39	
EPA 6010C	Sodium	5950	mg/L	40.0	06/24/22 16:01	
EPA 6020B	Boron	3.3	mg/L	2.5	07/13/22 22:58	
EPA 6020B	Lithium	0.11J	mg/L	0.12	07/13/22 22:58	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	109	mg/L	5.0	06/16/22 11:17	
SM 2320B-2011	Alkalinity, Total as CaCO3	109	mg/L	5.0	06/16/22 11:17	
SM 2540C-2015	Total Dissolved Solids	25800	mg/L	2500	06/11/22 11:43	
EPA 300.0 Rev 2.1 1993	Chloride	8870	mg/L	100	06/14/22 06:53	
EPA 300.0 Rev 2.1 1993	Sulfate	1170	mg/L	100	06/14/22 06:53	
92608869024	**DUP-3**					
EPA 6010C	Calcium	207	mg/L	10.0	06/24/22 15:40	
EPA 6010C	Magnesium	639	mg/L	10.0	06/24/22 15:40	
EPA 6010C	Potassium	230	mg/L	50.0	06/24/22 15:40	
EPA 6010C	Sodium	4930	mg/L	40.0	06/24/22 16:03	
EPA 6020B	Boron	2.9	mg/L	2.5	07/13/22 23:02	
EPA 6020B	Lithium	0.090J	mg/L	0.12	07/13/22 23:02	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	94.6	mg/L	5.0	06/16/22 11:27	
SM 2320B-2011	Alkalinity, Total as CaCO3	94.6	mg/L	5.0	06/16/22 11:27	
SM 2540C-2015	Total Dissolved Solids	21800	mg/L	2500	06/11/22 11:43	
EPA 300.0 Rev 2.1 1993	Chloride	7260	mg/L	100	06/14/22 07:41	M1
EPA 300.0 Rev 2.1 1993	Sulfate	950	mg/L	100	06/14/22 07:41	M1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Sample: T1-4HT **Lab ID: 92608869001** Collected: 06/07/22 18:06 Received: 06/09/22 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		06/09/22 16:00		
pH	**7.43**	Std. Units			1		06/09/22 16:00		
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**242**	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 13:40	7440-70-2	
Magnesium	**755**	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 13:40	7439-95-4	
Potassium	**274**	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 13:40	7440-09-7	
Sodium	**5740**	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 14:30	7440-23-5	P6
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Arsenic	**0.0049J**	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 17:48	7440-38-2	
Boron	**3.4**	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 17:48	7440-42-8	M1
Lithium	**0.11J**	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 17:48	7439-93-2	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**98.8**	mg/L	5.0	5.0	1		06/15/22 16:33		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 16:33		
Alkalinity, Total as CaCO3	**98.8**	mg/L	5.0	5.0	1		06/15/22 16:33		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**22700**	mg/L	2500	2500	1		06/10/22 15:36		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**3260**	mg/L	100	60.0	100		06/13/22 22:57	16887-00-6	
Fluoride	ND	mg/L	10.0	5.0	100		06/13/22 22:57	16984-48-8	D3
Sulfate	**380**	mg/L	100	50.0	100		06/13/22 22:57	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Sample: T1-4HTS **Lab ID: 92608869002** Collected: 06/07/22 18:10 Received: 06/09/22 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		06/09/22 16:00		
pH	**7.50**	Std. Units			1		06/09/22 16:00		
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**248**	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 13:52	7440-70-2	
Magnesium	**775**	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 13:52	7439-95-4	
Potassium	**282**	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 13:52	7440-09-7	
Sodium	**5990**	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 14:38	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 18:19	7440-38-2	D3
Boron	**3.6**	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 18:19	7440-42-8	
Lithium	**0.11J**	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 18:19	7439-93-2	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**99.8**	mg/L	5.0	5.0	1		06/15/22 16:43		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 16:43		
Alkalinity, Total as CaCO3	**99.8**	mg/L	5.0	5.0	1		06/15/22 16:43		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**24500**	mg/L	2500	2500	1		06/10/22 15:36		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**4270**	mg/L	100	60.0	100		06/13/22 23:12	16887-00-6	
Fluoride	**1.1J**	mg/L	2.0	1.0	20		06/12/22 23:14	16984-48-8	D3
Sulfate	**1230**	mg/L	20.0	10.0	20		06/12/22 23:14	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Sample: T2-1HT **Lab ID: 92608869003** Collected: 06/07/22 16:54 Received: 06/09/22 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		06/09/22 16:00		
pH	**7.55**	Std. Units			1		06/09/22 16:00		
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**214**	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 13:53	7440-70-2	
Magnesium	**663**	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 13:53	7439-95-4	
Potassium	**242**	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 13:53	7440-09-7	
Sodium	**5180**	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 14:40	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 18:23	7440-38-2	D3
Boron	**3.4**	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 18:23	7440-42-8	
Lithium	**0.098J**	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 18:23	7439-93-2	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**87.5**	mg/L	5.0	5.0	1		06/15/22 16:53		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 16:53		
Alkalinity, Total as CaCO3	**87.5**	mg/L	5.0	5.0	1		06/15/22 16:53		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**21200**	mg/L	2500	2500	1		06/10/22 15:36		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**3560**	mg/L	100	60.0	100		06/13/22 23:28	16887-00-6	
Fluoride	**1.0J**	mg/L	2.0	1.0	20		06/12/22 23:30	16984-48-8	D3
Sulfate	**1050**	mg/L	20.0	10.0	20		06/12/22 23:30	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Sample: T2-2HT **Lab ID: 92608869004** Collected: 06/07/22 17:05 Received: 06/09/22 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		06/09/22 16:00		
pH	**7.40**	Std. Units			1		06/09/22 16:00		
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**244**	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 13:55	7440-70-2	
Magnesium	**762**	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 13:55	7439-95-4	
Potassium	**279**	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 13:55	7440-09-7	
Sodium	**5940**	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 14:42	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 18:27	7440-38-2	D3
Boron	**3.8**	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 18:27	7440-42-8	
Lithium	**0.11J**	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 18:27	7439-93-2	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**98.5**	mg/L	5.0	5.0	1		06/15/22 17:02		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 17:02		
Alkalinity, Total as CaCO3	**98.5**	mg/L	5.0	5.0	1		06/15/22 17:02		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**20600**	mg/L	2500	2500	1		06/10/22 15:36		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**4550**	mg/L	100	60.0	100		06/14/22 00:36	16887-00-6	
Fluoride	**1.0J**	mg/L	2.0	1.0	20		06/13/22 00:06	16984-48-8	D3
Sulfate	**1210**	mg/L	20.0	10.0	20		06/13/22 00:06	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Sample: T2-2HTS **Lab ID: 92608869005** Collected: 06/07/22 17:00 Received: 06/09/22 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		06/09/22 16:00		
pH	**7.49**	Std. Units			1		06/09/22 16:00		
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**206**	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 13:57	7440-70-2	
Magnesium	**634**	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 13:57	7439-95-4	
Potassium	**232**	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 13:57	7440-09-7	
Sodium	**4990**	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 14:43	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 18:32	7440-38-2	D3
Boron	**3.1**	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 18:32	7440-42-8	
Lithium	**0.098J**	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 18:32	7439-93-2	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**83.3**	mg/L	5.0	5.0	1		06/15/22 17:22		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 17:22		
Alkalinity, Total as CaCO3	**83.3**	mg/L	5.0	5.0	1		06/15/22 17:22		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**18400**	mg/L	2500	2500	1		06/11/22 11:40		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**3430**	mg/L	100	60.0	100		06/14/22 00:52	16887-00-6	
Fluoride	**1.0J**	mg/L	2.0	1.0	20		06/13/22 00:22	16984-48-8	D3
Sulfate	**1010**	mg/L	20.0	10.0	20		06/13/22 00:22	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Sample: T2-3HT **Lab ID: 92608869006** Collected: 06/07/22 17:28 Received: 06/09/22 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		06/09/22 16:01		
pH	**7.43**	Std. Units			1		06/09/22 16:01		
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**253**	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 13:58	7440-70-2	
Magnesium	**795**	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 13:58	7439-95-4	
Potassium	**290**	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 13:58	7440-09-7	
Sodium	**6130**	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 14:45	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 18:36	7440-38-2	D3
Boron	**3.8**	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 18:36	7440-42-8	
Lithium	**0.12J**	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 18:36	7439-93-2	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**98.3**	mg/L	5.0	5.0	1		06/15/22 17:31		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 17:31		
Alkalinity, Total as CaCO3	**98.3**	mg/L	5.0	5.0	1		06/15/22 17:31		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**24100**	mg/L	2500	2500	1		06/11/22 11:40		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**4090**	mg/L	100	60.0	100		06/14/22 01:08	16887-00-6	
Fluoride	**1.1J**	mg/L	2.0	1.0	20		06/13/22 00:38	16984-48-8	D3
Sulfate	**1250**	mg/L	20.0	10.0	20		06/13/22 00:38	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Sample: T2-3HTS **Lab ID: 92608869007** Collected: 06/07/22 17:24 Received: 06/09/22 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		06/09/22 16:01		
pH	**7.58**	Std. Units			1		06/09/22 16:01		
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**230**	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 14:00	7440-70-2	
Magnesium	**717**	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 14:00	7439-95-4	
Potassium	**263**	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 14:00	7440-09-7	
Sodium	**5530**	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 14:50	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 18:40	7440-38-2	D3
Boron	**3.5**	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 18:40	7440-42-8	
Lithium	**0.11J**	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 18:40	7439-93-2	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**95.7**	mg/L	5.0	5.0	1		06/15/22 17:40		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 17:40		
Alkalinity, Total as CaCO3	**95.7**	mg/L	5.0	5.0	1		06/15/22 17:40		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**23400**	mg/L	2500	2500	1		06/11/22 11:41		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**3740**	mg/L	100	60.0	100		06/14/22 01:23	16887-00-6	M1,R1
Fluoride	**1.0J**	mg/L	2.0	1.0	20		06/13/22 00:54	16984-48-8	D3,M1
Sulfate	**1210**	mg/L	20.0	10.0	20		06/13/22 00:54	14808-79-8	M1

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Sample: T2-4HT **Lab ID: 92608869008** Collected: 06/07/22 17:45 Received: 06/09/22 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		06/09/22 16:01		
pH	**7.44**	Std. Units			1		06/09/22 16:01		
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**229**	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 14:02	7440-70-2	
Magnesium	**718**	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 14:02	7439-95-4	
Potassium	**262**	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 14:02	7440-09-7	
Sodium	**5460**	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 14:52	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 18:43	7440-38-2	D3
Boron	**3.3**	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 18:43	7440-42-8	
Lithium	**0.10J**	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 18:43	7439-93-2	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**89.8**	mg/L	5.0	5.0	1		06/15/22 17:49		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 17:49		
Alkalinity, Total as CaCO3	**89.8**	mg/L	5.0	5.0	1		06/15/22 17:49		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**21600**	mg/L	2500	2500	1		06/11/22 11:41		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**3810**	mg/L	100	60.0	100		06/14/22 02:11	16887-00-6	
Fluoride	**1.0J**	mg/L	2.0	1.0	20		06/13/22 02:13	16984-48-8	D3
Sulfate	**1040**	mg/L	20.0	10.0	20		06/13/22 02:13	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Sample: T2-4HTS **Lab ID: 92608869009** Collected: 06/07/22 17:40 Received: 06/09/22 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		06/09/22 16:01		
pH	**7.56**	Std. Units			1		06/09/22 16:01		
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**208**	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 14:03	7440-70-2	
Magnesium	**647**	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 14:03	7439-95-4	
Potassium	**235**	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 14:03	7440-09-7	
Sodium	**4990**	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 14:53	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 18:47	7440-38-2	D3
Boron	**3.0**	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 18:47	7440-42-8	
Lithium	**0.096J**	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 18:47	7439-93-2	D3
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**86.6**	mg/L	5.0	5.0	1		06/15/22 17:58		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 17:58		
Alkalinity, Total as CaCO3	**86.6**	mg/L	5.0	5.0	1		06/15/22 17:58		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**19900**	mg/L	2500	2500	1		06/11/22 11:41		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**3700**	mg/L	100	60.0	100		06/14/22 02:26	16887-00-6	
Fluoride	**1.0J**	mg/L	2.0	1.0	20		06/13/22 02:28	16984-48-8	D3
Sulfate	**1040**	mg/L	20.0	10.0	20		06/13/22 02:28	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Sample: T3-4HT **Lab ID: 92608869010** Collected: 06/07/22 17:57 Received: 06/09/22 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		06/09/22 16:01		
pH	**7.37**	Std. Units			1		06/09/22 16:01		
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**247**	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 14:05	7440-70-2	
Magnesium	**775**	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 14:05	7439-95-4	
Potassium	**283**	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 14:05	7440-09-7	
Sodium	**5870**	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 14:55	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 20:36	7440-38-2	D3
Boron	**3.3**	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 20:36	7440-42-8	
Lithium	**0.11J**	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 20:36	7439-93-2	D3
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**101**	mg/L	5.0	5.0	1		06/15/22 18:07		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 18:07		
Alkalinity, Total as CaCO3	**101**	mg/L	5.0	5.0	1		06/15/22 18:07		M1
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**22800**	mg/L	2500	2500	1		06/11/22 11:41		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**3930**	mg/L	100	60.0	100		06/14/22 02:42	16887-00-6	
Fluoride	**1.1J**	mg/L	2.0	1.0	20		06/13/22 02:44	16984-48-8	D3
Sulfate	**1240**	mg/L	20.0	10.0	20		06/13/22 02:44	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Sample: T3-4HTS **Lab ID: 92608869011** Collected: 06/07/22 17:53 Received: 06/09/22 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		06/09/22 16:02		
pH	**7.51**	Std. Units			1		06/09/22 16:02		
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**171**	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 14:10	7440-70-2	
Magnesium	**521**	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 14:10	7439-95-4	
Potassium	**187**	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 14:10	7440-09-7	
Sodium	**4080**	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 14:57	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 20:40	7440-38-2	D3
Boron	**2.4J**	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 20:40	7440-42-8	
Lithium	**0.079J**	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 20:40	7439-93-2	D3
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**73.1**	mg/L	5.0	5.0	1		06/15/22 18:33		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 18:33		
Alkalinity, Total as CaCO3	**73.1**	mg/L	5.0	5.0	1		06/15/22 18:33		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**16900**	mg/L	2500	2500	1		06/11/22 11:41		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**2660**	mg/L	100	60.0	100		06/14/22 03:30	16887-00-6	
Fluoride	ND	mg/L	2.0	1.0	20		06/13/22 03:00	16984-48-8	D3
Sulfate	**861**	mg/L	20.0	10.0	20		06/13/22 03:00	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Sample: T4-1HB **Lab ID: 92608869012** Collected: 06/07/22 14:54 Received: 06/09/22 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		06/09/22 16:02		
pH	**7.34**	Std. Units			1		06/09/22 16:02		
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**245**	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 14:12	7440-70-2	
Magnesium	**770**	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 14:12	7439-95-4	
Potassium	**280**	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 14:12	7440-09-7	
Sodium	**5830**	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 14:59	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 20:43	7440-38-2	D3
Boron	**3.5**	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 20:43	7440-42-8	
Lithium	**0.11J**	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 20:43	7439-93-2	D3
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**96.6**	mg/L	5.0	5.0	1		06/15/22 18:41		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 18:41		
Alkalinity, Total as CaCO3	**96.6**	mg/L	5.0	5.0	1		06/15/22 18:41		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**22900**	mg/L	2500	2500	1		06/11/22 11:41		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**3930**	mg/L	100	60.0	100		06/14/22 04:06	16887-00-6	
Fluoride	**1.1J**	mg/L	2.0	1.0	20		06/13/22 03:36	16984-48-8	D3
Sulfate	**1250**	mg/L	20.0	10.0	20		06/13/22 03:36	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Sample: T4-1HS **Lab ID: 92608869013** Collected: 06/07/22 14:45 Received: 06/09/22 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		06/09/22 16:02		
pH	**7.03**	Std. Units			1		06/09/22 16:02		
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**241**	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 14:13	7440-70-2	
Magnesium	**760**	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 14:13	7439-95-4	
Potassium	**279**	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 14:13	7440-09-7	
Sodium	**5790**	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 15:01	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 20:47	7440-38-2	D3
Boron	**3.5**	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 20:47	7440-42-8	
Lithium	**0.11J**	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 20:47	7439-93-2	D3
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**98.9**	mg/L	5.0	5.0	1		06/15/22 19:00		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 19:00		
Alkalinity, Total as CaCO3	**98.9**	mg/L	5.0	5.0	1		06/15/22 19:00		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**18900**	mg/L	2500	2500	1		06/11/22 11:41		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**4040**	mg/L	100	60.0	100		06/14/22 04:22	16887-00-6	
Fluoride	**1.1J**	mg/L	2.0	1.0	20		06/13/22 03:52	16984-48-8	D3
Sulfate	**1240**	mg/L	20.0	10.0	20		06/13/22 03:52	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Sample: T4-2HB **Lab ID: 92608869014** Collected: 06/07/22 15:16 Received: 06/09/22 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		06/09/22 16:02		
pH	**7.38**	Std. Units			1		06/09/22 16:02		
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**251**	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 14:15	7440-70-2	
Magnesium	**787**	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 14:15	7439-95-4	
Potassium	**287**	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 14:15	7440-09-7	
Sodium	**6000**	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 15:03	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 20:51	7440-38-2	D3
Boron	**3.7**	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 20:51	7440-42-8	
Lithium	**0.11J**	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 20:51	7439-93-2	D3
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**99.8**	mg/L	5.0	5.0	1		06/15/22 19:09		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 19:09		
Alkalinity, Total as CaCO3	**99.8**	mg/L	5.0	5.0	1		06/15/22 19:09		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**23100**	mg/L	2500	2500	1		06/11/22 11:42		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**4140**	mg/L	100	60.0	100		06/14/22 04:37	16887-00-6	
Fluoride	**1.1J**	mg/L	2.0	1.0	20		06/13/22 04:08	16984-48-8	D3
Sulfate	**1300**	mg/L	20.0	10.0	20		06/13/22 04:08	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Sample: T4-2HS **Lab ID: 92608869015** Collected: 06/07/22 15:09 Received: 06/09/22 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		06/09/22 16:02		
pH	**7.49**	Std. Units			1		06/09/22 16:02		
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**236**	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 14:17	7440-70-2	
Magnesium	**741**	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 14:17	7439-95-4	
Potassium	**272**	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 14:17	7440-09-7	
Sodium	**5670**	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 15:04	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 21:06	7440-38-2	D3
Boron	**3.4**	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 21:06	7440-42-8	
Lithium	**0.11J**	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 21:06	7439-93-2	D3
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**99.6**	mg/L	5.0	5.0	1		06/15/22 19:19		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 19:19		
Alkalinity, Total as CaCO3	**99.6**	mg/L	5.0	5.0	1		06/15/22 19:19		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**21400**	mg/L	2500	2500	1		06/11/22 11:42		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**3860**	mg/L	100	60.0	100		06/14/22 04:53	16887-00-6	
Fluoride	**1.1J**	mg/L	2.0	1.0	20		06/13/22 04:23	16984-48-8	D3
Sulfate	**1210**	mg/L	20.0	10.0	20		06/13/22 04:23	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Sample: T4-3HB **Lab ID: 92608869016** Collected: 06/07/22 15:38 Received: 06/09/22 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		06/09/22 16:03		
pH	**7.33**	Std. Units			1		06/09/22 16:03		
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**249**	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 14:18	7440-70-2	
Magnesium	**787**	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 14:18	7439-95-4	
Potassium	**285**	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 14:18	7440-09-7	
Sodium	**6020**	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 15:06	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 21:10	7440-38-2	D3
Boron	**3.5**	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 21:10	7440-42-8	
Lithium	**0.11J**	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 21:10	7439-93-2	D3
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**105**	mg/L	5.0	5.0	1		06/15/22 19:29		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 19:29		
Alkalinity, Total as CaCO3	**105**	mg/L	5.0	5.0	1		06/15/22 19:29		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**24700**	mg/L	2500	2500	1		06/11/22 11:42		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**4080**	mg/L	100	60.0	100		06/14/22 05:09	16887-00-6	
Fluoride	**1.1J**	mg/L	2.0	1.0	20		06/13/22 04:39	16984-48-8	D3
Sulfate	**1360**	mg/L	20.0	10.0	20		06/13/22 04:39	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Sample: T4-3HS **Lab ID: 92608869017** Collected: 06/07/22 15:30 Received: 06/09/22 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		06/09/22 16:03		
pH	**7.51**	Std. Units			1		06/09/22 16:03		
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**242**	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 14:20	7440-70-2	
Magnesium	**761**	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 14:20	7439-95-4	
Potassium	**279**	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 14:20	7440-09-7	
Sodium	**5880**	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 15:14	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 21:18	7440-38-2	D3
Boron	**3.4**	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 21:18	7440-42-8	
Lithium	**0.10J**	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 21:18	7439-93-2	D3
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**97.5**	mg/L	5.0	5.0	1		06/15/22 19:39		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 19:39		
Alkalinity, Total as CaCO3	**97.5**	mg/L	5.0	5.0	1		06/15/22 19:39		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**20800**	mg/L	2500	2500	1		06/11/22 11:42		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**8700**	mg/L	100	60.0	100		06/14/22 20:24	16887-00-6	
Fluoride	ND	mg/L	10.0	5.0	100		06/14/22 20:24	16984-48-8	D3
Sulfate	**1160**	mg/L	100	50.0	100		06/14/22 20:24	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Sample: T4-4HB **Lab ID: 92608869018** Collected: 06/07/22 15:57 Received: 06/09/22 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		06/09/22 16:03		
pH	**7.49**	Std. Units			1		06/09/22 16:03		
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**263**	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 14:22	7440-70-2	
Magnesium	**829**	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 14:22	7439-95-4	
Potassium	**305**	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 14:22	7440-09-7	
Sodium	**6340**	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 15:15	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 21:22	7440-38-2	D3
Boron	**3.8**	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 21:22	7440-42-8	
Lithium	**0.12J**	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 21:22	7439-93-2	D3
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**106**	mg/L	5.0	5.0	1		06/15/22 19:48		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 19:48		
Alkalinity, Total as CaCO3	**106**	mg/L	5.0	5.0	1		06/15/22 19:48		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**25000**	mg/L	2500	2500	1		06/11/22 11:42		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**9750**	mg/L	100	60.0	100		06/14/22 20:39	16887-00-6	
Fluoride	ND	mg/L	10.0	5.0	100		06/14/22 20:39	16984-48-8	D3
Sulfate	**1300**	mg/L	100	50.0	100		06/14/22 20:39	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Sample: T4-4HS **Lab ID: 92608869019** Collected: 06/07/22 15:52 Received: 06/09/22 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		06/09/22 16:04		
pH	**7.53**	Std. Units			1		06/09/22 16:04		
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**248**	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 14:23	7440-70-2	
Magnesium	**782**	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 14:23	7439-95-4	
Potassium	**284**	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 14:23	7440-09-7	
Sodium	**5980**	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 15:17	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 21:57	7440-38-2	D3
Boron	**3.4**	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 21:57	7440-42-8	
Lithium	**0.11J**	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 21:57	7439-93-2	D3
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**101**	mg/L	5.0	5.0	1		06/15/22 19:58		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 19:58		
Alkalinity, Total as CaCO3	**101**	mg/L	5.0	5.0	1		06/15/22 19:58		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**22000**	mg/L	2500	2500	1		06/11/22 11:43		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**9120**	mg/L	100	60.0	100		06/14/22 20:55	16887-00-6	
Fluoride	ND	mg/L	10.0	5.0	100		06/14/22 20:55	16984-48-8	D3
Sulfate	**1190**	mg/L	100	50.0	100		06/14/22 20:55	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Sample: BG-1LT **Lab ID: 92608869020** Collected: 06/08/22 10:20 Received: 06/09/22 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		06/09/22 16:04		
pH	**6.58**	Std. Units			1		06/09/22 16:04		
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**222**	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 14:25	7440-70-2	
Magnesium	**690**	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 14:25	7439-95-4	
Potassium	**252**	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 14:25	7440-09-7	
Sodium	**5370**	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 15:19	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 22:00	7440-38-2	D3
Boron	**2.9**	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 22:00	7440-42-8	
Lithium	**0.097J**	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 22:00	7439-93-2	D3
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**99.2**	mg/L	5.0	5.0	1		06/16/22 11:56		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/16/22 11:56		
Alkalinity, Total as CaCO3	**99.2**	mg/L	5.0	5.0	1		06/16/22 11:56		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**23000**	mg/L	2500	2500	1		06/13/22 12:03		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**7920**	mg/L	100	60.0	100		06/14/22 21:11	16887-00-6	
Fluoride	ND	mg/L	10.0	5.0	100		06/14/22 21:11	16984-48-8	D3
Sulfate	**1040**	mg/L	100	50.0	100		06/14/22 21:11	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(770)734-4200

ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Sample: BG-2HT **Lab ID: 92608869021** Collected: 06/07/22 16:20 Received: 06/09/22 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		06/09/22 16:04		
pH	**7.51**	Std. Units			1		06/09/22 16:04		
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**284**	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 15:25	7440-70-2	
Magnesium	**890**	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 15:25	7439-95-4	
Potassium	**330**	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 15:25	7440-09-7	
Sodium	**6990**	mg/L	100	6.6	5	06/23/22 05:41	06/24/22 15:48	7440-23-5	P6
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 23:41	7440-38-2	D3
Boron	**3.6**	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 23:41	7440-42-8	M1
Lithium	**0.11J**	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 23:41	7439-93-2	D3
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**118**	mg/L	5.0	5.0	1		06/16/22 10:42		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/16/22 10:42		
Alkalinity, Total as CaCO3	**118**	mg/L	5.0	5.0	1		06/16/22 10:42		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**26000**	mg/L	2500	2500	1		06/11/22 11:43		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**10200**	mg/L	200	120	200		06/15/22 00:43	16887-00-6	
Fluoride	ND	mg/L	10.0	5.0	100		06/14/22 21:26	16984-48-8	D3
Sulfate	**1370**	mg/L	100	50.0	100		06/14/22 21:26	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Sample: DUP-1 **Lab ID: 92608869022** Collected: 06/07/22 00:00 Received: 06/09/22 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**243**	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 15:37	7440-70-2	
Magnesium	**763**	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 15:37	7439-95-4	
Potassium	**280**	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 15:37	7440-09-7	
Sodium	**5830**	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 16:00	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 22:55	7440-38-2	D3
Boron	**3.2**	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 22:55	7440-42-8	
Lithium	**0.10J**	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 22:55	7439-93-2	D3
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**104**	mg/L	5.0	5.0	1		06/16/22 11:08		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/16/22 11:08		
Alkalinity, Total as CaCO3	**104**	mg/L	5.0	5.0	1		06/16/22 11:08		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**23500**	mg/L	2500	2500	1		06/11/22 11:43		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**8940**	mg/L	100	60.0	100		06/14/22 06:38	16887-00-6	
Fluoride	**5.8J**	mg/L	10.0	5.0	100		06/14/22 06:38	16984-48-8	D3
Sulfate	**1190**	mg/L	100	50.0	100		06/14/22 06:38	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Sample: DUP-2 **Lab ID: 92608869023** Collected: 06/07/22 00:00 Received: 06/09/22 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**257**	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 15:39	7440-70-2	
Magnesium	**810**	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 15:39	7439-95-4	
Potassium	**293**	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 15:39	7440-09-7	
Sodium	**5950**	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 16:01	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 22:58	7440-38-2	D3
Boron	**3.3**	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 22:58	7440-42-8	
Lithium	**0.11J**	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 22:58	7439-93-2	D3
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**109**	mg/L	5.0	5.0	1		06/16/22 11:17		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/16/22 11:17		
Alkalinity, Total as CaCO3	**109**	mg/L	5.0	5.0	1		06/16/22 11:17		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**25800**	mg/L	2500	2500	1		06/11/22 11:43		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**8870**	mg/L	100	60.0	100		06/14/22 06:53	16887-00-6	
Fluoride	ND	mg/L	10.0	5.0	100		06/14/22 06:53	16984-48-8	D3
Sulfate	**1170**	mg/L	100	50.0	100		06/14/22 06:53	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Sample: DUP-3 **Lab ID: 92608869024** Collected: 06/07/22 00:00 Received: 06/09/22 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**207**	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 15:40	7440-70-2	
Magnesium	**639**	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 15:40	7439-95-4	
Potassium	**230**	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 15:40	7440-09-7	
Sodium	**4930**	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 16:03	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 23:02	7440-38-2	D3
Boron	**2.9**	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 23:02	7440-42-8	
Lithium	**0.090J**	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 23:02	7439-93-2	D3
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**94.6**	mg/L	5.0	5.0	1		06/16/22 11:27		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/16/22 11:27		
Alkalinity, Total as CaCO3	**94.6**	mg/L	5.0	5.0	1		06/16/22 11:27		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**21800**	mg/L	2500	2500	1		06/11/22 11:43		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**7260**	mg/L	100	60.0	100		06/14/22 07:41	16887-00-6	M1
Fluoride	ND	mg/L	10.0	5.0	100		06/14/22 07:41	16984-48-8	D3,M1
Sulfate	**950**	mg/L	100	50.0	100		06/14/22 07:41	14808-79-8	M1

REPORT OF LABORATORY ANALYSIS

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110 Technology Parkway
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ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Sample: FB-1 **Lab ID: 92608869025** Collected: 06/08/22 08:55 Received: 06/09/22 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	ND	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 15:42	7440-70-2	
Magnesium	ND	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 15:42	7439-95-4	
Potassium	ND	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 15:42	7440-09-7	
Sodium	ND	mg/L	20.0	1.3	1	06/23/22 05:41	06/24/22 15:42	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Arsenic	ND	mg/L	0.0010	0.000087	1	06/18/22 16:52	06/19/22 18:25	7440-38-2	
Boron	ND	mg/L	0.050	0.0085	1	06/18/22 16:52	06/19/22 18:25	7440-42-8	
Lithium	ND	mg/L	0.0025	0.00050	1	06/18/22 16:52	06/19/22 18:25	7439-93-2	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/16/22 12:05		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/16/22 12:05		
Alkalinity, Total as CaCO3	ND	mg/L	5.0	5.0	1		06/16/22 12:05		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	ND	mg/L	25.0	25.0	1		06/13/22 12:03		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		06/14/22 08:28	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		06/14/22 08:28	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		06/14/22 08:28	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Sample: EB-1 **Lab ID: 92608869026** Collected: 06/08/22 09:00 Received: 06/09/22 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	ND	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 15:44	7440-70-2	
Magnesium	ND	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 15:44	7439-95-4	
Potassium	ND	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 15:44	7440-09-7	
Sodium	ND	mg/L	20.0	1.3	1	06/23/22 05:41	06/24/22 15:44	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Arsenic	ND	mg/L	0.0010	0.000087	1	06/21/22 12:15	06/21/22 21:22	7440-38-2	
Boron	ND	mg/L	0.050	0.0085	1	06/21/22 12:15	06/21/22 21:22	7440-42-8	
Lithium	ND	mg/L	0.0025	0.00050	1	06/21/22 12:15	06/21/22 21:22	7439-93-2	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/16/22 12:10		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/16/22 12:10		
Alkalinity, Total as CaCO3	ND	mg/L	5.0	5.0	1		06/16/22 12:10		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	ND	mg/L	25.0	25.0	1		06/13/22 12:03		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		06/14/22 08:44	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		06/14/22 08:44	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		06/14/22 08:44	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

QC Batch: 823415
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010C
Analysis Description: 6010C Water
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 92608869001, 92608869002, 92608869003, 92608869004, 92608869005, 92608869006, 92608869007, 92608869008, 92608869009, 92608869010, 92608869011, 92608869012, 92608869013, 92608869014, 92608869015, 92608869016, 92608869017, 92608869018, 92608869019, 92608869020

METHOD BLANK: 4362950 Matrix: Water
Associated Lab Samples: 92608869001, 92608869002, 92608869003, 92608869004, 92608869005, 92608869006, 92608869007, 92608869008, 92608869009, 92608869010, 92608869011, 92608869012, 92608869013, 92608869014, 92608869015, 92608869016, 92608869017, 92608869018, 92608869019, 92608869020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	0.50	0.023	06/24/22 13:36	
Magnesium	mg/L	ND	0.50	0.0078	06/24/22 13:36	
Potassium	mg/L	ND	2.5	0.087	06/24/22 13:36	
Sodium	mg/L	ND	1.0	0.066	06/24/22 13:36	

LABORATORY CONTROL SAMPLE: 4362951

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	20	18.9	95	80-120	
Magnesium	mg/L	20	19.1	95	80-120	
Potassium	mg/L	20	18.9	95	80-120	
Sodium	mg/L	20	18.7	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4362952 4362953

Parameter	Units	92608869001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	242	400	400	612	611	92	92	75-125	0	20	
Magnesium	mg/L	755	400	400	1110	1110	90	89	75-125	0	20	
Potassium	mg/L	274	400	400	694	691	105	104	75-125	0	20	
Sodium	mg/L	5740	400	400	6110	6030	93	74	75-125	1	20	P6

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

QC Batch: 823416
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010C
Analysis Description: 6010C Water
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 92608869021, 92608869022, 92608869023, 92608869024, 92608869025, 92608869026

METHOD BLANK: 4362954 Matrix: Water
Associated Lab Samples: 92608869021, 92608869022, 92608869023, 92608869024, 92608869025, 92608869026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	0.50	0.023	06/24/22 15:22	
Magnesium	mg/L	ND	0.50	0.0078	06/24/22 15:22	
Potassium	mg/L	ND	2.5	0.087	06/24/22 15:22	
Sodium	mg/L	ND	1.0	0.066	06/24/22 15:22	

LABORATORY CONTROL SAMPLE: 4362955

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	20	19.3	97	80-120	
Magnesium	mg/L	20	19.7	98	80-120	
Potassium	mg/L	20	19.4	97	80-120	
Sodium	mg/L	20	19.2	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4362956 4362957

Parameter	Units	92608869021 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	284	400	400	649	682	91	99	75-125	5	20	
Magnesium	mg/L	890	400	400	1240	1320	88	107	75-125	6	20	
Potassium	mg/L	330	400	400	743	783	103	113	75-125	5	20	
Sodium	mg/L	6990	400	400	7040	7460	14	117	75-125	6	20	P6

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

QC Batch: 705475
QC Batch Method: EPA 3010A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92608869025

METHOD BLANK: 3681135 Matrix: Water
Associated Lab Samples: 92608869025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0010	0.000087	06/19/22 18:13	
Boron	mg/L	ND	0.050	0.0085	06/19/22 18:13	
Lithium	mg/L	ND	0.0025	0.00050	06/19/22 18:13	

LABORATORY CONTROL SAMPLE: 3681136

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.05	0.050	100	80-120	
Boron	mg/L	0.05	0.051	102	80-120	
Lithium	mg/L	0.05	0.050	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3681137 3681138

Parameter	Units	92606866011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	ND	0.05	0.05	0.050	0.050	101	101	75-125	0	20	
Boron	mg/L	ND	0.05	0.05	0.051	0.051	100	102	75-125	2	20	
Lithium	mg/L	ND	0.05	0.05	0.051	0.051	101	102	75-125	0	20	CL

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

QC Batch: 705909
QC Batch Method: EPA 3010A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92608869026

METHOD BLANK: 3682937 Matrix: Water
Associated Lab Samples: 92608869026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0010	0.000087	06/21/22 21:15	
Boron	mg/L	ND	0.050	0.0085	06/21/22 21:15	
Lithium	mg/L	ND	0.0025	0.00050	06/21/22 21:15	

LABORATORY CONTROL SAMPLE: 3682938

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.05	0.050	100	80-120	
Boron	mg/L	0.05	0.050J	100	80-120	
Lithium	mg/L	0.05	0.050	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3682939 3682940

Parameter	Units	92608869026 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	ND	0.05	0.05	0.051	0.052	101	104	75-125	3	20	
Boron	mg/L	ND	0.05	0.05	0.049J	0.051	90	96	75-125		20	
Lithium	mg/L	ND	0.05	0.05	0.050	0.051	100	102	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

QC Batch: 710140
QC Batch Method: EPA 3010A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92608869001, 92608869002, 92608869003, 92608869004, 92608869005, 92608869006, 92608869007, 92608869008, 92608869009, 92608869010, 92608869011, 92608869012, 92608869013, 92608869014, 92608869015, 92608869016, 92608869017, 92608869018, 92608869019, 92608869020

METHOD BLANK: 3703302 Matrix: Water
Associated Lab Samples: 92608869001, 92608869002, 92608869003, 92608869004, 92608869005, 92608869006, 92608869007, 92608869008, 92608869009, 92608869010, 92608869011, 92608869012, 92608869013, 92608869014, 92608869015, 92608869016, 92608869017, 92608869018, 92608869019, 92608869020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0010	0.000087	07/13/22 14:11	
Boron	mg/L	ND	0.050	0.0085	07/13/22 17:41	
Lithium	mg/L	ND	0.0025	0.00050	07/13/22 14:11	

LABORATORY CONTROL SAMPLE: 3703303

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.05	0.050	100	80-120	
Boron	mg/L	0.05	0.053	105	80-120	
Lithium	mg/L	0.05	0.050	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3703304 3703305

Parameter	Units	92608869001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	0.0049J	0.05	0.05	0.063	0.059	116	109	75-125	6	20	
Boron	mg/L	3.4	0.05	0.05	3.7	3.8	668	792	75-125	2	20	M1
Lithium	mg/L	0.11J	0.05	0.05	0.16	0.16	110	106	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

QC Batch: 710141
QC Batch Method: EPA 3010A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92608869021, 92608869022, 92608869023, 92608869024

METHOD BLANK: 3703306 Matrix: Water
Associated Lab Samples: 92608869021, 92608869022, 92608869023, 92608869024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0010	0.000087	07/13/22 23:33	
Boron	mg/L	ND	0.050	0.0085	07/13/22 23:33	
Lithium	mg/L	ND	0.0025	0.00050	07/13/22 23:33	

LABORATORY CONTROL SAMPLE: 3703307

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.05	0.048	96	80-120	
Boron	mg/L	0.05	0.049J	99	80-120	
Lithium	mg/L	0.05	0.048	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3703308 3703309

Parameter	Units	92608869021 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	ND	0.05	0.05	0.055	0.060	103	113	75-125	8	20	
Boron	mg/L	3.6	0.05	0.05	3.8	4.3	378	1370	75-125	12	20	M1
Lithium	mg/L	0.11J	0.05	0.05	0.16	0.16	96	102	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

QC Batch: 704567
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92608869001, 92608869002, 92608869003, 92608869004, 92608869005, 92608869006, 92608869007, 92608869008, 92608869009, 92608869010, 92608869011, 92608869012, 92608869013, 92608869014, 92608869015, 92608869016, 92608869017, 92608869018, 92608869019

METHOD BLANK: 3676445
Matrix: Water
Associated Lab Samples: 92608869001, 92608869002, 92608869003, 92608869004, 92608869005, 92608869006, 92608869007, 92608869008, 92608869009, 92608869010, 92608869011, 92608869012, 92608869013, 92608869014, 92608869015, 92608869016, 92608869017, 92608869018, 92608869019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	06/15/22 15:57	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	06/15/22 15:57	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	06/15/22 15:57	

LABORATORY CONTROL SAMPLE: 3676446

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.0	100	80-120	

LABORATORY CONTROL SAMPLE: 3676447

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.4	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3676448 3676449

Parameter	Units	92609083002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	42.3	50	50	91.8	90.5	99	96	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3676450 3676451

Parameter	Units	92608869010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	101	50	50	144	140	87	78	80-120	3	25	M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

QC Batch: 704687
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92608869020, 92608869021, 92608869022, 92608869023, 92608869024, 92608869025, 92608869026

METHOD BLANK: 3677119 Matrix: Water
Associated Lab Samples: 92608869020, 92608869021, 92608869022, 92608869023, 92608869024, 92608869025, 92608869026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	06/16/22 10:22	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	06/16/22 10:22	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	06/16/22 10:22	

LABORATORY CONTROL SAMPLE: 3677120

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.2	104	80-120	

LABORATORY CONTROL SAMPLE: 3677121

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.4	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3677122 3677123

Parameter	Units	92608869021 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	118	50	50	168	166	101	98	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3677124 3677125

Parameter	Units	92609055032 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	58.7	50	50	115	115	112	112	80-120	0	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

QC Batch: 703674 | Analysis Method: SM 2540C-2015
QC Batch Method: SM 2540C-2015 | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92608869001, 92608869002, 92608869003, 92608869004

METHOD BLANK: 3672042 Matrix: Water
Associated Lab Samples: 92608869001, 92608869002, 92608869003, 92608869004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	06/10/22 15:32	

LABORATORY CONTROL SAMPLE: 3672043

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	244	98	90-110	

SAMPLE DUPLICATE: 3672044

Parameter	Units	92608790010 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	210	211	0	25	

SAMPLE DUPLICATE: 3672045

Parameter	Units	92608790020 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	151	147	3	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

QC Batch: 703821
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92608869005, 92608869006, 92608869007, 92608869008, 92608869009, 92608869010, 92608869011, 92608869012, 92608869013, 92608869014, 92608869015, 92608869016, 92608869017, 92608869018, 92608869019, 92608869021, 92608869022, 92608869023, 92608869024

METHOD BLANK: 3673168
Matrix: Water
Associated Lab Samples: 92608869005, 92608869006, 92608869007, 92608869008, 92608869009, 92608869010, 92608869011, 92608869012, 92608869013, 92608869014, 92608869015, 92608869016, 92608869017, 92608869018, 92608869019, 92608869021, 92608869022, 92608869023, 92608869024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	06/11/22 11:40	

LABORATORY CONTROL SAMPLE: 3673169

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	258	103	90-110	

SAMPLE DUPLICATE: 3673170

Parameter	Units	92608869005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	18400	19700	7	25	

SAMPLE DUPLICATE: 3673171

Parameter	Units	92608869015 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	21400	23600	10	25	

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QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

QC Batch: 703871 | Analysis Method: SM 2540C-2015
QC Batch Method: SM 2540C-2015 | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92608869020, 92608869025, 92608869026

METHOD BLANK: 3673282 Matrix: Water
Associated Lab Samples: 92608869020, 92608869025, 92608869026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	06/13/22 12:01	

LABORATORY CONTROL SAMPLE: 3673283

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	252	101	90-110	

SAMPLE DUPLICATE: 3673284

Parameter	Units	92608728008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	564	572	1	25	

SAMPLE DUPLICATE: 3673285

Parameter	Units	92608958001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

QC Batch: 703913
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92608869001, 92608869002, 92608869003, 92608869004, 92608869005, 92608869006, 92608869007, 92608869008, 92608869009, 92608869010, 92608869011, 92608869012, 92608869013, 92608869014, 92608869015, 92608869016

METHOD BLANK: 3673346 Matrix: Water
Associated Lab Samples: 92608869001, 92608869002, 92608869003, 92608869004, 92608869005, 92608869006, 92608869007, 92608869008, 92608869009, 92608869010, 92608869011, 92608869012, 92608869013, 92608869014, 92608869015, 92608869016

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	06/12/22 19:35	
Fluoride	mg/L	ND	0.10	0.050	06/12/22 19:35	
Sulfate	mg/L	ND	1.0	0.50	06/12/22 19:35	

LABORATORY CONTROL SAMPLE: 3673347

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	51.8	104	90-110	
Fluoride	mg/L	2.5	2.6	102	90-110	
Sulfate	mg/L	50	50.1	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3673348 3673349

Parameter	Units	92609177001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L		50	50	57.8	58.4	102	103	90-110	1	10	
Fluoride	mg/L		2.5	2.5	2.7	2.7	103	105	90-110	2	10	
Sulfate	mg/L		50	50	59.9	60.8	101	103	90-110	2	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3673350 3673351

Parameter	Units	92608869007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	3740	50	50	3840	4320	203	1170	90-110	12	10	M1,R1
Fluoride	mg/L	1.0J	2.5	2.5	2.5	2.5	57	60	90-110	3	10	M1
Sulfate	mg/L	1210	50	50	1180	1180	-46	-47	90-110	0	10	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

QC Batch: 704144
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92608869017, 92608869018, 92608869019, 92608869020, 92608869021, 92608869022, 92608869023

METHOD BLANK: 3674648 Matrix: Water
Associated Lab Samples: 92608869017, 92608869018, 92608869019, 92608869020, 92608869021, 92608869022, 92608869023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	06/13/22 22:41	
Fluoride	mg/L	ND	0.10	0.050	06/13/22 22:41	
Sulfate	mg/L	ND	1.0	0.50	06/13/22 22:41	

LABORATORY CONTROL SAMPLE: 3674649

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	53.5	107	90-110	
Fluoride	mg/L	2.5	2.7	109	90-110	
Sulfate	mg/L	50	52.2	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3674650 3674651

Parameter	Units	92608334002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	95.1	50	50	116	115	41	39	90-110	1	10	M1
Fluoride	mg/L	0.43	2.5	2.5	3.1	3.0	106	105	90-110	0	10	
Sulfate	mg/L	48.0	50	50	97.7	98.2	99	100	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3674764 3674765

Parameter	Units	92608304001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	11.0	50	50	61.5	61.8	101	102	90-110	0	10	
Fluoride	mg/L	0.40	2.5	2.5	2.9	2.9	99	98	90-110	0	10	
Sulfate	mg/L	24.9	50	50	74.6	76.0	99	102	90-110	2	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(770)734-4200

QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

QC Batch: 704146
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92608869024, 92608869025, 92608869026

METHOD BLANK: 3674655 Matrix: Water
Associated Lab Samples: 92608869024, 92608869025, 92608869026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	06/14/22 07:09	
Fluoride	mg/L	ND	0.10	0.050	06/14/22 07:09	
Sulfate	mg/L	ND	1.0	0.50	06/14/22 07:09	

LABORATORY CONTROL SAMPLE: 3674656

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	54.1	108	90-110	
Fluoride	mg/L	2.5	2.7	108	90-110	
Sulfate	mg/L	50	52.5	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3674657 3674658

Parameter	Units	92608869024 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	7260	50	50	7230	7340	-53	157	90-110	1	10	M1
Fluoride	mg/L	ND	2.5	2.5	5.7J	5.5J	32	24	90-110		10	D3,M1
Sulfate	mg/L	950	50	50	977	990	55	80	90-110	1	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3674766 3674767

Parameter	Units	92608137004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	13.8	50	50	65.3	65.6	103	103	90-110	0	10	
Fluoride	mg/L	0.15	2.5	2.5	2.6	2.7	100	101	90-110	1	10	
Sulfate	mg/L	11.6	50	50	62.5	63.0	102	103	90-110	1	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

CL	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
R1	RPD value was outside control limits.

Pace Analytical Services, LLC
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92608869001	**T1-4HT**				
92608869002	**T1-4HTS**				
92608869003	**T2-1HT**				
92608869004	**T2-2HT**				
92608869005	**T2-2HTS**				
92608869006	**T2-3HT**				
92608869007	**T2-3HTS**				
92608869008	**T2-4HT**				
92608869009	**T2-4HTS**				
92608869010	**T3-4HT**				
92608869011	**T3-4HTS**				
92608869012	**T4-1HB**				
92608869013	**T4-1HS**				
92608869014	**T4-2HB**				
92608869015	**T4-2HS**				
92608869016	**T4-3HB**				
92608869017	**T4-3HS**				
92608869018	**T4-4HB**				
92608869019	**T4-4HS**				
92608869020	**BG-1LT**				
92608869021	**BG-2HT**				
92608869001	**T1-4HT**	EPA 3010A	823415	EPA 6010C	823927
92608869002	**T1-4HTS**	EPA 3010A	823415	EPA 6010C	823927
92608869003	**T2-1HT**	EPA 3010A	823415	EPA 6010C	823927
92608869004	**T2-2HT**	EPA 3010A	823415	EPA 6010C	823927
92608869005	**T2-2HTS**	EPA 3010A	823415	EPA 6010C	823927
92608869006	**T2-3HT**	EPA 3010A	823415	EPA 6010C	823927
92608869007	**T2-3HTS**	EPA 3010A	823415	EPA 6010C	823927
92608869008	**T2-4HT**	EPA 3010A	823415	EPA 6010C	823927
92608869009	**T2-4HTS**	EPA 3010A	823415	EPA 6010C	823927
92608869010	**T3-4HT**	EPA 3010A	823415	EPA 6010C	823927
92608869011	**T3-4HTS**	EPA 3010A	823415	EPA 6010C	823927
92608869012	**T4-1HB**	EPA 3010A	823415	EPA 6010C	823927
92608869013	**T4-1HS**	EPA 3010A	823415	EPA 6010C	823927
92608869014	**T4-2HB**	EPA 3010A	823415	EPA 6010C	823927
92608869015	**T4-2HS**	EPA 3010A	823415	EPA 6010C	823927
92608869016	**T4-3HB**	EPA 3010A	823415	EPA 6010C	823927
92608869017	**T4-3HS**	EPA 3010A	823415	EPA 6010C	823927
92608869018	**T4-4HB**	EPA 3010A	823415	EPA 6010C	823927
92608869019	**T4-4HS**	EPA 3010A	823415	EPA 6010C	823927
92608869020	**BG-1LT**	EPA 3010A	823415	EPA 6010C	823927
92608869021	**BG-2HT**	EPA 3010A	823416	EPA 6010C	823923
92608869022	**DUP-1**	EPA 3010A	823416	EPA 6010C	823923
92608869023	**DUP-2**	EPA 3010A	823416	EPA 6010C	823923
92608869024	**DUP-3**	EPA 3010A	823416	EPA 6010C	823923
92608869025	**FB-1**	EPA 3010A	823416	EPA 6010C	823923
92608869026	**EB-1**	EPA 3010A	823416	EPA 6010C	823923

REPORT OF LABORATORY ANALYSIS

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110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92608869001	**T1-4HT**	EPA 3010A	710140	EPA 6020B	710161
92608869002	**T1-4HTS**	EPA 3010A	710140	EPA 6020B	710161
92608869003	**T2-1HT**	EPA 3010A	710140	EPA 6020B	710161
92608869004	**T2-2HT**	EPA 3010A	710140	EPA 6020B	710161
92608869005	**T2-2HTS**	EPA 3010A	710140	EPA 6020B	710161
92608869006	**T2-3HT**	EPA 3010A	710140	EPA 6020B	710161
92608869007	**T2-3HTS**	EPA 3010A	710140	EPA 6020B	710161
92608869008	**T2-4HT**	EPA 3010A	710140	EPA 6020B	710161
92608869009	**T2-4HTS**	EPA 3010A	710140	EPA 6020B	710161
92608869010	**T3-4HT**	EPA 3010A	710140	EPA 6020B	710161
92608869011	**T3-4HTS**	EPA 3010A	710140	EPA 6020B	710161
92608869012	**T4-1HB**	EPA 3010A	710140	EPA 6020B	710161
92608869013	**T4-1HS**	EPA 3010A	710140	EPA 6020B	710161
92608869014	**T4-2HB**	EPA 3010A	710140	EPA 6020B	710161
92608869015	**T4-2HS**	EPA 3010A	710140	EPA 6020B	710161
92608869016	**T4-3HB**	EPA 3010A	710140	EPA 6020B	710161
92608869017	**T4-3HS**	EPA 3010A	710140	EPA 6020B	710161
92608869018	**T4-4HB**	EPA 3010A	710140	EPA 6020B	710161
92608869019	**T4-4HS**	EPA 3010A	710140	EPA 6020B	710161
92608869020	**BG-1LT**	EPA 3010A	710140	EPA 6020B	710161
92608869021	**BG-2HT**	EPA 3010A	710141	EPA 6020B	710163
92608869022	**DUP-1**	EPA 3010A	710141	EPA 6020B	710163
92608869023	**DUP-2**	EPA 3010A	710141	EPA 6020B	710163
92608869024	**DUP-3**	EPA 3010A	710141	EPA 6020B	710163
92608869025	**FB-1**	EPA 3010A	705475	EPA 6020B	705488
92608869026	**EB-1**	EPA 3010A	705909	EPA 6020B	706043
92608869001	**T1-4HT**	SM 2320B-2011	704567		
92608869002	**T1-4HTS**	SM 2320B-2011	704567		
92608869003	**T2-1HT**	SM 2320B-2011	704567		
92608869004	**T2-2HT**	SM 2320B-2011	704567		
92608869005	**T2-2HTS**	SM 2320B-2011	704567		
92608869006	**T2-3HT**	SM 2320B-2011	704567		
92608869007	**T2-3HTS**	SM 2320B-2011	704567		
92608869008	**T2-4HT**	SM 2320B-2011	704567		
92608869009	**T2-4HTS**	SM 2320B-2011	704567		
92608869010	**T3-4HT**	SM 2320B-2011	704567		
92608869011	**T3-4HTS**	SM 2320B-2011	704567		
92608869012	**T4-1HB**	SM 2320B-2011	704567		
92608869013	**T4-1HS**	SM 2320B-2011	704567		
92608869014	**T4-2HB**	SM 2320B-2011	704567		
92608869015	**T4-2HS**	SM 2320B-2011	704567		
92608869016	**T4-3HB**	SM 2320B-2011	704567		
92608869017	**T4-3HS**	SM 2320B-2011	704567		
92608869018	**T4-4HB**	SM 2320B-2011	704567		
92608869019	**T4-4HS**	SM 2320B-2011	704567		
92608869020	**BG-1LT**	SM 2320B-2011	704687		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92608869021	BG-2HT	SM 2320B-2011	704687		
92608869022	DUP-1	SM 2320B-2011	704687		
92608869023	DUP-2	SM 2320B-2011	704687		
92608869024	DUP-3	SM 2320B-2011	704687		
92608869025	FB-1	SM 2320B-2011	704687		
92608869026	EB-1	SM 2320B-2011	704687		
92608869001	T1-4HT	SM 2540C-2015	703674		
92608869002	T1-4HTS	SM 2540C-2015	703674		
92608869003	T2-1HT	SM 2540C-2015	703674		
92608869004	T2-2HT	SM 2540C-2015	703674		
92608869005	T2-2HTS	SM 2540C-2015	703821		
92608869006	T2-3HT	SM 2540C-2015	703821		
92608869007	T2-3HTS	SM 2540C-2015	703821		
92608869008	T2-4HT	SM 2540C-2015	703821		
92608869009	T2-4HTS	SM 2540C-2015	703821		
92608869010	T3-4HT	SM 2540C-2015	703821		
92608869011	T3-4HTS	SM 2540C-2015	703821		
92608869012	T4-1HB	SM 2540C-2015	703821		
92608869013	T4-1HS	SM 2540C-2015	703821		
92608869014	T4-2HB	SM 2540C-2015	703821		
92608869015	T4-2HS	SM 2540C-2015	703821		
92608869016	T4-3HB	SM 2540C-2015	703821		
92608869017	T4-3HS	SM 2540C-2015	703821		
92608869018	T4-4HB	SM 2540C-2015	703821		
92608869019	T4-4HS	SM 2540C-2015	703821		
92608869020	BG-1LT	SM 2540C-2015	703871		
92608869021	BG-2HT	SM 2540C-2015	703821		
92608869022	DUP-1	SM 2540C-2015	703821		
92608869023	DUP-2	SM 2540C-2015	703821		
92608869024	DUP-3	SM 2540C-2015	703821		
92608869025	FB-1	SM 2540C-2015	703871		
92608869026	EB-1	SM 2540C-2015	703871		
92608869001	T1-4HT	EPA 300.0 Rev 2.1 1993	703913		
92608869002	T1-4HTS	EPA 300.0 Rev 2.1 1993	703913		
92608869003	T2-1HT	EPA 300.0 Rev 2.1 1993	703913		
92608869004	T2-2HT	EPA 300.0 Rev 2.1 1993	703913		
92608869005	T2-2HTS	EPA 300.0 Rev 2.1 1993	703913		
92608869006	T2-3HT	EPA 300.0 Rev 2.1 1993	703913		
92608869007	T2-3HTS	EPA 300.0 Rev 2.1 1993	703913		
92608869008	T2-4HT	EPA 300.0 Rev 2.1 1993	703913		
92608869009	T2-4HTS	EPA 300.0 Rev 2.1 1993	703913		
92608869010	T3-4HT	EPA 300.0 Rev 2.1 1993	703913		
92608869011	T3-4HTS	EPA 300.0 Rev 2.1 1993	703913		
92608869012	T4-1HB	EPA 300.0 Rev 2.1 1993	703913		
92608869013	T4-1HS	EPA 300.0 Rev 2.1 1993	703913		
92608869014	T4-2HB	EPA 300.0 Rev 2.1 1993	703913		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92608869

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92608869015	**T4-2HS**	EPA 300.0 Rev 2.1 1993	703913		
92608869016	**T4-3HB**	EPA 300.0 Rev 2.1 1993	703913		
92608869017	**T4-3HS**	EPA 300.0 Rev 2.1 1993	704144		
92608869018	**T4-4HB**	EPA 300.0 Rev 2.1 1993	704144		
92608869019	**T4-4HS**	EPA 300.0 Rev 2.1 1993	704144		
92608869020	**BG-1LT**	EPA 300.0 Rev 2.1 1993	704144		
92608869021	**BG-2HT**	EPA 300.0 Rev 2.1 1993	704144		
92608869022	**DUP-1**	EPA 300.0 Rev 2.1 1993	704144		
92608869023	**DUP-2**	EPA 300.0 Rev 2.1 1993	704144		
92608869024	**DUP-3**	EPA 300.0 Rev 2.1 1993	704146		
92608869025	**FB-1**	EPA 300.0 Rev 2.1 1993	704146		
92608869026	**EB-1**	EPA 300.0 Rev 2.1 1993	704146		

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-HUN1-0083 v01_Sample Condition Upon Receipt
	Effective Date: 05/12/2022

Laboratory receiving samples:

Asheville [X] Eden [ ] Greenwood [ ] Huntersville [ ] Raleigh [ ] Mechanicsville [ ] Atlanta [ ] Kernersville [ ]

Sample Condition Upon Receipt

Client Name: Georgia Power

Project #: WO# : 92608869

92608869

Courier: [ ] Commercial [X] Fed Ex [ ] UPS [ ] USPS [ ] Client [ ] Pace [ ] Other:

Custody Seal Present? [ ] Yes [X] No Seals Intact? [ ] Yes [X] No

Date/Initials Person Examining Contents: 6-7-22 AR

Packing Material: [ ] Bubble Wrap [ ] Bubble Bags [X] None [ ] Other

Biological Tissue Frozen? [ ] Yes [ ] No [X] N/A

Thermometer: [X] IR Gun ID: 93707

Type of Ice: [X] Wet [ ] Blue [ ] None

Cooler Temp: 1.2/3.1/2.2/1.9 Correction Factor: Add/Subtract (°C) 0

Temp should be above freezing to 6°C

[ ] Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 3.1/2.2/1.9/1.2

USDA Regulated Soil ([X] N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? [ ] Yes [X] No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? [ ] Yes [X] No

				Comments/Discrepancy:
Chain of Custody Present?	[X] Yes	[ ] No	[ ] N/A	1.
Samples Arrived within Hold Time?	[X] Yes	[ ] No	[ ] N/A	2.
Short Hold Time Analysis (<72 hr.)?	[ ] Yes	[X] No	[ ] N/A	3.
Rush Turn Around Time Requested?	[ ] Yes	[X] No	[ ] N/A	4.
Sufficient Volume?	[X] Yes	[ ] No	[ ] N/A	5.
Correct Containers Used?	[X] Yes	[ ] No	[ ] N/A	6.
-Pace Containers Used?	[X] Yes	[ ] No	[ ] N/A	
Containers Intact?	[X] Yes	[ ] No	[ ] N/A	7.
Dissolved analysis: Samples Field Filtered?	[ ] Yes	[ ] No	[X] N/A	8.
Sample Labels Match COC?	[X] Yes	[ ] No	[ ] N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WT				
Headspace in VOA Vials (>5-6mm)?	[ ] Yes	[ ] No	[X] N/A	10.
Trip Blank Present?	[ ] Yes	[ ] No	[X] N/A	11.
Trip Blank Custody Seals Present?	[ ] Yes	[ ] No	[X] N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? [ ] Yes [ ] No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-HUN1-0084 v01_Tech Spec Sample Condition Upon Receipt
	Effective Date: 05/12/2022

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottles

***Check all unpreserved Nitrates for chlorine

Project #

WO# : 92608869

PM: NMG Due Date: 06/16/22

CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG9S-40 mL VOA H2SO4 (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		2	1			1																							
2		2	1			1																							
3		2	1			1																							
4		2	1			1																							
5		2	1			1																							
6		2	1			1																							
7		2	1			1																							
8		2	1			1																							
9		2	1			1																							
10		2	1			1																							
11		2	1			1																							
12		2	1			1																							

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers)

Qualtrax Document ID: 70677

Pace

DC#_Title: ENV-FRM-HUN1-0083 v01_Sample Condition Upon Receipt

Effective Date: 05/12/2022

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottles

***Check all unpreserved Nitrates for chlorine

Project #

WO# : 92608869

PM: NMG Due Date: 06/16/22

CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG9A-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG9S-40 mL VOA H2SO4 (N/A)	V/GK-13 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		2	1			1																						
2		2	1			1																						
3		2	1			1																						
4		2	1			1																						
5		2	1			1																						
6		2	1			1																						
7		2	1			1																						
8																												
9																												
10																												
11																												
12		2	1			1																						

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers

Pace	DC#_Title: ENV-FRM-HUN1-0083 v01_Sample Condition Upon Receipt
	Effective Date: 05/12/2022

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottles

***Check all unpreserved Nitrates for chlorine

Project # **WO# : 92608869**

PM: NMG Due Date: 06/16/22

CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG9A-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG9S-40 mL VOA H2SO4 (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SPST-125 mL Sterile Plastic (N/A – lab)	SPZT-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		2	1			1																							
2		2	1			1																							
3		2	1			1																							
4		2	1			1																							
5																													
6		2	1			1																							
7		2	1			1																							
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers

Pace

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at https://info.pacelabs.com/hubfs/pas-standard-terms.pdf.

Page : 1 Of 1

Section A
Required Client Information:

Company:	Georgia Power
Address:	1003 Weatherstone Parkway
	Suite 320, Woodstock, GA 30188
Email:	kevin.stephenson@resoluteenv.com
Phone:	(678)548-9415 Fax
Requested Due Date:	

Section B
Required Project Information:

Report To:	Kevin Stephenson
Copy To:	Laura Mitdaceff
Purchase Order #:	
Project Name:	McManus Surface Water Sampling
Project #:	

Section C
Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote:	
Pace Project Manager:	nicole.d'oleo@pacelabs.com,
Pace Profile #:	10768-14

Regulatory Agency:

State / Location: GA

SAMPLE ID — One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	6010/6020*	Cl, F, SO4	Alkalinity	TDS	Residual Chlorine (Y/N)	
1	T1-4HT	WT		6/7/22	1806				4	3		1							x	x	x	x		7.43
2	T1-4HTS	WT		6/7/22	1810				4	3		1							x	x	x	x		7.50
3	T2-1HT	WT		6/7/22	1654				4	3		1							x	x	x	x		7.55
4	T2-2HT	WT		6/7/22	1705				4	3		1							x	x	x	x		7.40
5	T2-2HTS	WT		6/7/22	1700				4	3		1							x	x	x	x		7.49
6	T2-3HT	WT		6/7/22	1728				4	3		1							x	x	x	x		7.43
7	T2-3HTS	WT		6/7/22	1724				4	3		1							x	x	x	x		7.58
8	T2-4HT	WT		6/7/22	1745				4	3		1							x	x	x	x		7.44
9	T2-4HTS	WT		6/7/22	1740				4	3		1							x	x	x	x		7.56
10	T3-4HT	WT		6/7/22	1757				4	3		1							x	x	x	x		7.37
11	T3-4HTS	WT		6/7/22	1753				4	3		1							x	x	x	x		7.51
12	T4-1HB	WT		6/7/22	1454				4	3		1							x	x	x	x		7.34

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
*Ca, Mg, K, Na, As, B, Li				A. Lueker / PACE / AVL	6-9-22	1100	3.1	Y	Y	Y
							2.2	Y	Y	Y
							1.9	Y	Y	Y
							TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Meredith Duncan, Will Laaker, Trent Godwin

SIGNATURE of SAMPLER: Meredith Duncan DATE Signed: 6/8/22

Pace

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at https://info.pacelabs.com/hubfs/pas-standard-terms.pdf.

Page : 2 Of 2

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Georgia Power	Report To:	Kevin Stephenson	Attention:	
Address:	1003 Weatherstone Parkway	Copy To:	Laura Mitchell	Company Name:	
Suite 320, Woodstock, GA 30188				Address:	
Email:	kevin.stephenson@resoluteenv.com	Purchase Order #:		Pace Quote:	
Phone:	(678)548-9415 Fax	Project Name:	McManus Surface Water Sampling	Pace Project Manager:	nicole.d'oleo@pacelabs.com,
Requested Due Date:		Project #:		Pace Profile #:	10768-14

Regulatory Agency:

State / Location: GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	6010/6020*	Cl, F, SO4	Alkalinity	TDS	Residual Chlorine (Y/N)	
13	T4-1HS	WT		6/7/22	1445				4	3		1							x	x	x	x		7.03
14	T4-2HB	WT		6/7/22	1516				4	3		1							x	x	x	x		7.38
15	T4-2HS	WT		6/7/22	1509				4	3		1							x	x	x	x		7.49
16	T4-3HB	WT		6/7/22	1538				4	3		1							x	x	x	x		7.33
17	T4-3HS	WT		6/7/22	1530				4	3		1							x	x	x	x		7.51
18	T4-4HB	WT		6/7/22	1557				4	3		1							x	x	x	x		7.49
19	T4-4HS	WT		6/7/22	1552				4	3		1							x	x	x	x		7.53
20	~~T1-4LT~~	WT																	x	x	x	x		
21	~~T2-4LT~~	WT																	x	x	x	x		
22	~~T3-4LT~~	WT																	x	x	x	x		
23	~~T4-4L~~	WT																	x	x	x	x		
24	BG-1LT	WT		6/8/22	1020				4	3		1							x	x	x	x		6.58

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
*Ca, Mg, K, Na, As, B, Li				A. Rucker / PACE/AVL	6-9-22	1100	3.1	Y	Y	Y
							2.2	Y	Y	Y
							1.9	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Meredith Duncan, Will Laaker, Trent Godwin

SIGNATURE of SAMPLER: Meredith Duncan DATE Signed: 6/8/22

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

Pace

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

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Page : 3 Of 3

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Georgia Power	Report To:	Kevin Stephenson	Attention:	
Address:	1003 Weatherstone Parkway	Copy To:	Laura Mitchell	Company Name:	
Suite 320, Woodstock, GA 30188				Address:	
Email:	kevin.stephenson@resoluteenv.com	Purchase Order #:		Pace Quote:	
Phone:	(678)548-9415 Fax	Project Name:	McManus Surface Water Sampling	Pace Project Manager:	nicole.d'oleo@pacelabs.com,
Requested Due Date:		Project #:		Pace Profile #:	10768-14

Regulatory Agency: —

State / Location: GA

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): 6010/6020*	Cl, F, SO4	Alkalinity	TDS	Residual Chlorine (Y/N)	
25	BG-2HT	WT		6/7/22	1620				4	3		1							x	x	x	x		7.51
26	DUP-1	WT		6/7/22	—				4	3		1							x	x	x	x		
27	DUP-2	WT		6/7/22	—				4	3		1							x	x	x	x		
28	DUP-3	WT		6/7/22	—				4	3		1							x	x	x	x		
29	DUP-4	WT																	x	x	x	x		
30	FB-1	WT		6/8/22	0855				4	3		1							x	x	x	x		
31	EB-1	WT		6/8/22	0900				4	3		1							x	x	x	x		
32	~~BG-1HT~~	WT		~~6/7/22~~	~~1540~~				~~4~~	~~3~~		~~1~~							x	x	x	x		
33		WT																	x	x	x	x		
34		WT																	x	x	x	x		
35		WT																	x	x	x	x		
36		WT																	x	x	x	x		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
*Ca, Mg, K, Na, As, B, Li				A. Buckner / PACE / AVL	6-9-22	1100

SAMPLE CONDITIONS			
TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
3.1	Y	Y	Y
2.2	Y	Y	Y
1.9	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Meredith Duncan, Will Lanker, Trent Godwin

SIGNATURE of SAMPLER: Meredith Duncan DATE Signed: 6/8/22

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

June 27, 2022

Joju Abraham
Georgia Power-CCR
2480 Maner Road
Atlanta, GA 30339

RE: Project: MCMANUS SURFACE WATER SAMPLING
Pace Project No.: 92608877

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on June 09, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Charlotte
- Pace Analytical Services - Minneapolis

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

Sincerely,

Nicole D'Oleo

Nicole D'Oleo
nicole.d'oleo@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Joe Booth, Resolute Environmental & Water Resources
Trent Godwin, Resolute Environmental & Water Resources
Kristen Jurinko
Laura Midkiff, Georgia Power
Ms. Lauren Petty, Southern Company
Kevin Stephenson, Resolute Environmental & Water Resources Consulting, LLC
Stephen Wilson, Resolute Environmental & Water Resources Consulting, LLC

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: MCMANUS SURFACE WATER SAMPLING
Pace Project No.: 92608877

Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab
A2LA Certification #: 2926.01*
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009*
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014*
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605*
Georgia Certification #: 959
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086*
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064*
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137*
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240*
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081*
New Jersey Certification #: MN002
New York Certification #: 11647*
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Ohio VAP Certification (1800) #: CL110*
Oklahoma Certification #: 9507*
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001*
Pennsylvania Certification #: 68-00563*
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192*
Utah Certification #: MN00064*
Vermont Certification #: VT-027053137
Virginia Certification #: 460163*
Washington Certification #: C486*
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01
USDA Permit #: P330-19-00208
*Please Note: Applicable air certifications are denoted with an asterisk (*).

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Laboratory ID: 99006
South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DoH Drinking Water #: LA029
Virginia/VELAP Certification #: 460221

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Laboratory ID: 99030
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: MCMANUS SURFACE WATER SAMPLING
Pace Project No.: 92608877

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92608877001	**BG-1HT**	Water	06/07/22 16:40	06/09/22 11:00

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: MCMANUS SURFACE WATER SAMPLING
Pace Project No.: 92608877

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92608877001	**BG-1HT**	EPA 6010C	DM	4	PASI-M
		EPA 6020B	CRW, DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A

PASI-A = Pace Analytical Services - Asheville
PASI-C = Pace Analytical Services - Charlotte
PASI-M = Pace Analytical Services - Minneapolis

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER SAMPLING
Pace Project No.: 92608877

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92608877001	**BG-1HT**					
	Performed by	CUSTOMER			06/09/22 15:12	
	pH	7.51	Std. Units		06/09/22 15:12	
EPA 6010C	Calcium	272000	ug/L	10000	06/24/22 15:45	
EPA 6010C	Magnesium	849000	ug/L	10000	06/24/22 15:45	
EPA 6010C	Potassium	309000	ug/L	50000	06/24/22 15:45	
EPA 6010C	Sodium	6380000	ug/L	40000	06/24/22 16:07	
EPA 6020B	Arsenic	0.0023J	mg/L	0.020	06/14/22 22:31	
EPA 6020B	Boron	3.7J	mg/L	5.0	06/15/22 18:14	
EPA 6020B	Lithium	0.11	mg/L	0.050	06/14/22 22:31	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	111	mg/L	5.0	06/16/22 11:36	
SM 2320B-2011	Alkalinity, Total as CaCO3	111	mg/L	5.0	06/16/22 11:36	
SM 2540C-2015	Total Dissolved Solids	25700	mg/L	2500	06/11/22 11:43	
EPA 300.0 Rev 2.1 1993	Chloride	9280	mg/L	100	06/14/22 09:00	
EPA 300.0 Rev 2.1 1993	Sulfate	1230	mg/L	100	06/14/22 09:00	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING
Pace Project No.: 92608877

Sample: BG-1HT **Lab ID: 92608877001** Collected: 06/07/22 16:40 Received: 06/09/22 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		06/09/22 15:12		
pH	**7.51**	Std. Units			1		06/09/22 15:12		
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	**272000**	ug/L	10000	462	1	06/23/22 05:41	06/24/22 15:45	7440-70-2	
Magnesium	**849000**	ug/L	10000	157	1	06/23/22 05:41	06/24/22 15:45	7439-95-4	
Potassium	**309000**	ug/L	50000	1730	1	06/23/22 05:41	06/24/22 15:45	7440-09-7	
Sodium	**6380000**	ug/L	40000	2630	2	06/23/22 05:41	06/24/22 16:07	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Arsenic	**0.0023J**	mg/L	0.020	0.0017	1	06/14/22 02:10	06/14/22 22:31	7440-38-2	
Boron	**3.7J**	mg/L	5.0	0.85	5	06/14/22 02:10	06/15/22 18:14	7440-42-8	
Lithium	**0.11**	mg/L	0.050	0.010	1	06/14/22 02:10	06/14/22 22:31	7439-93-2	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**111**	mg/L	5.0	5.0	1		06/16/22 11:36		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/16/22 11:36		
Alkalinity, Total as CaCO3	**111**	mg/L	5.0	5.0	1		06/16/22 11:36		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**25700**	mg/L	2500	2500	1		06/11/22 11:43		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**9280**	mg/L	100	60.0	100		06/14/22 09:00	16887-00-6	
Fluoride	ND	mg/L	10.0	5.0	100		06/14/22 09:00	16984-48-8	D3
Sulfate	**1230**	mg/L	100	50.0	100		06/14/22 09:00	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING
Pace Project No.: 92608877

QC Batch: 823416
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010C
Analysis Description: 6010C Water
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 92608877001

METHOD BLANK: 4362954 Matrix: Water
Associated Lab Samples: 92608877001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	ug/L	ND	500	23.1	06/24/22 15:22	
Magnesium	ug/L	ND	500	7.8	06/24/22 15:22	
Potassium	ug/L	ND	2500	86.7	06/24/22 15:22	
Sodium	ug/L	ND	1000	65.7	06/24/22 15:22	

LABORATORY CONTROL SAMPLE: 4362955

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	ug/L	20000	19300	97	80-120	
Magnesium	ug/L	20000	19700	98	80-120	
Potassium	ug/L	20000	19400	97	80-120	
Sodium	ug/L	20000	19200	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4362956 4362957

Parameter	Units	92608869021 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	ug/L	284000	400000	400000	649000	682000	91	99	75-125	5	20	
Magnesium	ug/L	890000	400000	400000	1240000	1320000	88	107	75-125	6	20	
Potassium	ug/L	330000	400000	400000	743000	783000	103	113	75-125	5	20	
Sodium	ug/L	6990000	400000	400000	7040000	7460000	14	117	75-125	6	20	P6

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING
Pace Project No.: 92608877

QC Batch: 703817
QC Batch Method: EPA 3010A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92608877001

METHOD BLANK: 3673154 Matrix: Water
Associated Lab Samples: 92608877001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0010	0.000087	06/14/22 12:01	
Boron	mg/L	ND	0.050	0.0085	06/14/22 12:01	
Lithium	mg/L	ND	0.0025	0.00050	06/14/22 12:01	

LABORATORY CONTROL SAMPLE: 3673155

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.05	0.048	96	80-120	
Boron	mg/L	0.05	0.047J	93	80-120	
Lithium	mg/L	0.05	0.048	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3673156 3673157

Parameter	Units	92608443007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	18.7 ug/L	0.05	0.05	0.068	0.068	99	99	75-125	0	20	
Boron	mg/L	1480 ug/L	0.05	0.05	1.5	1.6	118	192	75-125	2	20	M1
Lithium	mg/L	130 ug/L	0.05	0.05	0.18	0.18	92	98	75-125	2	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING
Pace Project No.: 92608877

QC Batch: 704687
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92608877001

METHOD BLANK: 3677119 Matrix: Water
Associated Lab Samples: 92608877001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	06/16/22 10:22	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	06/16/22 10:22	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	06/16/22 10:22	

LABORATORY CONTROL SAMPLE: 3677120

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.2	104	80-120	

LABORATORY CONTROL SAMPLE: 3677121

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.4	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3677122 3677123

Parameter	Units	92608869021 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	118	50	50	168	166	101	98	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3677124 3677125

Parameter	Units	92609055032 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	58.7	50	50	115	115	112	112	80-120	0	25	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING
Pace Project No.: 92608877

QC Batch: 703821
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92608877001

METHOD BLANK: 3673168 Matrix: Water
Associated Lab Samples: 92608877001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	06/11/22 11:40	

LABORATORY CONTROL SAMPLE: 3673169

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	258	103	90-110	

SAMPLE DUPLICATE: 3673170

Parameter	Units	92608869005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	18400	19700	7	25	

SAMPLE DUPLICATE: 3673171

Parameter	Units	92608869015 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	21400	23600	10	25	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING
Pace Project No.: 92608877

QC Batch: 704146
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92608877001

METHOD BLANK: 3674655 Matrix: Water
Associated Lab Samples: 92608877001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	06/14/22 07:09	
Fluoride	mg/L	ND	0.10	0.050	06/14/22 07:09	
Sulfate	mg/L	ND	1.0	0.50	06/14/22 07:09	

LABORATORY CONTROL SAMPLE: 3674656

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	54.1	108	90-110	
Fluoride	mg/L	2.5	2.7	108	90-110	
Sulfate	mg/L	50	52.5	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3674657 3674658

Parameter	Units	92608869024 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	7260	50	50	7230	7340	-53	157	90-110	1	10	M1
Fluoride	mg/L	ND	2.5	2.5	5.7J	5.5J	32	24	90-110		10	D3,M1
Sulfate	mg/L	950	50	50	977	990	55	80	90-110	1	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3674766 3674767

Parameter	Units	92608137004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	13.8	50	50	65.3	65.6	103	103	90-110	0	10	
Fluoride	mg/L	0.15	2.5	2.5	2.6	2.7	100	101	90-110	1	10	
Sulfate	mg/L	11.6	50	50	62.5	63.0	102	103	90-110	1	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: MCMANUS SURFACE WATER SAMPLING
Pace Project No.: 92608877

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS SURFACE WATER SAMPLING
Pace Project No.: 92608877

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92608877001	**BG-1HT**				
92608877001	**BG-1HT**	EPA 3010A	823416	EPA 6010C	823923
92608877001	**BG-1HT**	EPA 3010A	703817	EPA 6020B	704214
92608877001	**BG-1HT**	SM 2320B-2011	704687		
92608877001	**BG-1HT**	SM 2540C-2015	703821		
92608877001	**BG-1HT**	EPA 300.0 Rev 2.1 1993	704146		

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-HUN1-0083 v01_Sample Condition Upon Receipt
	Effective Date: 05/12/2022

Laboratory receiving samples:

Asheville ☒ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Sample Condition Upon Receipt

Client Name: Georgia Power

Project #:

WO# : 92608877

92608877

Courier: ☐ Commercial ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ Other:

Custody Seal Present? ☐ Yes ☒ No **Seals Intact?** ☐ Yes ☒ No

Date/Initials Person Examining Contents: 6-7-22 AR

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☒ N/A

Thermometer:

☒ IR Gun ID: 93707/

Type of Ice: ☒ Wet ☐ Blue ☐ None

Cooler Temp: 1.2/3.1/2.2/1.9 **Correction Factor:** Add/Subtract (°C) 0

Cooler Temp Corrected (°C): 3.1/2.2/1.9/1.2

Temp should be above freezing to 6°C

☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☒ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☒ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☒ No

				Comments/Discrepancy:
Chain of Custody Present?	☒ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☒ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☒ No	☐ N/A	4.
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☒ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☒ N/A	8.
Sample Labels Match COC?	☒ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WT				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☒ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☒ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-HUN1-0084 v01_Tech Spec Sample Condition Upon Receipt
	Effective Date: 05/12/2022

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottles

***Check all unpreserved Nitrates for chlorine

Project # WO#: 92608877

PM: NMG Due Date: 06/23/22

CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG9S-40 mL VOA H2SO4 (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		2	1			1																						
2																												
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A
Required Client Information:
Company: Georgia Power
Address: 1003 Weatherstone Parkway
Suite 320, Woodstock, GA 30188
Email: veronica.fay@resoluteenv.com Kevin.Stephenson
Phone: (404)358-8469 Fax
Requested Due Date:

Section B
Required Project Information:
Report To: ~~Veronica Fay~~ Kevin Stephenson
Copy To: Laura Mitchoff
Purchase Order #:
Project Name: McManus Surface Water Sampling
Project #:

Section C
Invoice Information:
Attention:
Company Name:
Address:
Pace Quote: nicole.d'oleo
Pace Project Manager: kevin.sherling@pacelabs.com,
Pace Profile #: 10768 - 14

Regulatory Agency
State / Location: GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test: Metals 6010/6020	Cl, F, SO4/Alk	TDS	Alkalinity	Residual Chlorine (Y/N)	
1	BG-1HT	WT	G	6/7/22	1640				4	3		1						X	X	X	X		7.51
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

MATRIX CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Ca, Mg, K, Na, As, B, Li				A.Rucker/PACE/AVL	6-9-22	1100	1.2	Y	Y	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Meredith Duncan, Will Looker, Trent Godwin
SIGNATURE of SAMPLER:
DATE Signed: 6/8/22

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

eurofins | Environment Testing

ANALYTICAL REPORT

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Tel: (912)354-7858

Laboratory Job ID: 680-221593-1
Client Project/Site: Plant McManus Surface Water
Revision: 1

For:
Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Attn: Kristen N Jurinko

Authorized for release by:
10/31/2022 12:40:52 PM

David Fuller, Project Manager
(770)344-8986
David.Fuller@et.eurofinsus.com

Definitions/Glossary

Client: Southern Company
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: Southern Company
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-221593-1	T1-4HT	Water	09/22/22 09:49	09/23/22 10:40
680-221593-2	T1-4HTS	Water	09/22/22 09:43	09/23/22 10:40
680-221593-3	T2-1HT	Water	09/22/22 08:40	09/23/22 10:40
680-221593-4	T2-2HT	Water	09/22/22 08:50	09/23/22 10:40
680-221593-5	T2-2HTS	Water	09/22/22 08:44	09/23/22 10:40
680-221593-6	T2-3HT	Water	09/22/22 09:05	09/23/22 10:40
680-221593-7	T2-3HTS	Water	09/22/22 09:00	09/23/22 10:40
680-221593-8	T2-4HT	Water	09/22/22 09:35	09/23/22 10:40
680-221593-9	T2-4HTS	Water	09/22/22 09:30	09/23/22 10:40
680-221593-10	T3-4HT	Water	09/22/22 09:22	09/23/22 10:40
680-221593-11	T3-4HTS	Water	09/22/22 09:17	09/23/22 10:40
680-221593-12	T4-1HB	Water	09/22/22 07:20	09/23/22 10:40
680-221593-13	T4-1HS	Water	09/22/22 07:12	09/23/22 10:40
680-221593-14	T4-2HB	Water	09/22/22 07:36	09/23/22 10:40
680-221593-15	T4-2HS	Water	09/22/22 07:30	09/23/22 10:40
680-221593-16	T4-3HB	Water	09/22/22 07:50	09/23/22 10:40
680-221593-17	T4-3HS	Water	09/22/22 07:43	09/23/22 10:40
680-221593-18	T4-4HB	Water	09/22/22 08:08	09/23/22 10:40
680-221593-19	T4-4HS	Water	09/22/22 08:00	09/23/22 10:40
680-221593-20	BG-2HT	Water	09/22/22 08:23	09/23/22 10:40
680-221593-21	DUP-1	Water	09/22/22 00:00	09/23/22 10:40
680-221593-22	DUP-2	Water	09/22/22 00:00	09/23/22 10:40
680-221593-23	FB-1	Water	09/22/22 10:30	09/23/22 10:40
680-221593-24	EB-1	Water	09/22/22 10:25	09/23/22 10:40
680-221861-1	T1-4LT	Water	09/28/22 07:59	09/29/22 12:40
680-221861-2	T2-4LT	Water	09/28/22 08:07	09/29/22 12:40
680-221861-3	T3-4LT	Water	09/28/22 08:15	09/29/22 12:40
680-221861-4	T4-4L	Water	09/27/22 17:35	09/29/22 12:40
680-221861-5	BG-1LT	Water	09/28/22 07:49	09/29/22 12:40
680-221861-6	DUP-3	Water	09/28/22 00:00	09/29/22 12:40
680-221861-7	FB-2	Water	09/28/22 08:50	09/29/22 12:40
680-221861-8	EB-2	Water	09/28/22 09:00	09/29/22 12:40

Case Narrative

Client: Southern Company
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

Job ID: 680-221593-1

Laboratory: Eurofins Savannah

Narrative

Job Narrative
680-221593-1

Revision 1
The report being provided is a revision of the original report sent on 10/25/2022. The report (revision 1) is being revised in order to report a lower dilution for Arsenic & Lithium.

Receipt
The samples were received on 9/23/2022 10:40 AM and 9/29/2022 12:40 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 1.2°C, 1.8°C, 2.3°C and 3.0°C

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 680-744417 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 6020B: All samples in this submittal were diluted to bring the concentration of target analytes within the calibration range and/or due to the abundance of non-target analytes. Elevated reporting limits (RLs) are provided.

Method 6020B: The method blank for preparation batch 400-594691 and analytical batch 400-594928 contained Sodium and Potassium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method 6020B: The CRI associated with batch 400-597203 recovered above the upper control limit for Potassium. The samples associated with this CRI had hits significantly above the CRI, and there is supporting CCV bracket passing above he CRI as well as a non-detection for the method blank and a passing LCS for the affected analytes; therefore, the data have been reported.

Method 6020B: The CRI associated with batch 400-597203 recovered above the upper control limit for Potassium. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 6020B: The method blank for preparation batch 400-594692 and analytical batch 400-594928 contained Boron above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 6020B: The following samples were diluted because the initial analysis produced a significant negative result - the absolute value exceeded the reporting limit (RL): FB-1 (680-221593-23), EB-1 (680-221593-24), FB-2 (680-221861-7) and EB-2 (680-221861-8). Reporting limits (RLs) are elevated as a result.

Method 6020B: Due to sample matrix, there was a marginal failure in the internal standard limits associated with Lithium and Arsenic. As a proper dilution puts the reporting limit over the client requirements, initial results run at a greater concentration are now reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Field Service / Mobile Lab
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample ID: T1-4HT

Lab Sample ID: 680-221593-1

Date Collected: 09/22/22 09:49

Matrix: Water

Date Received: 09/23/22 10:40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12000		250	50	mg/L			10/08/22 02:59	250
Fluoride	<10		25	10	mg/L			10/08/22 02:59	250
Sulfate	1400		250	100	mg/L			10/08/22 02:59	250

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0027		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 20:51	5
Boron	2.0	J B	5.0	0.12	mg/L		10/02/22 11:35	10/07/22 22:01	500
Calcium	240	B	0.25	0.13	mg/L		10/02/22 11:35	10/03/22 20:51	5
Lithium	0.092		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 20:51	5
Magnesium	720	B	0.13	0.041	mg/L		10/02/22 11:35	10/03/22 20:51	5
Potassium	240	B ^2	0.25	0.17	mg/L		10/02/22 11:35	10/03/22 20:51	5
Sodium	5700	B ^2	0.25	0.16	mg/L		10/02/22 11:35	10/03/22 20:51	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	100		5.0	2.2	mg/L			09/27/22 22:26	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	100		5.0	5.0	mg/L			09/27/22 22:26	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 22:26	1
Total Dissolved Solids (SM 2540C-2011)	18000		2000	2000	mg/L			09/27/22 12:02	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.98				SU			09/22/22 09:49	1

Client Sample ID: T1-4HTS

Lab Sample ID: 680-221593-2

Date Collected: 09/22/22 09:43

Matrix: Water

Date Received: 09/23/22 10:40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 18:18	40
Sulfate	1500		40	16	mg/L			10/08/22 18:18	40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12000		100	20	mg/L			10/10/22 17:11	100

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0023		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 20:54	5
Boron	2.1	J B	5.0	0.12	mg/L		10/02/22 11:35	10/07/22 22:04	500
Calcium	240	B	0.25	0.13	mg/L		10/02/22 11:35	10/03/22 20:54	5
Lithium	0.092		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 20:54	5
Magnesium	720	B	0.13	0.041	mg/L		10/02/22 11:35	10/03/22 20:54	5
Potassium	250	B ^2	0.25	0.17	mg/L		10/02/22 11:35	10/03/22 20:54	5
Sodium	5700	B ^2	0.25	0.16	mg/L		10/02/22 11:35	10/03/22 20:54	5

Client Sample ID: T1-4HTS

Lab Sample ID: 680-221593-2

Date Collected: 09/22/22 09:43

Matrix: Water

Date Received: 09/23/22 10:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	100		5.0	2.2	mg/L			09/28/22 17:05	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	100		5.0	5.0	mg/L			09/28/22 17:05	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/28/22 17:05	1
Total Dissolved Solids (SM 2540C-2011)	17000		2000	2000	mg/L			09/27/22 12:02	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.03				SU			09/22/22 09:43	1

Client Sample ID: T2-1HT

Lab Sample ID: 680-221593-3

Date Collected: 09/22/22 08:40

Matrix: Water

Date Received: 09/23/22 10:40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 18:56	40
Sulfate	1500		40	16	mg/L			10/08/22 18:56	40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15000		100	20	mg/L			10/10/22 17:49	100

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0027		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 20:57	5
Boron	2.1	J B	5.0	0.12	mg/L		10/02/22 11:35	10/07/22 22:07	500
Calcium	230	B	0.25	0.13	mg/L		10/02/22 11:35	10/03/22 20:57	5
Lithium	0.090		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 20:57	5
Magnesium	700	B	0.13	0.041	mg/L		10/02/22 11:35	10/03/22 20:57	5
Potassium	240	B ^2	0.25	0.17	mg/L		10/02/22 11:35	10/03/22 20:57	5
Sodium	5500	B ^2	0.25	0.16	mg/L		10/02/22 11:35	10/03/22 20:57	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	100		5.0	2.2	mg/L			09/28/22 18:03	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	100		5.0	5.0	mg/L			09/28/22 18:03	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/28/22 18:03	1
Total Dissolved Solids (SM 2540C-2011)	17000		2000	2000	mg/L			09/27/22 12:02	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.28				SU			09/22/22 08:40	1

Client Sample ID: T2-2HT

Date Collected: 09/22/22 08:50
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-4

Matrix: Water

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 19:09	40
Sulfate	**1500**		40	16	mg/L			10/08/22 19:09	40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15000**		100	20	mg/L			10/10/22 18:01	100

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0025**		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 21:00	5
Boron	**2.0**	**J B**	5.0	0.12	mg/L		10/02/22 11:35	10/07/22 22:10	500
Calcium	**250**	**B**	0.25	0.13	mg/L		10/02/22 11:35	10/03/22 21:00	5
Lithium	**0.096**		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 21:00	5
Magnesium	**750**	**B**	0.13	0.041	mg/L		10/02/22 11:35	10/03/22 21:00	5
Potassium	**250**	**B ^2**	0.25	0.17	mg/L		10/02/22 11:35	10/03/22 21:00	5
Sodium	**5900**	**B ^2**	0.25	0.16	mg/L		10/02/22 11:35	10/03/22 21:00	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**100**		5.0	2.2	mg/L			09/28/22 17:43	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**100**		5.0	5.0	mg/L			09/28/22 17:43	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/28/22 17:43	1
Total Dissolved Solids (SM 2540C-2011)	**16000**		2000	2000	mg/L			09/27/22 12:02	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.99**				SU			09/22/22 08:50	1

Client Sample ID: T2-2HTS

Date Collected: 09/22/22 08:44
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-5

Matrix: Water

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 19:22	40
Sulfate	**1500**		40	16	mg/L			10/08/22 19:22	40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12000**		100	20	mg/L			10/10/22 18:14	100

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0028**		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 21:03	5
Boron	**1.9**	**J B**	5.0	0.12	mg/L		10/02/22 11:35	10/07/22 22:13	500
Calcium	**230**	**B**	0.25	0.13	mg/L		10/02/22 11:35	10/03/22 21:03	5
Lithium	**0.088**		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 21:03	5
Magnesium	**690**	**B**	0.13	0.041	mg/L		10/02/22 11:35	10/03/22 21:03	5

Client Sample ID: T2-2HTS

Lab Sample ID: 680-221593-5

Date Collected: 09/22/22 08:44

Matrix: Water

Date Received: 09/23/22 10:40

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	230	B ^2	0.25	0.17	mg/L		10/02/22 11:35	10/03/22 21:03	5
Sodium	5400	B ^2	0.25	0.16	mg/L		10/02/22 11:35	10/03/22 21:03	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	100		5.0	2.2	mg/L			09/28/22 17:24	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	100		5.0	5.0	mg/L			09/28/22 17:24	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/28/22 17:24	1
Total Dissolved Solids (SM 2540C-2011)	19000		2000	2000	mg/L			09/27/22 12:02	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.06				SU			09/22/22 08:44	1

Client Sample ID: T2-3HT

Lab Sample ID: 680-221593-6

Date Collected: 09/22/22 09:05

Matrix: Water

Date Received: 09/23/22 10:40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 19:34	40
Sulfate	1600		40	16	mg/L			10/08/22 19:34	40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13000		100	20	mg/L			10/10/22 18:27	100

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0030		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 21:06	5
Boron	2.2	J B	5.0	0.12	mg/L		10/02/22 11:35	10/07/22 22:16	500
Calcium	250	B	0.25	0.13	mg/L		10/02/22 11:35	10/03/22 21:06	5
Lithium	0.097		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 21:06	5
Magnesium	760	B	0.13	0.041	mg/L		10/02/22 11:35	10/03/22 21:06	5
Potassium	250	B ^2	0.25	0.17	mg/L		10/02/22 11:35	10/03/22 21:06	5
Sodium	6000	B ^2	0.25	0.16	mg/L		10/02/22 11:35	10/03/22 21:06	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	100		5.0	2.2	mg/L			09/28/22 18:13	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	100		5.0	5.0	mg/L			09/28/22 18:13	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/28/22 18:13	1
Total Dissolved Solids (SM 2540C-2011)	20000		2000	2000	mg/L			09/27/22 12:02	1

Client Sample ID: T2-3HT

Date Collected: 09/22/22 09:05
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-6
Matrix: Water

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.97**				SU			09/22/22 09:05	1

Client Sample ID: T2-3HTS

Date Collected: 09/22/22 09:00
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-7
Matrix: Water

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 19:47	40
Sulfate	**1400**		40	16	mg/L			10/08/22 19:47	40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12000**		100	20	mg/L			10/10/22 18:39	100

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0024**		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 21:34	5
Boron	**1.9**	**J B**	5.0	0.12	mg/L		10/02/22 11:35	10/07/22 22:20	500
Calcium	**240**	**B**	0.25	0.13	mg/L		10/02/22 11:35	10/03/22 21:34	5
Lithium	**0.087**		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 21:34	5
Magnesium	**710**	**B**	0.13	0.041	mg/L		10/02/22 11:35	10/03/22 21:34	5
Potassium	**240**	**B ^2**	0.25	0.17	mg/L		10/02/22 11:35	10/03/22 21:34	5
Sodium	**5600**	**B ^2**	0.25	0.16	mg/L		10/02/22 11:35	10/03/22 21:34	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**100**		5.0	2.2	mg/L			09/28/22 17:53	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**100**		5.0	5.0	mg/L			09/28/22 17:53	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/28/22 17:53	1
Total Dissolved Solids (SM 2540C-2011)	**17000**		2000	2000	mg/L			09/27/22 12:02	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**7.03**				SU			09/22/22 09:00	1

Client Sample ID: T2-4HT

Date Collected: 09/22/22 09:35
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-8
Matrix: Water

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12000**		500	100	mg/L			10/11/22 12:03	500
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 20:00	40
Sulfate	**1600**		40	16	mg/L			10/08/22 20:00	40

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0027**		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 21:37	5

Client Sample ID: T2-4HT

Date Collected: 09/22/22 09:35
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-8

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.1	J B	5.0	0.12	mg/L		10/02/22 11:35	10/07/22 22:23	500
Calcium	240	B	0.25	0.13	mg/L		10/02/22 11:35	10/03/22 21:37	5
Lithium	0.090		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 21:37	5
Magnesium	720	B	0.13	0.041	mg/L		10/02/22 11:35	10/03/22 21:37	5
Potassium	240	B ^2	0.25	0.17	mg/L		10/02/22 11:35	10/03/22 21:37	5
Sodium	5700	B ^2	0.25	0.16	mg/L		10/02/22 11:35	10/03/22 21:37	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	100		5.0	2.2	mg/L			09/28/22 17:33	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	100		5.0	5.0	mg/L			09/28/22 17:33	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/28/22 17:33	1
Total Dissolved Solids (SM 2540C-2011)	17000		2000	2000	mg/L			09/27/22 12:02	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.01				SU			09/22/22 09:35	1

Client Sample ID: T2-4HTS

Date Collected: 09/22/22 09:30
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-9

Matrix: Water

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 20:12	40
Sulfate	1500		40	16	mg/L			10/08/22 20:12	40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11000		100	20	mg/L			10/10/22 19:05	100

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0025		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 21:40	5
Boron	1.7	J B	5.0	0.12	mg/L		10/02/22 11:35	10/07/22 22:26	500
Calcium	240	B	0.25	0.13	mg/L		10/02/22 11:35	10/03/22 21:40	5
Lithium	0.091		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 21:40	5
Magnesium	730	B	0.13	0.041	mg/L		10/02/22 11:35	10/03/22 21:40	5
Potassium	250	B ^2	0.25	0.17	mg/L		10/02/22 11:35	10/03/22 21:40	5
Sodium	5700	B ^2	0.25	0.16	mg/L		10/02/22 11:35	10/03/22 21:40	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	100		5.0	2.2	mg/L			09/28/22 18:23	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	100		5.0	5.0	mg/L			09/28/22 18:23	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/28/22 18:23	1

Client Sample ID: T2-4HTS

Lab Sample ID: 680-221593-9

Date Collected: 09/22/22 09:30

Matrix: Water

Date Received: 09/23/22 10:40

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C-2011)	22000		2000	2000	mg/L			09/28/22 12:20	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.04				SU			09/22/22 09:30	1

Client Sample ID: T3-4HT

Lab Sample ID: 680-221593-10

Date Collected: 09/22/22 09:22

Matrix: Water

Date Received: 09/23/22 10:40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 20:25	40
Sulfate	1600		40	16	mg/L			10/08/22 20:25	40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13000		100	20	mg/L			10/10/22 19:17	100

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0027		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 21:43	5
Boron	2.2	J B	5.0	0.12	mg/L		10/02/22 11:35	10/07/22 22:47	500
Calcium	240	B	0.25	0.13	mg/L		10/02/22 11:35	10/03/22 21:43	5
Lithium	0.091		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 21:43	5
Magnesium	750	B	0.13	0.041	mg/L		10/02/22 11:35	10/03/22 21:43	5
Potassium	250	B ^2	0.25	0.17	mg/L		10/02/22 11:35	10/03/22 21:43	5
Sodium	5800	B ^2	0.25	0.16	mg/L		10/02/22 11:35	10/03/22 21:43	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	100		5.0	2.2	mg/L			09/28/22 18:43	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	100		5.0	5.0	mg/L			09/28/22 18:43	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/28/22 18:43	1
Total Dissolved Solids (SM 2540C-2011)	22000		2000	2000	mg/L			09/28/22 12:20	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.98				SU			09/22/22 09:22	1

Client Sample ID: T3-4HTS

Lab Sample ID: 680-221593-11

Date Collected: 09/22/22 09:17

Matrix: Water

Date Received: 09/23/22 10:40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 20:38	40
Sulfate	1400		40	16	mg/L			10/08/22 20:38	40

Client Sample ID: T3-4HTS

Date Collected: 09/22/22 09:17
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-11
Matrix: Water

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11000**		100	20	mg/L			10/10/22 19:30	100

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0021**		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 17:18	5
Boron	**2.1**		0.050	0.0012	mg/L		10/02/22 11:35	10/03/22 17:18	5
Calcium	**210**		0.25	0.13	mg/L		10/02/22 11:35	10/03/22 17:18	5
Lithium	**0.079**		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 17:18	5
Magnesium	**620**		0.13	0.041	mg/L		10/02/22 11:35	10/03/22 17:18	5
Potassium	**210**		0.25	0.17	mg/L		10/02/22 11:35	10/03/22 17:18	5
Sodium	**4900**		0.25	0.16	mg/L		10/02/22 11:35	10/03/22 17:18	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**95**		5.0	2.2	mg/L			09/28/22 18:33	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**95**		5.0	5.0	mg/L			09/28/22 18:33	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/28/22 18:33	1
Total Dissolved Solids (SM 2540C-2011)	**19000**		2000	2000	mg/L			09/28/22 12:20	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**7.09**				SU			09/22/22 09:17	1

Client Sample ID: T4-1HB

Date Collected: 09/22/22 07:20
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-12
Matrix: Water

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 21:28	40
Sulfate	**1600**		40	16	mg/L			10/08/22 21:28	40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13000**		100	20	mg/L			10/10/22 20:33	100

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0030**		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 17:58	5
Boron	**2.9**	**J**	5.0	0.12	mg/L		10/02/22 11:35	10/10/22 14:27	500
Calcium	**260**		0.25	0.13	mg/L		10/02/22 11:35	10/03/22 17:58	5
Lithium	**0.099**		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 17:58	5
Magnesium	**770**		0.13	0.041	mg/L		10/02/22 11:35	10/03/22 17:58	5
Potassium	**250**		25	17	mg/L		10/02/22 11:35	10/10/22 14:27	500
Sodium	**6800**		25	16	mg/L		10/02/22 11:35	10/10/22 14:27	500

Client Sample ID: T4-1HB

Lab Sample ID: 680-221593-12

Date Collected: 09/22/22 07:20

Matrix: Water

Date Received: 09/23/22 10:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	110		5.0	2.2	mg/L			09/28/22 19:44	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	110		5.0	5.0	mg/L			09/28/22 19:44	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/28/22 19:44	1
Total Dissolved Solids (SM 2540C-2011)	20000		2000	2000	mg/L			09/28/22 12:20	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.85				SU			09/22/22 07:20	1

Client Sample ID: T4-1HS

Lab Sample ID: 680-221593-13

Date Collected: 09/22/22 07:12

Matrix: Water

Date Received: 09/23/22 10:40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 22:06	40
Sulfate	1700		40	16	mg/L			10/08/22 22:06	40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13000		100	20	mg/L			10/10/22 21:11	100

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0030		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 18:01	5
Boron	2.9	J	5.0	0.12	mg/L		10/02/22 11:35	10/10/22 14:30	500
Calcium	250		0.25	0.13	mg/L		10/02/22 11:35	10/03/22 18:01	5
Lithium	0.099		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 18:01	5
Magnesium	760		0.13	0.041	mg/L		10/02/22 11:35	10/03/22 18:01	5
Potassium	250		25	17	mg/L		10/02/22 11:35	10/10/22 14:30	500
Sodium	6700		25	16	mg/L		10/02/22 11:35	10/10/22 14:30	500

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	110		5.0	2.2	mg/L			09/28/22 19:34	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	110		5.0	5.0	mg/L			09/28/22 19:34	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/28/22 19:34	1
Total Dissolved Solids (SM 2540C-2011)	21000		2000	2000	mg/L			09/28/22 12:20	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.59				SU			09/22/22 07:12	1

Client Sample ID: T4-2HB

Date Collected: 09/22/22 07:36
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-14
Matrix: Water

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 22:19	40
Sulfate	**1700**		40	16	mg/L			10/08/22 22:19	40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13000**		100	20	mg/L			10/10/22 21:24	100

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0030**		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 18:04	5
Boron	**2.9**	**J**	5.0	0.12	mg/L		10/02/22 11:35	10/10/22 14:33	500
Calcium	**260**		0.25	0.13	mg/L		10/02/22 11:35	10/03/22 18:04	5
Lithium	**0.10**		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 18:04	5
Magnesium	**770**		0.13	0.041	mg/L		10/02/22 11:35	10/03/22 18:04	5
Potassium	**240**		25	17	mg/L		10/02/22 11:35	10/10/22 14:33	500
Sodium	**6700**		25	16	mg/L		10/02/22 11:35	10/10/22 14:33	500

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**110**		5.0	2.2	mg/L			09/28/22 19:14	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**110**		5.0	5.0	mg/L			09/28/22 19:14	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/28/22 19:14	1
Total Dissolved Solids (SM 2540C-2011)	**24000**		2000	2000	mg/L			09/28/22 12:20	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.98**				SU			09/22/22 07:36	1

Client Sample ID: T4-2HS

Date Collected: 09/22/22 07:30
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-15
Matrix: Water

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 22:31	40
Sulfate	**1700**		40	16	mg/L			10/08/22 22:31	40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13000**		100	20	mg/L			10/10/22 21:36	100

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0023**		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 18:07	5
Boron	**2.9**	**J**	5.0	0.12	mg/L		10/02/22 11:35	10/10/22 14:36	500
Calcium	**260**		0.25	0.13	mg/L		10/02/22 11:35	10/03/22 18:07	5
Lithium	**0.10**		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 18:07	5
Magnesium	**770**		0.13	0.041	mg/L		10/02/22 11:35	10/03/22 18:07	5

Client Sample ID: T4-2HS

Date Collected: 09/22/22 07:30
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-15
Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	240		25	17	mg/L		10/02/22 11:35	10/10/22 14:36	500
Sodium	6800		25	16	mg/L		10/02/22 11:35	10/10/22 14:36	500

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	110		5.0	2.2	mg/L			10/04/22 15:27	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	110		5.0	5.0	mg/L			10/04/22 15:27	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/04/22 15:27	1
Total Dissolved Solids (SM 2540C-2011)	11000		2000	2000	mg/L			09/28/22 12:20	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.96				SU			09/22/22 07:30	1

Client Sample ID: T4-3HB

Date Collected: 09/22/22 07:50
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-16
Matrix: Water

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 22:44	40
Sulfate	1700		40	16	mg/L			10/08/22 22:44	40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13000		100	20	mg/L			10/10/22 21:49	100

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0027		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 18:10	5
Boron	3.4	J	5.0	0.12	mg/L		10/02/22 11:35	10/10/22 15:23	500
Calcium	260		0.25	0.13	mg/L		10/02/22 11:35	10/03/22 18:10	5
Lithium	0.10		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 18:10	5
Magnesium	790		0.13	0.041	mg/L		10/02/22 11:35	10/03/22 18:10	5
Potassium	250		25	17	mg/L		10/02/22 11:35	10/10/22 15:23	500
Sodium	6800		25	16	mg/L		10/02/22 11:35	10/10/22 15:23	500

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	110		5.0	2.2	mg/L			10/04/22 15:07	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	110		5.0	5.0	mg/L			10/04/22 15:07	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/04/22 15:07	1
Total Dissolved Solids (SM 2540C-2011)	21000		2000	2000	mg/L			09/28/22 12:20	1

Client Sample ID: T4-3HB

Lab Sample ID: 680-221593-16

Date Collected: 09/22/22 07:50

Matrix: Water

Date Received: 09/23/22 10:40

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.97**				SU			09/22/22 07:50	1

Client Sample ID: T4-3HS

Lab Sample ID: 680-221593-17

Date Collected: 09/22/22 07:43

Matrix: Water

Date Received: 09/23/22 10:40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 22:57	40
Sulfate	**1600**		40	16	mg/L			10/08/22 22:57	40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13000**		100	20	mg/L			10/10/22 22:02	100

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0030**		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 18:13	5
Boron	**2.7**	**J**	5.0	0.12	mg/L		10/02/22 11:35	10/10/22 15:42	500
Calcium	**260**		0.25	0.13	mg/L		10/02/22 11:35	10/03/22 18:13	5
Lithium	**0.10**		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 18:13	5
Magnesium	**780**		0.13	0.041	mg/L		10/02/22 11:35	10/03/22 18:13	5
Potassium	**240**		25	17	mg/L		10/02/22 11:35	10/10/22 15:42	500
Sodium	**6700**		25	16	mg/L		10/02/22 11:35	10/10/22 15:42	500

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**110**		5.0	2.2	mg/L			10/04/22 15:36	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**110**		5.0	5.0	mg/L			10/04/22 15:36	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/04/22 15:36	1
Total Dissolved Solids (SM 2540C-2011)	**23000**		2000	2000	mg/L			09/28/22 12:20	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**7.01**				SU			09/22/22 07:43	1

Client Sample ID: T4-4HB

Lab Sample ID: 680-221593-18

Date Collected: 09/22/22 08:08

Matrix: Water

Date Received: 09/23/22 10:40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 23:09	40
Sulfate	**1700**		40	16	mg/L			10/08/22 23:09	40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13000**		100	20	mg/L			10/10/22 22:14	100

Client Sample ID: T4-4HB

Lab Sample ID: 680-221593-18

Date Collected: 09/22/22 08:08

Matrix: Water

Date Received: 09/23/22 10:40

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0027		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 18:16	5
Boron	2.7	J	5.0	0.12	mg/L		10/02/22 11:35	10/10/22 15:51	500
Calcium	270		0.25	0.13	mg/L		10/02/22 11:35	10/03/22 18:16	5
Lithium	0.11		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 18:16	5
Magnesium	810		0.13	0.041	mg/L		10/02/22 11:35	10/03/22 18:16	5
Potassium	230		25	17	mg/L		10/02/22 11:35	10/10/22 15:51	500
Sodium	6700		25	16	mg/L		10/02/22 11:35	10/10/22 15:51	500

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	110		5.0	2.2	mg/L			10/04/22 15:57	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	110		5.0	5.0	mg/L			10/04/22 15:57	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/04/22 15:57	1
Total Dissolved Solids (SM 2540C-2011)	23000		2000	2000	mg/L			09/28/22 12:20	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.06				SU			09/22/22 08:08	1

Client Sample ID: T4-4HS

Lab Sample ID: 680-221593-19

Date Collected: 09/22/22 08:00

Matrix: Water

Date Received: 09/23/22 10:40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 23:22	40
Sulfate	1700		40	16	mg/L			10/08/22 23:22	40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13000		100	20	mg/L			10/10/22 22:27	100

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0029		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 18:19	5
Boron	2.8	J	5.0	0.12	mg/L		10/02/22 11:35	10/10/22 15:54	500
Calcium	260		0.25	0.13	mg/L		10/02/22 11:35	10/03/22 18:19	5
Lithium	0.10		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 18:19	5
Magnesium	790		0.13	0.041	mg/L		10/02/22 11:35	10/03/22 18:19	5
Potassium	250		25	17	mg/L		10/02/22 11:35	10/10/22 15:54	500
Sodium	7000		25	16	mg/L		10/02/22 11:35	10/10/22 15:54	500

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	110		5.0	2.2	mg/L			10/04/22 15:17	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	110		5.0	5.0	mg/L			10/04/22 15:17	1

Client Sample ID: T4-4HS

Date Collected: 09/22/22 08:00
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-19
Matrix: Water

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/04/22 15:17	1
Total Dissolved Solids (SM 2540C-2011)	**21000**		2000	2000	mg/L			09/28/22 12:20	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**7.03**				SU			09/22/22 08:00	1

Client Sample ID: BG-2HT

Date Collected: 09/22/22 08:23
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-20
Matrix: Water

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 23:35	40
Sulfate	**1900**		40	16	mg/L			10/08/22 23:35	40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14000**		100	20	mg/L			10/10/22 22:40	100

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0026**		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 18:47	5
Boron	**2.9**	**J**	5.0	0.12	mg/L		10/02/22 11:35	10/10/22 15:57	500
Calcium	**280**		0.25	0.13	mg/L		10/02/22 11:35	10/03/22 18:47	5
Lithium	**0.11**		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 18:47	5
Magnesium	**840**		0.13	0.041	mg/L		10/02/22 11:35	10/03/22 18:47	5
Potassium	**250**		25	17	mg/L		10/02/22 11:35	10/10/22 15:57	500
Sodium	**7200**		25	16	mg/L		10/02/22 11:35	10/10/22 15:57	500

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**110**		5.0	2.2	mg/L			10/04/22 15:46	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**110**		5.0	5.0	mg/L			10/04/22 15:46	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/04/22 15:46	1
Total Dissolved Solids (SM 2540C-2011)	**24000**		2000	2000	mg/L			09/28/22 12:20	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**7.12**				SU			09/22/22 08:23	1

Client Sample ID: DUP-1

Date Collected: 09/22/22 00:00
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-21
Matrix: Water

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 23:47	40
Sulfate	**1600**		40	16	mg/L			10/08/22 23:47	40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14000**		100	20	mg/L			10/10/22 22:52	100

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0026**		0.0013	0.0012	mg/L		09/27/22 16:07	09/29/22 21:51	5
Boron	**3.7**	**J B**	5.0	0.12	mg/L		09/27/22 16:07	10/10/22 16:10	500
Calcium	**280**		0.25	0.13	mg/L		09/27/22 16:07	09/29/22 21:51	5
Lithium	**0.12**	**^3+**	0.0050	0.0049	mg/L		09/27/22 16:07	09/29/22 21:51	5
Magnesium	**860**		0.13	0.041	mg/L		09/27/22 16:07	09/29/22 21:51	5
Potassium	**270**	**B**	25	17	mg/L		09/27/22 16:07	10/10/22 16:10	500
Sodium	**6700**		0.25	0.16	mg/L		09/27/22 16:07	09/29/22 21:51	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**110**		5.0	2.2	mg/L			10/04/22 16:07	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**110**		5.0	5.0	mg/L			10/04/22 16:07	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/04/22 16:07	1
Total Dissolved Solids (SM 2540C-2011)	**21000**		2000	2000	mg/L			09/28/22 12:20	1

Client Sample ID: DUP-2

Date Collected: 09/22/22 00:00
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-22
Matrix: Water

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/09/22 01:54	40
Sulfate	**1500**		40	16	mg/L			10/09/22 01:54	40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12000**		100	20	mg/L			10/10/22 23:30	100

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0028**		0.0013	0.0012	mg/L		09/27/22 16:07	09/29/22 22:06	5
Boron	**2.8**	**J B**	5.0	0.12	mg/L		09/27/22 16:07	10/10/22 16:13	500
Calcium	**250**		0.25	0.13	mg/L		09/27/22 16:07	09/29/22 22:06	5
Lithium	**0.10**	**^3+**	0.0050	0.0049	mg/L		09/27/22 16:07	09/29/22 22:06	5
Magnesium	**770**		0.13	0.041	mg/L		09/27/22 16:07	09/29/22 22:06	5
Potassium	**230**	**B**	25	17	mg/L		09/27/22 16:07	10/10/22 16:13	500
Sodium	**5900**		0.25	0.16	mg/L		09/27/22 16:07	09/29/22 22:06	5

Client Sample ID: DUP-2

Date Collected: 09/22/22 00:00
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-22
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**100**		5.0	2.2	mg/L			10/04/22 16:16	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**100**		5.0	5.0	mg/L			10/04/22 16:16	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/04/22 16:16	1
Total Dissolved Solids (SM 2540C-2011)	**22000**		2000	2000	mg/L			09/28/22 12:20	1

Client Sample ID: FB-1

Date Collected: 09/22/22 10:30
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-23
Matrix: Water

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/09/22 01:16	1
Fluoride	<0.040		0.10	0.040	mg/L			10/09/22 01:16	1
Sulfate	<0.40		1.0	0.40	mg/L			10/09/22 01:16	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0012		0.0013	0.0012	mg/L		09/27/22 16:07	09/29/22 22:09	5
Boron	**0.021**	**J B**	0.50	0.012	mg/L		09/27/22 16:07	10/10/22 16:16	50
Calcium	<0.13		0.25	0.13	mg/L		09/27/22 16:07	09/29/22 22:09	5
Lithium	<0.0049	^3+	0.0050	0.0049	mg/L		09/27/22 16:07	09/29/22 22:09	5
Magnesium	**0.057**	**J**	0.13	0.041	mg/L		09/27/22 16:07	09/29/22 22:09	5
Potassium	**2.0**	**J B**	2.5	1.7	mg/L		09/27/22 16:07	10/10/22 16:16	50
Sodium	**1.2**		0.25	0.16	mg/L		09/27/22 16:07	09/29/22 22:09	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	<2.2		5.0	2.2	mg/L			10/04/22 14:45	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/04/22 14:45	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/04/22 14:45	1
Total Dissolved Solids (SM 2540C-2011)	<10		10	10	mg/L			09/28/22 12:20	1

Client Sample ID: EB-1

Date Collected: 09/22/22 10:25
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-24
Matrix: Water

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/09/22 02:07	1
Fluoride	<0.040		0.10	0.040	mg/L			10/09/22 02:07	1
Sulfate	<0.40		1.0	0.40	mg/L			10/09/22 02:07	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0012		0.0013	0.0012	mg/L		09/27/22 16:07	09/29/22 22:37	5

Client Sample ID: EB-1

Lab Sample ID: 680-221593-24

Date Collected: 09/22/22 10:25

Matrix: Water

Date Received: 09/23/22 10:40

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.012		0.50	0.012	mg/L		09/27/22 16:07	10/10/22 16:34	50
Calcium	<0.13		0.25	0.13	mg/L		09/27/22 16:07	09/29/22 22:37	5
Lithium	<0.0049	^3+	0.0050	0.0049	mg/L		09/27/22 16:07	09/29/22 22:37	5
Magnesium	<0.041		0.13	0.041	mg/L		09/27/22 16:07	09/29/22 22:37	5
Potassium	**3.3**	**B**	2.5	1.7	mg/L		09/27/22 16:07	10/10/22 16:34	50
Sodium	**0.36**		0.25	0.16	mg/L		09/27/22 16:07	09/29/22 22:37	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	<2.2		5.0	2.2	mg/L			10/04/22 14:56	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/04/22 14:56	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/04/22 14:56	1
Total Dissolved Solids (SM 2540C-2011)	<10		10	10	mg/L			09/28/22 12:20	1

Client Sample ID: T1-4LT

Lab Sample ID: 680-221861-1

Date Collected: 09/28/22 07:59

Matrix: Water

Date Received: 09/29/22 12:40

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13000**		200	40	mg/L			10/14/22 15:38	200
Fluoride	<8.0		20	8.0	mg/L			10/14/22 15:38	200
Sulfate	**1500**		200	80	mg/L			10/14/22 15:38	200

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0060		0.0063	0.0060	mg/L		10/15/22 12:10	10/21/22 01:19	25
Boron	**2.5**		0.25	0.0059	mg/L		10/15/22 12:10	10/21/22 01:19	25
Calcium	**260**		1.3	0.63	mg/L		10/15/22 12:10	10/21/22 01:19	25
Lithium	**0.10**		0.025	0.025	mg/L		10/15/22 12:10	10/21/22 01:19	25
Magnesium	**770**		0.63	0.21	mg/L		10/15/22 12:10	10/21/22 01:19	25
Potassium	**190**	**^3+**	13	8.5	mg/L		10/15/22 12:10	10/24/22 15:45	250
Sodium	**6100**		13	8.0	mg/L		10/15/22 12:10	10/21/22 23:24	250

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**110**		5.0	2.2	mg/L			10/06/22 22:07	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**110**		5.0	5.0	mg/L			10/06/22 22:07	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/06/22 22:07	1
Total Dissolved Solids (SM 2540C-2011)	**20000**		2000	2000	mg/L			09/29/22 11:31	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.69**				SU			09/28/22 07:59	1

Client Sample ID: T2-4LT

Date Collected: 09/28/22 08:07
Date Received: 09/29/22 12:40

Lab Sample ID: 680-221861-2

Matrix: Water

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14000		200	40	mg/L			10/14/22 15:50	200
Fluoride	<8.0		20	8.0	mg/L			10/14/22 15:50	200
Sulfate	1700		200	80	mg/L			10/14/22 15:50	200

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0060		0.0063	0.0060	mg/L		10/15/22 12:10	10/21/22 01:22	25
Boron	2.5		0.25	0.0059	mg/L		10/15/22 12:10	10/21/22 01:22	25
Calcium	260		1.3	0.63	mg/L		10/15/22 12:10	10/21/22 01:22	25
Lithium	0.10		0.025	0.025	mg/L		10/15/22 12:10	10/21/22 01:22	25
Magnesium	760		0.63	0.21	mg/L		10/15/22 12:10	10/21/22 01:22	25
Potassium	190	^3+	13	8.5	mg/L		10/15/22 12:10	10/24/22 15:48	250
Sodium	5900		13	8.0	mg/L		10/15/22 12:10	10/21/22 23:59	250

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	110		5.0	2.2	mg/L			10/06/22 22:27	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	110		5.0	5.0	mg/L			10/06/22 22:27	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/06/22 22:27	1
Total Dissolved Solids (SM 2540C-2011)	19000		2000	2000	mg/L			09/29/22 11:31	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.06				SU			09/28/22 08:07	1

Client Sample ID: T3-4LT

Date Collected: 09/28/22 08:15
Date Received: 09/29/22 12:40

Lab Sample ID: 680-221861-3

Matrix: Water

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14000		200	40	mg/L			10/14/22 10:34	200
Fluoride	<8.0		20	8.0	mg/L			10/14/22 10:34	200
Sulfate	1600		200	80	mg/L			10/14/22 10:34	200

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0060		0.0063	0.0060	mg/L		10/15/22 12:10	10/21/22 01:25	25
Boron	2.7		0.25	0.0059	mg/L		10/15/22 12:10	10/21/22 01:25	25
Calcium	260		1.3	0.63	mg/L		10/15/22 12:10	10/21/22 01:25	25
Lithium	0.10		0.025	0.025	mg/L		10/15/22 12:10	10/21/22 01:25	25
Magnesium	780		0.63	0.21	mg/L		10/15/22 12:10	10/21/22 01:25	25
Potassium	200	^3+	13	8.5	mg/L		10/15/22 12:10	10/24/22 16:17	250
Sodium	6100		13	8.0	mg/L		10/15/22 12:10	10/22/22 00:02	250

Client Sample ID: T3-4LT

Date Collected: 09/28/22 08:15
Date Received: 09/29/22 12:40

Lab Sample ID: 680-221861-3
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	110		5.0	2.2	mg/L			10/06/22 22:17	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	110		5.0	5.0	mg/L			10/06/22 22:17	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/06/22 22:17	1
Total Dissolved Solids (SM 2540C-2011)	17000		2000	2000	mg/L			09/29/22 11:31	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.16				SU			09/28/22 08:15	1

Client Sample ID: T4-4L

Date Collected: 09/27/22 17:35
Date Received: 09/29/22 12:40

Lab Sample ID: 680-221861-4
Matrix: Water

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13000		200	40	mg/L			10/14/22 10:47	200
Fluoride	<8.0		20	8.0	mg/L			10/14/22 10:47	200
Sulfate	1500		200	80	mg/L			10/14/22 10:47	200

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0060		0.0063	0.0060	mg/L		10/15/22 12:10	10/21/22 01:28	25
Boron	2.6		0.25	0.0059	mg/L		10/15/22 12:10	10/21/22 01:28	25
Calcium	260		1.3	0.63	mg/L		10/15/22 12:10	10/21/22 01:28	25
Lithium	0.10		0.025	0.025	mg/L		10/15/22 12:10	10/21/22 01:28	25
Magnesium	760		0.63	0.21	mg/L		10/15/22 12:10	10/21/22 01:28	25
Potassium	190	^3+	13	8.5	mg/L		10/15/22 12:10	10/24/22 16:20	250
Sodium	5900		13	8.0	mg/L		10/15/22 12:10	10/22/22 00:05	250

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	130		5.0	2.2	mg/L			10/06/22 21:57	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	130		5.0	5.0	mg/L			10/06/22 21:57	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/06/22 21:57	1
Total Dissolved Solids (SM 2540C-2011)	21000		2000	2000	mg/L			09/29/22 11:31	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.14				SU			09/28/22 17:35	1

Client Sample ID: BG-1LT

Date Collected: 09/28/22 07:49
Date Received: 09/29/22 12:40

Lab Sample ID: 680-221861-5

Matrix: Water

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13000		200	40	mg/L			10/14/22 10:59	200
Fluoride	<8.0		20	8.0	mg/L			10/14/22 10:59	200
Sulfate	1600		200	80	mg/L			10/14/22 10:59	200

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0060		0.0063	0.0060	mg/L		10/15/22 12:10	10/21/22 01:31	25
Boron	2.8		0.25	0.0059	mg/L		10/15/22 12:10	10/21/22 01:31	25
Calcium	260		1.3	0.63	mg/L		10/15/22 12:10	10/21/22 01:31	25
Lithium	0.10		0.025	0.025	mg/L		10/15/22 12:10	10/21/22 01:31	25
Magnesium	780		0.63	0.21	mg/L		10/15/22 12:10	10/21/22 01:31	25
Potassium	200	^3+	13	8.5	mg/L		10/15/22 12:10	10/24/22 16:23	250
Sodium	6000		13	8.0	mg/L		10/15/22 12:10	10/22/22 00:08	250

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	110		5.0	2.2	mg/L			10/06/22 23:37	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	110		5.0	5.0	mg/L			10/06/22 23:37	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/06/22 23:37	1
Total Dissolved Solids (SM 2540C-2011)	20000		2000	2000	mg/L			09/29/22 11:31	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.95				SU			09/28/22 07:49	1

Client Sample ID: DUP-3

Date Collected: 09/28/22 00:00
Date Received: 09/29/22 12:40

Lab Sample ID: 680-221861-6

Matrix: Water

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13000		200	40	mg/L			10/14/22 11:12	200
Fluoride	<8.0		20	8.0	mg/L			10/14/22 11:12	200
Sulfate	1500		200	80	mg/L			10/14/22 11:12	200

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0060		0.0063	0.0060	mg/L		10/15/22 12:10	10/21/22 01:35	25
Boron	2.8		0.25	0.0059	mg/L		10/15/22 12:10	10/21/22 01:35	25
Calcium	260		1.3	0.63	mg/L		10/15/22 12:10	10/21/22 01:35	25
Lithium	0.095		0.025	0.025	mg/L		10/15/22 12:10	10/21/22 01:35	25
Magnesium	780		0.63	0.21	mg/L		10/15/22 12:10	10/21/22 01:35	25
Potassium	200	^3+	13	8.5	mg/L		10/15/22 12:10	10/24/22 16:26	250
Sodium	5900		13	8.0	mg/L		10/15/22 12:10	10/22/22 00:11	250

Client Sample ID: DUP-3

Date Collected: 09/28/22 00:00
Date Received: 09/29/22 12:40

Lab Sample ID: 680-221861-6
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	110		5.0	2.2	mg/L			10/06/22 23:18	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	110		5.0	5.0	mg/L			10/06/22 23:18	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/06/22 23:18	1
Total Dissolved Solids (SM 2540C-2011)	18000		2000	2000	mg/L			09/29/22 11:31	1

Client Sample ID: FB-2

Date Collected: 09/28/22 08:50
Date Received: 09/29/22 12:40

Lab Sample ID: 680-221861-7
Matrix: Water

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/14/22 11:25	1
Fluoride	<0.040		0.10	0.040	mg/L			10/14/22 11:25	1
Sulfate	<0.40		1.0	0.40	mg/L			10/14/22 11:25	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0012		0.0013	0.0012	mg/L		10/15/22 12:10	10/24/22 16:29	5
Boron	<0.0012		0.050	0.0012	mg/L		10/15/22 12:10	10/24/22 16:29	5
Calcium	<0.13		0.25	0.13	mg/L		10/15/22 12:10	10/24/22 16:29	5
Lithium	<0.025		0.025	0.025	mg/L		10/15/22 12:10	10/21/22 01:38	25
Magnesium	<0.041		0.13	0.041	mg/L		10/15/22 12:10	10/22/22 00:14	5
Potassium	<0.17	^3+	0.25	0.17	mg/L		10/15/22 12:10	10/22/22 00:14	5
Sodium	<0.16		0.25	0.16	mg/L		10/15/22 12:10	10/22/22 00:14	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	<2.2		5.0	2.2	mg/L			10/06/22 22:33	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/06/22 22:33	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/06/22 22:33	1
Total Dissolved Solids (SM 2540C-2011)	<10		10	10	mg/L			09/29/22 11:31	1

Client Sample ID: EB-2

Date Collected: 09/28/22 09:00
Date Received: 09/29/22 12:40

Lab Sample ID: 680-221861-8
Matrix: Water

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/14/22 11:37	1
Fluoride	<0.040		0.10	0.040	mg/L			10/14/22 11:37	1
Sulfate	<0.40		1.0	0.40	mg/L			10/14/22 11:37	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0012		0.0013	0.0012	mg/L		10/15/22 12:10	10/24/22 16:33	5

Client: Southern Company
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

Client Sample ID: EB-2

Date Collected: 09/28/22 09:00
Date Received: 09/29/22 12:40

Lab Sample ID: 680-221861-8

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0012		0.050	0.0012	mg/L		10/15/22 12:10	10/24/22 16:33	5
Calcium	<0.13		0.25	0.13	mg/L		10/15/22 12:10	10/24/22 16:33	5
Lithium	<0.025		0.025	0.025	mg/L		10/15/22 12:10	10/21/22 01:41	25
Magnesium	<0.041		0.13	0.041	mg/L		10/15/22 12:10	10/22/22 00:18	5
Potassium	<0.17	^3+	0.25	0.17	mg/L		10/15/22 12:10	10/22/22 00:18	5
Sodium	<0.16		0.25	0.16	mg/L		10/15/22 12:10	10/22/22 00:18	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	<2.2		5.0	2.2	mg/L			10/06/22 22:38	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/06/22 22:38	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/06/22 22:38	1
Total Dissolved Solids (SM 2540C-2011)	<10		10	10	mg/L			09/29/22 11:31	1

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 680-744183/41
Matrix: Water
Analysis Batch: 744183

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/07/22 21:43	1
Fluoride	<0.040		0.10	0.040	mg/L			10/07/22 21:43	1
Sulfate	<0.40		1.0	0.40	mg/L			10/07/22 21:43	1

Lab Sample ID: LCS 680-744183/42
Matrix: Water
Analysis Batch: 744183

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.1		mg/L		101	90 - 110
Fluoride	2.00	1.99		mg/L		100	90 - 110
Sulfate	10.0	9.74		mg/L		97	90 - 110

Lab Sample ID: LCSD 680-744183/43
Matrix: Water
Analysis Batch: 744183

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.1		mg/L		101	90 - 110	0	15
Fluoride	2.00	1.99		mg/L		100	90 - 110	0	15
Sulfate	10.0	9.82		mg/L		98	90 - 110	1	15

Lab Sample ID: 680-221590-G-10 MS
Matrix: Water
Analysis Batch: 744183

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	17		10.0	27.8		mg/L		104	80 - 120
Fluoride	<0.040		2.00	2.06		mg/L		103	80 - 120
Sulfate	24		10.0	34.3		mg/L		101	80 - 120

Lab Sample ID: 680-221590-G-10 MSD
Matrix: Water
Analysis Batch: 744183

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	17		10.0	27.9		mg/L		105	80 - 120	1	15
Fluoride	<0.040		2.00	2.09		mg/L		104	80 - 120	1	15
Sulfate	24		10.0	34.5		mg/L		102	80 - 120	1	15

Lab Sample ID: MB 680-744246/2
Matrix: Water
Analysis Batch: 744246

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/08/22 12:31	1
Fluoride	<0.040		0.10	0.040	mg/L			10/08/22 12:31	1
Sulfate	<0.40		1.0	0.40	mg/L			10/08/22 12:31	1

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 680-744246/3
Matrix: Water
Analysis Batch: 744246

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			10.0	9.84		mg/L		98	90 - 110		
Fluoride			2.00	1.96		mg/L		98	90 - 110		
Sulfate			10.0	9.66		mg/L		97	90 - 110		

Lab Sample ID: LCSD 680-744246/4
Matrix: Water
Analysis Batch: 744246

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			10.0	9.83		mg/L		98	90 - 110	0	15
Fluoride			2.00	1.96		mg/L		98	90 - 110	0	15
Sulfate			10.0	9.64		mg/L		96	90 - 110	0	15

Lab Sample ID: 680-221593-2 MS
Matrix: Water
Analysis Batch: 744246

Client Sample ID: T1-4HTS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride	<1.6		80.0	76.4		mg/L		95	80 - 120		
Sulfate	1500		400	1850		mg/L		96	80 - 120		

Lab Sample ID: 680-221593-2 MSD
Matrix: Water
Analysis Batch: 744246

Client Sample ID: T1-4HTS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	<1.6		80.0	76.2		mg/L		95	80 - 120	0	15
Sulfate	1500		400	1910		mg/L		111	80 - 120	3	15

Lab Sample ID: 680-221593-12 MS
Matrix: Water
Analysis Batch: 744246

Client Sample ID: T4-1HB
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride	<1.6		80.0	76.3		mg/L		95	80 - 120		
Sulfate	1600		400	1990		mg/L		97	80 - 120		

Lab Sample ID: 680-221593-12 MSD
Matrix: Water
Analysis Batch: 744246

Client Sample ID: T4-1HB
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	<1.6		80.0	75.8		mg/L		95	80 - 120	1	15
Sulfate	1600		400	2040		mg/L		111	80 - 120	3	15

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 680-744247/33
Matrix: Water
Analysis Batch: 744247

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/09/22 00:25	1
Fluoride	<0.040		0.10	0.040	mg/L			10/09/22 00:25	1
Sulfate	<0.40		1.0	0.40	mg/L			10/09/22 00:25	1

Lab Sample ID: LCS 680-744247/34
Matrix: Water
Analysis Batch: 744247

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.88		mg/L		99	90 - 110
Fluoride	2.00	1.97		mg/L		99	90 - 110
Sulfate	10.0	9.75		mg/L		97	90 - 110

Lab Sample ID: LCSD 680-744247/35
Matrix: Water
Analysis Batch: 744247

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	9.87		mg/L		99	90 - 110	0	15
Fluoride	2.00	1.97		mg/L		98	90 - 110	0	15
Sulfate	10.0	9.78		mg/L		98	90 - 110	0	15

Lab Sample ID: 680-221593-23 MS
Matrix: Water
Analysis Batch: 744247

Client Sample ID: FB-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	<0.20		10.0	10.0		mg/L		100	80 - 120
Fluoride	<0.040		2.00	2.00		mg/L		100	80 - 120
Sulfate	<0.40		10.0	10.0		mg/L		100	80 - 120

Lab Sample ID: 680-221593-23 MSD
Matrix: Water
Analysis Batch: 744247

Client Sample ID: FB-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	<0.20		10.0	9.74		mg/L		97	80 - 120	3	15
Fluoride	<0.040		2.00	1.95		mg/L		98	80 - 120	2	15
Sulfate	<0.40		10.0	9.72		mg/L		97	80 - 120	3	15

Lab Sample ID: MB 680-744417/2
Matrix: Water
Analysis Batch: 744417

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/10/22 10:32	1
Fluoride	<0.040		0.10	0.040	mg/L			10/10/22 10:32	1
Sulfate	<0.40		1.0	0.40	mg/L			10/10/22 10:32	1

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 680-744417/3
Matrix: Water
Analysis Batch: 744417

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			10.0	10.4		mg/L		104	90 - 110		
Fluoride			2.00	2.14		mg/L		107	90 - 110		
Sulfate			10.0	10.6		mg/L		106	90 - 110		

Lab Sample ID: LCSD 680-744417/4
Matrix: Water
Analysis Batch: 744417

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			10.0	10.4		mg/L		104	90 - 110	0	15
Fluoride			2.00	2.18		mg/L		109	90 - 110	1	15
Sulfate			10.0	10.7		mg/L		107	90 - 110	1	15

Lab Sample ID: MB 680-744497/32
Matrix: Water
Analysis Batch: 744497

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/10/22 19:55	1
Fluoride	<0.040		0.10	0.040	mg/L			10/10/22 19:55	1
Sulfate	<0.40		1.0	0.40	mg/L			10/10/22 19:55	1

Lab Sample ID: LCS 680-744497/33
Matrix: Water
Analysis Batch: 744497

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			10.0	10.4		mg/L		104	90 - 110		
Fluoride			2.00	2.09		mg/L		104	90 - 110		
Sulfate			10.0	10.4		mg/L		104	90 - 110		

Lab Sample ID: LCSD 680-744497/34
Matrix: Water
Analysis Batch: 744497

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			10.0	10.3		mg/L		103	90 - 110	0	15
Fluoride			2.00	2.09		mg/L		105	90 - 110	0	15
Sulfate			10.0	10.5		mg/L		105	90 - 110	1	15

Lab Sample ID: 680-221593-22 MS
Matrix: Water
Analysis Batch: 744497

Client Sample ID: DUP-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	12000		1000	12600	4	mg/L		94	80 - 120		
Fluoride	<4.0		200	205		mg/L		102	80 - 120		
Sulfate	1500		1000	2520		mg/L		104	80 - 120		

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 680-221593-22 MSD
Matrix: Water
Analysis Batch: 744497

Client Sample ID: DUP-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	12000		1000	12600	4	mg/L		92	80 - 120	0	15
Fluoride	<4.0		200	205		mg/L		103	80 - 120	0	15
Sulfate	1500		1000	2510		mg/L		103	80 - 120	0	15

Lab Sample ID: MB 680-744574/2
Matrix: Water
Analysis Batch: 744574

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/11/22 10:23	1
Fluoride	<0.040		0.10	0.040	mg/L			10/11/22 10:23	1
Sulfate	<0.40		1.0	0.40	mg/L			10/11/22 10:23	1

Lab Sample ID: LCS 680-744574/3
Matrix: Water
Analysis Batch: 744574

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.0		mg/L		100	90 - 110
Fluoride	2.00	2.01		mg/L		101	90 - 110
Sulfate	10.0	10.1		mg/L		101	90 - 110

Lab Sample ID: LCSD 680-744574/4
Matrix: Water
Analysis Batch: 744574

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.1		mg/L		101	90 - 110	1	15
Fluoride	2.00	2.04		mg/L		102	90 - 110	2	15
Sulfate	10.0	10.3		mg/L		103	90 - 110	2	15

Lab Sample ID: 680-222027-B-12 MS
Matrix: Water
Analysis Batch: 744574

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	3300		250	3080	4	mg/L		-102	80 - 120
Fluoride	<1.0	F1	50.0	59.5		mg/L		119	80 - 120
Sulfate	18	J	250	297		mg/L		111	80 - 120

Lab Sample ID: 680-222027-B-12 MSD
Matrix: Water
Analysis Batch: 744574

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	3300		250	3250	4	mg/L		-33	80 - 120	5	15
Fluoride	<1.0	F1	50.0	60.9	F1	mg/L		122	80 - 120	2	15
Sulfate	18	J	250	307		mg/L		115	80 - 120	3	15

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 680-745161/2
Matrix: Water
Analysis Batch: 745161

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/14/22 09:43	1
Fluoride	<0.040		0.10	0.040	mg/L			10/14/22 09:43	1
Sulfate	<0.40		1.0	0.40	mg/L			10/14/22 09:43	1

Lab Sample ID: LCS 680-745161/3
Matrix: Water
Analysis Batch: 745161

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			10.0	9.79		mg/L		98	90 - 110		
Fluoride			2.00	1.89		mg/L		95	90 - 110		
Sulfate			10.0	9.40		mg/L		94	90 - 110		

Lab Sample ID: LCSD 680-745161/4
Matrix: Water
Analysis Batch: 745161

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			10.0	9.78		mg/L		98	90 - 110	0	15
Fluoride			2.00	1.90		mg/L		95	90 - 110	1	15
Sulfate			10.0	9.53		mg/L		95	90 - 110	1	15

Lab Sample ID: 660-124143-E-4 MS
Matrix: Water
Analysis Batch: 745161

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	75		10.0	84.9	4	mg/L		98	80 - 120		
Fluoride	0.13		2.00	2.11		mg/L		99	80 - 120		
Sulfate	91		10.0	100	4	mg/L		95	80 - 120		

Lab Sample ID: 660-124143-E-4 MSD
Matrix: Water
Analysis Batch: 745161

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	75		10.0	84.8	4	mg/L		97	80 - 120	0	15
Fluoride	0.13		2.00	2.13		mg/L		100	80 - 120	1	15
Sulfate	91		10.0	100	4	mg/L		95	80 - 120	0	15

Lab Sample ID: 680-222508-A-1 MS
Matrix: Water
Analysis Batch: 745161

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	35		10.0	45.7		mg/L		103	80 - 120		
Fluoride	0.64		2.00	2.56		mg/L		96	80 - 120		
Sulfate	74		10.0	83.6	4	mg/L		96	80 - 120		

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 680-222508-A-1 MSD
Matrix: Water
Analysis Batch: 745161

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	35		10.0	45.8		mg/L		104	80 - 120	0	15
Fluoride	0.64		2.00	2.58		mg/L		97	80 - 120	1	15
Sulfate	74		10.0	83.6	4	mg/L		96	80 - 120	0	15

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography - DL

Lab Sample ID: 680-221593-2 MS
Matrix: Water
Analysis Batch: 744417

Client Sample ID: T1-4HTS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride - DL	12000		1000	13400	4	mg/L		168	80 - 120
Fluoride - DL	<4.0		200	214		mg/L		107	80 - 120
Sulfate - DL	1500	F1	1000	2670	F1	mg/L		122	80 - 120

Lab Sample ID: 680-221593-2 MSD
Matrix: Water
Analysis Batch: 744417

Client Sample ID: T1-4HTS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride - DL	12000		1000	14400	4	mg/L		270	80 - 120	7	15
Fluoride - DL	<4.0		200	231		mg/L		115	80 - 120	8	15
Sulfate - DL	1500	F1	1000	2940	F1	mg/L		149	80 - 120	10	15

Lab Sample ID: 680-221593-12 MS
Matrix: Water
Analysis Batch: 744497

Client Sample ID: T4-1HB
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride - DL	13000		1000	13800	4	mg/L		110	80 - 120
Fluoride - DL	<4.0		200	207		mg/L		103	80 - 120
Sulfate - DL	1600		1000	2670		mg/L		106	80 - 120

Lab Sample ID: 680-221593-12 MSD
Matrix: Water
Analysis Batch: 744497

Client Sample ID: T4-1HB
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride - DL	13000		1000	13800	4	mg/L		108	80 - 120	0	15
Fluoride - DL	<4.0		200	207		mg/L		103	80 - 120	0	15
Sulfate - DL	1600		1000	2680		mg/L		106	80 - 120	0	15

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 400-594103/1-A ^5
Matrix: Water
Analysis Batch: 594519

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 594103

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0012		0.0013	0.0012	mg/L		09/27/22 16:07	09/29/22 21:45	5

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 400-594103/1-A ^5
Matrix: Water
Analysis Batch: 594519

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 594103

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<0.13		0.25	0.13	mg/L		09/27/22 16:07	09/29/22 21:45	5
Magnesium	<0.041		0.13	0.041	mg/L		09/27/22 16:07	09/29/22 21:45	5
Sodium	<0.16		0.25	0.16	mg/L		09/27/22 16:07	09/29/22 21:45	5

Lab Sample ID: MB 400-594103/1-A ^5
Matrix: Water
Analysis Batch: 594696

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 594103

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.0049		0.0050	0.0049	mg/L		09/27/22 16:07	09/30/22 18:44	5

Lab Sample ID: LCS 400-594103/2-A ^5
Matrix: Water
Analysis Batch: 594519

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 594103

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.0500	0.0546		mg/L		109	80 - 120
Calcium	5.00	4.90		mg/L		98	80 - 120
Magnesium	5.00	5.08		mg/L		102	80 - 120
Sodium	5.00	4.82		mg/L		96	80 - 120

Lab Sample ID: LCS 400-594103/2-A ^5
Matrix: Water
Analysis Batch: 594696

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 594103

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.0500	0.0532		mg/L		106	80 - 120

Lab Sample ID: LCS 400-594103/2-A ^5
Matrix: Water
Analysis Batch: 595819

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 594103

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.100	0.112		mg/L		112	80 - 120
Potassium	5.00	5.12		mg/L		102	80 - 120

Lab Sample ID: 680-221593-21 MS
Matrix: Water
Analysis Batch: 594519

Client Sample ID: DUP-1
Prep Type: Total Recoverable
Prep Batch: 594103

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.0026		0.0500	0.0584		mg/L		112	75 - 125
Calcium	280		5.00	285	4	mg/L		106	75 - 125
Magnesium	860		5.00	859	4	mg/L		-99	75 - 125
Sodium	6700		5.00	6590	4	mg/L		-2616	75 - 125

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 680-221593-21 MS
Matrix: Water
Analysis Batch: 594696

Client Sample ID: DUP-1
Prep Type: Total Recoverable
Prep Batch: 594103

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	280		5.00	289	4	mg/L		259	75 - 125
Lithium	0.12	F1	0.0500	0.183	F1	mg/L		136	75 - 125

Lab Sample ID: 680-221593-21 MSD
Matrix: Water
Analysis Batch: 594519

Client Sample ID: DUP-1
Prep Type: Total Recoverable
Prep Batch: 594103

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	0.0026		0.0500	0.0563		mg/L		107	75 - 125	4	20
Calcium	280		5.00	277	4	mg/L		-52	75 - 125	3	20
Magnesium	860		5.00	837	4	mg/L		-525	75 - 125	3	20
Sodium	6700		5.00	6380	4	mg/L		-6800	75 - 125	3	20

Lab Sample ID: 680-221593-21 MSD
Matrix: Water
Analysis Batch: 594696

Client Sample ID: DUP-1
Prep Type: Total Recoverable
Prep Batch: 594103

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	280		5.00	282	4	mg/L		110	75 - 125	3	20
Lithium	0.12	F1	0.0500	0.155		mg/L		79	75 - 125	17	20

Lab Sample ID: MB 400-594691/1-A ^5
Matrix: Water
Analysis Batch: 594928

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 594691

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0012		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 19:15	5
Lithium	<0.0049		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 19:15	5

Lab Sample ID: MB 400-594691/1-A ^5
Matrix: Water
Analysis Batch: 595577

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 594691

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0012		0.0013	0.0012	mg/L		10/02/22 11:35	10/07/22 21:11	5
Magnesium	<0.041		0.13	0.041	mg/L		10/02/22 11:35	10/07/22 21:11	5
Sodium	<0.16		0.25	0.16	mg/L		10/02/22 11:35	10/07/22 21:11	5

Lab Sample ID: MB 400-594691/1-A ^5
Matrix: Water
Analysis Batch: 596288

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 594691

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0012		0.050	0.0012	mg/L		10/02/22 11:35	10/13/22 19:27	5
Calcium	<0.13		0.25	0.13	mg/L		10/02/22 11:35	10/13/22 19:27	5
Potassium	<0.17		0.25	0.17	mg/L		10/02/22 11:35	10/13/22 19:27	5

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 400-594691/2-A ^5
Matrix: Water
Analysis Batch: 594928

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 594691

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.0500	0.0494		mg/L		99	80 - 120
Calcium	5.00	5.08		mg/L		102	80 - 120
Lithium	0.0500	0.0460		mg/L		92	80 - 120
Magnesium	5.00	4.85		mg/L		97	80 - 120
Potassium	5.00	5.38		mg/L		108	80 - 120
Sodium	5.00	4.91		mg/L		98	80 - 120

Lab Sample ID: LCS 400-594691/2-A ^5
Matrix: Water
Analysis Batch: 595577

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 594691

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.100	0.0862		mg/L		86	80 - 120

Lab Sample ID: 680-221590-E-8-B MS ^5
Matrix: Water
Analysis Batch: 594928

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 594691

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1.0	B *+	0.100	1.21	4	mg/L		178	75 - 125
Calcium	93	B	5.00	95.8	4	mg/L		66	75 - 125
Lithium	0.028		0.0500	0.0755		mg/L		95	75 - 125
Magnesium	200	B	5.00	203	4	mg/L		118	75 - 125
Potassium	83	B ^2	5.00	89.4	4	mg/L		120	75 - 125
Sodium	1800	B ^2	5.00	1760	4	mg/L		43	75 - 125

Lab Sample ID: 680-221590-E-8-B MS ^50
Matrix: Water
Analysis Batch: 595577

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 594691

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	<0.012		0.0500	0.0438		mg/L		88	75 - 125
Boron	1.0	B	0.100	1.10	4	mg/L		76	75 - 125
Magnesium	190		5.00	197	4	mg/L		206	75 - 125
Potassium	59	*-	5.00	66.4	4	mg/L		152	75 - 125
Sodium	1800		5.00	1860	4	mg/L		1104	75 - 125

Lab Sample ID: 680-221590-E-8-C MSD ^5
Matrix: Water
Analysis Batch: 594928

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 594691

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	1.0	B *+	0.100	1.17	4	mg/L		139	75 - 125	3	20
Calcium	93	B	5.00	91.6	4	mg/L		-18	75 - 125	5	20
Lithium	0.028		0.0500	0.0727		mg/L		90	75 - 125	4	20
Magnesium	200	B	5.00	194	4	mg/L		-76	75 - 125	5	20
Potassium	83	B ^2	5.00	84.7	4	mg/L		27	75 - 125	5	20
Sodium	1800	B ^2	5.00	1680	4	mg/L		-1571	75 - 125	5	20

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 680-221590-E-8-C MSD ^50
Matrix: Water
Analysis Batch: 595577

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 594691

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	<0.012		0.0500	0.0480		mg/L		96	75 - 125	9	20
Boron	1.0	B	0.100	1.11	4	mg/L		93	75 - 125	1	20
Magnesium	190		5.00	195	4	mg/L		157	75 - 125	1	20
Potassium	59	*-	5.00	64.6	4	mg/L		116	75 - 125	3	20
Sodium	1800		5.00	1840	4	mg/L		681	75 - 125	1	20

Lab Sample ID: MB 400-594692/1-A ^5
Matrix: Water
Analysis Batch: 594928

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 594692

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0012		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 17:11	5
Boron	0.00557	J	0.050	0.0012	mg/L		10/02/22 11:35	10/03/22 17:11	5
Calcium	<0.13		0.25	0.13	mg/L		10/02/22 11:35	10/03/22 17:11	5
Lithium	<0.0049		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 17:11	5
Magnesium	<0.041		0.13	0.041	mg/L		10/02/22 11:35	10/03/22 17:11	5
Potassium	<0.17		0.25	0.17	mg/L		10/02/22 11:35	10/03/22 17:11	5
Sodium	<0.16		0.25	0.16	mg/L		10/02/22 11:35	10/03/22 17:11	5

Lab Sample ID: LCS 400-594692/2-A ^5
Matrix: Water
Analysis Batch: 594928

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 594692

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.0500	0.0471		mg/L		94	80 - 120
Boron	0.100	0.0941		mg/L		94	80 - 120
Calcium	5.00	4.93		mg/L		99	80 - 120
Lithium	0.0500	0.0458		mg/L		92	80 - 120
Magnesium	5.00	4.84		mg/L		97	80 - 120
Potassium	5.00	4.93		mg/L		99	80 - 120
Sodium	5.00	4.64		mg/L		93	80 - 120

Lab Sample ID: 680-221593-11 MS
Matrix: Water
Analysis Batch: 594928

Client Sample ID: T3-4HTS
Prep Type: Total Recoverable
Prep Batch: 594692

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.0021		0.0500	0.0492		mg/L		94	75 - 125
Boron	2.1		0.100	2.20	4 ^+	mg/L		72	75 - 125
Calcium	210		5.00	215	4	mg/L		100	75 - 125
Lithium	0.079		0.0500	0.128		mg/L		98	75 - 125
Magnesium	620		5.00	617	4	mg/L		-69	75 - 125
Potassium	210		5.00	214	4	mg/L		76	75 - 125
Sodium	4900		5.00	4850	4	mg/L		-866	75 - 125

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 680-221593-11 MSD
Matrix: Water
Analysis Batch: 594928

Client Sample ID: T3-4HTS
Prep Type: Total Recoverable
Prep Batch: 594692

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	0.0021		0.0500	0.0501		mg/L		96	75 - 125	2	20
Boron	2.1		0.100	2.36	4 ^+	mg/L		234	75 - 125	7	20
Calcium	210		5.00	224	4	mg/L		286	75 - 125	4	20
Lithium	0.079		0.0500	0.134		mg/L		109	75 - 125	4	20
Magnesium	620		5.00	652	4	mg/L		627	75 - 125	5	20
Potassium	210		5.00	226	4	mg/L		305	75 - 125	5	20
Sodium	4900		5.00	5060	4	mg/L		3359	75 - 125	4	20

Lab Sample ID: MB 400-596445/1-A ^5
Matrix: Water
Analysis Batch: 597203

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 596445

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0012		0.0013	0.0012	mg/L		10/15/22 12:10	10/20/22 23:44	5
Boron	<0.0012		0.050	0.0012	mg/L		10/15/22 12:10	10/20/22 23:44	5
Calcium	<0.13		0.25	0.13	mg/L		10/15/22 12:10	10/20/22 23:44	5
Lithium	<0.0049		0.0050	0.0049	mg/L		10/15/22 12:10	10/20/22 23:44	5
Magnesium	<0.041		0.13	0.041	mg/L		10/15/22 12:10	10/20/22 23:44	5
Potassium	<0.17	^3+	0.25	0.17	mg/L		10/15/22 12:10	10/20/22 23:44	5

Lab Sample ID: MB 400-596445/1-A ^5
Matrix: Water
Analysis Batch: 597436

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 596445

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	<0.16		0.25	0.16	mg/L		10/15/22 12:10	10/21/22 22:02	5

Lab Sample ID: LCS 400-596445/2-A ^5
Matrix: Water
Analysis Batch: 597203

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 596445

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.0500	0.0462		mg/L		92	80 - 120
Calcium	5.00	4.81		mg/L		96	80 - 120
Lithium	0.0500	0.0472		mg/L		94	80 - 120
Magnesium	5.00	4.51		mg/L		90	80 - 120
Potassium	5.00	4.82	^3+	mg/L		96	80 - 120

Lab Sample ID: LCS 400-596445/2-A ^5
Matrix: Water
Analysis Batch: 597672

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 596445

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.100	0.0928		mg/L		93	80 - 120
Sodium	5.00	4.68		mg/L		94	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-226773-G-1-B MS ^25
Matrix: Water
Analysis Batch: 597203

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 596445

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	<0.0060		0.0500	0.0505		mg/L		101	75 - 125
Boron	<0.0059	F1 *-	0.100	0.0759	J	mg/L		76	75 - 125
Calcium	190		5.00	190	4	mg/L		66	75 - 125
Lithium	<0.025	F1	0.0500	0.0666	F1	mg/L		133	75 - 125
Magnesium	17		5.00	21.1		mg/L		90	75 - 125

Lab Sample ID: 400-226773-G-1-B MS ^25
Matrix: Water
Analysis Batch: 597436

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 596445

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	<0.0060		0.0500	0.0470		mg/L		94	75 - 125
Calcium	180		5.00	185	4	mg/L		129	75 - 125
Magnesium	17		5.00	21.3		mg/L		93	75 - 125
Potassium	<0.85	^3+ F1 L *-	5.00	<0.85	F1 ^3+	mg/L		0	75 - 125
Sodium	21		5.00	26.3	4	mg/L		110	75 - 125

Lab Sample ID: 400-226773-G-1-C MSD ^25
Matrix: Water
Analysis Batch: 597203

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 596445

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	<0.0060		0.0500	0.0505		mg/L		101	75 - 125	0	20
Boron	<0.0059	F1 *-	0.100	0.0701	J F1	mg/L		70	75 - 125	8	20
Calcium	190		5.00	188	4	mg/L		15	75 - 125	1	20
Lithium	<0.025	F1	0.0500	0.0672	F1	mg/L		134	75 - 125	1	20
Magnesium	17		5.00	21.2		mg/L		93	75 - 125	1	20

Lab Sample ID: 400-226773-G-1-C MSD ^25
Matrix: Water
Analysis Batch: 597436

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 596445

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	<0.0060		0.0500	0.0435		mg/L		87	75 - 125	8	20
Calcium	180		5.00	182	4	mg/L		73	75 - 125	2	20
Magnesium	17		5.00	21.3		mg/L		93	75 - 125	0	20
Potassium	<0.85	^3+ F1 L *-	5.00	<0.85	^3+ F1	mg/L		0	75 - 125	NC	20
Sodium	21		5.00	25.4	4	mg/L		92	75 - 125	4	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 680-742597/4
Matrix: Water
Analysis Batch: 742597

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<2.2		5.0	2.2	mg/L			09/27/22 18:23	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			09/27/22 18:23	1

Method: 2320B-2011 - Alkalinity, Total (Continued)

Lab Sample ID: MB 680-742597/4
Matrix: Water
Analysis Batch: 742597

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			09/27/22 18:23	1

Lab Sample ID: LCS 680-742597/6
Matrix: Water
Analysis Batch: 742597

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	250	247		mg/L		99	90 - 112

Lab Sample ID: LCSD 680-742597/31
Matrix: Water
Analysis Batch: 742597

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	250	244		mg/L		98	90 - 112	1	30

Lab Sample ID: 680-221590-D-5 DU
Matrix: Water
Analysis Batch: 742597

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	300		293		mg/L		1	30
Bicarbonate Alkalinity as CaCO3	300		293		mg/L		1	30
Carbonate Alkalinity as CaCO3	<5.0		<5.0		mg/L		NC	30

Lab Sample ID: MB 680-742777/4
Matrix: Water
Analysis Batch: 742777

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<2.2		5.0	2.2	mg/L			09/28/22 16:38	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			09/28/22 16:38	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			09/28/22 16:38	1

Lab Sample ID: LCS 680-742777/6
Matrix: Water
Analysis Batch: 742777

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	250	249		mg/L		100	90 - 112

Method: 2320B-2011 - Alkalinity, Total (Continued)

Lab Sample ID: LCSD 680-742777/31
Matrix: Water
Analysis Batch: 742777

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5			250	248		mg/L		99	90 - 112	1	30

Lab Sample ID: 680-221593-2 DU
Matrix: Water
Analysis Batch: 742777

Client Sample ID: T1-4HTS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	100			102		mg/L				0.3	30
Bicarbonate Alkalinity as CaCO3	100			102		mg/L				0.3	30
Carbonate Alkalinity as CaCO3	<5.0			<5.0		mg/L				NC	30

Lab Sample ID: 680-221593-14 DU
Matrix: Water
Analysis Batch: 742777

Client Sample ID: T4-2HB
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	110			109		mg/L				3	30
Bicarbonate Alkalinity as CaCO3	110			109		mg/L				3	30
Carbonate Alkalinity as CaCO3	<5.0			<5.0		mg/L				NC	30

Lab Sample ID: MB 680-743661/4
Matrix: Water
Analysis Batch: 743661

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<2.2		5.0	2.2	mg/L			10/04/22 14:22	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			10/04/22 14:22	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			10/04/22 14:22	1

Lab Sample ID: LCS 680-743661/6
Matrix: Water
Analysis Batch: 743661

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity as CaCO3 to pH 4.5			250	252		mg/L		101	90 - 112		

Lab Sample ID: LCSD 680-743661/31
Matrix: Water
Analysis Batch: 743661

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5			250	247		mg/L		99	90 - 112	2	30

Method: 2320B-2011 - Alkalinity, Total (Continued)

Lab Sample ID: 680-221593-23 DU
Matrix: Water
Analysis Batch: 743661

Client Sample ID: FB-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	<2.2			<2.2		mg/L				NC	30
Bicarbonate Alkalinity as CaCO3	<5.0			<5.0		mg/L				NC	30
Carbonate Alkalinity as CaCO3	<5.0			<5.0		mg/L				NC	30

Lab Sample ID: MB 680-744061/4
Matrix: Water
Analysis Batch: 744061

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<2.2		5.0	2.2	mg/L			10/06/22 20:38	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			10/06/22 20:38	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			10/06/22 20:38	1

Lab Sample ID: LCS 680-744061/6
Matrix: Water
Analysis Batch: 744061

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity as CaCO3 to pH 4.5			250	249		mg/L		100	90 - 112		

Lab Sample ID: LCSD 680-744061/31
Matrix: Water
Analysis Batch: 744061

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5			250	247		mg/L		99	90 - 112	1	30

Lab Sample ID: 680-221861-6 DU
Matrix: Water
Analysis Batch: 744061

Client Sample ID: DUP-3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	110			109		mg/L				0.1	30
Bicarbonate Alkalinity as CaCO3	110			109		mg/L				0.1	30
Carbonate Alkalinity as CaCO3	<5.0			<5.0		mg/L				NC	30

Method: 2540C-2011 - Total Dissolved Solids (Dried at 180 °C)

Lab Sample ID: MB 680-742396/1
Matrix: Water
Analysis Batch: 742396

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			09/27/22 12:02	1

Method: 2540C-2011 - Total Dissolved Solids (Dried at 180 °C) (Continued)

Lab Sample ID: LCS 680-742396/2
Matrix: Water
Analysis Batch: 742396

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			2420	2440		mg/L		101	80 - 120		

Lab Sample ID: LCSD 680-742396/3
Matrix: Water
Analysis Batch: 742396

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			2420	2410		mg/L		100	80 - 120	1	25

Lab Sample ID: 680-221590-C-4 DU
Matrix: Water
Analysis Batch: 742396

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	2100			2010		mg/L				3	5

Lab Sample ID: MB 680-742611/1
Matrix: Water
Analysis Batch: 742611

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			09/28/22 12:20	1

Lab Sample ID: LCS 680-742611/2
Matrix: Water
Analysis Batch: 742611

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			2420	2460		mg/L		102	80 - 120		

Lab Sample ID: LCSD 680-742611/3
Matrix: Water
Analysis Batch: 742611

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			2420	2440		mg/L		101	80 - 120	1	25

Lab Sample ID: 680-221732-C-2 DU
Matrix: Water
Analysis Batch: 742611

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	710			710		mg/L				0.3	5

Lab Sample ID: 680-221762-A-1 DU
Matrix: Water
Analysis Batch: 742611

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	420			424		mg/L				0.9	5

Method: 2540C-2011 - Total Dissolved Solids (Dried at 180 °C)

Lab Sample ID: MB 680-742802/1
Matrix: Water
Analysis Batch: 742802

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			09/29/22 11:31	1

Lab Sample ID: LCS 680-742802/2
Matrix: Water
Analysis Batch: 742802

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			2420	2460		mg/L		102	80 - 120		

Lab Sample ID: LCSD 680-742802/3
Matrix: Water
Analysis Batch: 742802

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			2420	2420		mg/L		100	80 - 120	1	25

Lab Sample ID: 680-221651-O-1 DU
Matrix: Water
Analysis Batch: 742802

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	450			448		mg/L				0.4	5

Lab Sample ID: 680-221651-P-2 DU
Matrix: Water
Analysis Batch: 742802

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	480			460		mg/L				4	5

HPLC/IC

Analysis Batch: 744183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-1	T1-4HT	Total/NA	Water	300.0-1993 R2.1	
MB 680-744183/41	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 680-744183/42	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCSD 680-744183/43	Lab Control Sample Dup	Total/NA	Water	300.0-1993 R2.1	
680-221590-G-10 MS	Matrix Spike	Total/NA	Water	300.0-1993 R2.1	
680-221590-G-10 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0-1993 R2.1	

Analysis Batch: 744246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-2	T1-4HTS	Total/NA	Water	300.0-1993 R2.1	
680-221593-3	T2-1HT	Total/NA	Water	300.0-1993 R2.1	
680-221593-4	T2-2HT	Total/NA	Water	300.0-1993 R2.1	
680-221593-5	T2-2HTS	Total/NA	Water	300.0-1993 R2.1	
680-221593-6	T2-3HT	Total/NA	Water	300.0-1993 R2.1	
680-221593-7	T2-3HTS	Total/NA	Water	300.0-1993 R2.1	
680-221593-8	T2-4HT	Total/NA	Water	300.0-1993 R2.1	
680-221593-9	T2-4HTS	Total/NA	Water	300.0-1993 R2.1	
680-221593-10	T3-4HT	Total/NA	Water	300.0-1993 R2.1	
680-221593-11	T3-4HTS	Total/NA	Water	300.0-1993 R2.1	
680-221593-12	T4-1HB	Total/NA	Water	300.0-1993 R2.1	
680-221593-13	T4-1HS	Total/NA	Water	300.0-1993 R2.1	
680-221593-14	T4-2HB	Total/NA	Water	300.0-1993 R2.1	
680-221593-15	T4-2HS	Total/NA	Water	300.0-1993 R2.1	
680-221593-16	T4-3HB	Total/NA	Water	300.0-1993 R2.1	
680-221593-17	T4-3HS	Total/NA	Water	300.0-1993 R2.1	
680-221593-18	T4-4HB	Total/NA	Water	300.0-1993 R2.1	
680-221593-19	T4-4HS	Total/NA	Water	300.0-1993 R2.1	
680-221593-20	BG-2HT	Total/NA	Water	300.0-1993 R2.1	
680-221593-21	DUP-1	Total/NA	Water	300.0-1993 R2.1	
MB 680-744246/2	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 680-744246/3	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCSD 680-744246/4	Lab Control Sample Dup	Total/NA	Water	300.0-1993 R2.1	
680-221593-2 MS	T1-4HTS	Total/NA	Water	300.0-1993 R2.1	
680-221593-2 MSD	T1-4HTS	Total/NA	Water	300.0-1993 R2.1	
680-221593-12 MS	T4-1HB	Total/NA	Water	300.0-1993 R2.1	
680-221593-12 MSD	T4-1HB	Total/NA	Water	300.0-1993 R2.1	

Analysis Batch: 744247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-22	DUP-2	Total/NA	Water	300.0-1993 R2.1	
680-221593-23	FB-1	Total/NA	Water	300.0-1993 R2.1	
680-221593-24	EB-1	Total/NA	Water	300.0-1993 R2.1	
MB 680-744247/33	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 680-744247/34	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCSD 680-744247/35	Lab Control Sample Dup	Total/NA	Water	300.0-1993 R2.1	
680-221593-23 MS	FB-1	Total/NA	Water	300.0-1993 R2.1	
680-221593-23 MSD	FB-1	Total/NA	Water	300.0-1993 R2.1	

Analysis Batch: 744417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-2 - DL	T1-4HTS	Total/NA	Water	300.0-1993 R2.1	

HPLC/IC (Continued)

Analysis Batch: 744417 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-3 - DL	T2-1HT	Total/NA	Water	300.0-1993 R2.1	
680-221593-4 - DL	T2-2HT	Total/NA	Water	300.0-1993 R2.1	
680-221593-5 - DL	T2-2HTS	Total/NA	Water	300.0-1993 R2.1	
680-221593-6 - DL	T2-3HT	Total/NA	Water	300.0-1993 R2.1	
680-221593-7 - DL	T2-3HTS	Total/NA	Water	300.0-1993 R2.1	
680-221593-9 - DL	T2-4HTS	Total/NA	Water	300.0-1993 R2.1	
680-221593-10 - DL	T3-4HT	Total/NA	Water	300.0-1993 R2.1	
680-221593-11 - DL	T3-4HTS	Total/NA	Water	300.0-1993 R2.1	
MB 680-744417/2	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 680-744417/3	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCSD 680-744417/4	Lab Control Sample Dup	Total/NA	Water	300.0-1993 R2.1	
680-221593-2 MS - DL	T1-4HTS	Total/NA	Water	300.0-1993 R2.1	
680-221593-2 MSD - DL	T1-4HTS	Total/NA	Water	300.0-1993 R2.1	

Analysis Batch: 744497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-12 - DL	T4-1HB	Total/NA	Water	300.0-1993 R2.1	
680-221593-13 - DL	T4-1HS	Total/NA	Water	300.0-1993 R2.1	
680-221593-14 - DL	T4-2HB	Total/NA	Water	300.0-1993 R2.1	
680-221593-15 - DL	T4-2HS	Total/NA	Water	300.0-1993 R2.1	
680-221593-16 - DL	T4-3HB	Total/NA	Water	300.0-1993 R2.1	
680-221593-17 - DL	T4-3HS	Total/NA	Water	300.0-1993 R2.1	
680-221593-18 - DL	T4-4HB	Total/NA	Water	300.0-1993 R2.1	
680-221593-19 - DL	T4-4HS	Total/NA	Water	300.0-1993 R2.1	
680-221593-20 - DL	BG-2HT	Total/NA	Water	300.0-1993 R2.1	
680-221593-21 - DL	DUP-1	Total/NA	Water	300.0-1993 R2.1	
680-221593-22 - DL	DUP-2	Total/NA	Water	300.0-1993 R2.1	
MB 680-744497/32	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 680-744497/33	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCSD 680-744497/34	Lab Control Sample Dup	Total/NA	Water	300.0-1993 R2.1	
680-221593-12 MS - DL	T4-1HB	Total/NA	Water	300.0-1993 R2.1	
680-221593-12 MSD - DL	T4-1HB	Total/NA	Water	300.0-1993 R2.1	
680-221593-22 MS	DUP-2	Total/NA	Water	300.0-1993 R2.1	
680-221593-22 MSD	DUP-2	Total/NA	Water	300.0-1993 R2.1	

Analysis Batch: 744574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-8	T2-4HT	Total/NA	Water	300.0-1993 R2.1	
MB 680-744574/2	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 680-744574/3	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCSD 680-744574/4	Lab Control Sample Dup	Total/NA	Water	300.0-1993 R2.1	
680-222027-B-12 MS	Matrix Spike	Total/NA	Water	300.0-1993 R2.1	
680-222027-B-12 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0-1993 R2.1	

Analysis Batch: 745161

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221861-1	T1-4LT	Total/NA	Water	300.0-1993 R2.1	
680-221861-2	T2-4LT	Total/NA	Water	300.0-1993 R2.1	
680-221861-3	T3-4LT	Total/NA	Water	300.0-1993 R2.1	
680-221861-4	T4-4L	Total/NA	Water	300.0-1993 R2.1	
680-221861-5	BG-1LT	Total/NA	Water	300.0-1993 R2.1	

HPLC/IC (Continued)

Analysis Batch: 745161 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221861-6	DUP-3	Total/NA	Water	300.0-1993 R2.1	
680-221861-7	FB-2	Total/NA	Water	300.0-1993 R2.1	
680-221861-8	EB-2	Total/NA	Water	300.0-1993 R2.1	
MB 680-745161/2	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 680-745161/3	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCSD 680-745161/4	Lab Control Sample Dup	Total/NA	Water	300.0-1993 R2.1	
660-124143-E-4 MS	Matrix Spike	Total/NA	Water	300.0-1993 R2.1	
660-124143-E-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0-1993 R2.1	
680-222508-A-1 MS	Matrix Spike	Total/NA	Water	300.0-1993 R2.1	
680-222508-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0-1993 R2.1	

Metals

Prep Batch: 594103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-21	DUP-1	Total Recoverable	Water	3005A	
680-221593-22	DUP-2	Total Recoverable	Water	3005A	
680-221593-23	FB-1	Total Recoverable	Water	3005A	
680-221593-24	EB-1	Total Recoverable	Water	3005A	
MB 400-594103/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-594103/2-A ^5	Lab Control Sample	Total Recoverable	Water	3005A	
680-221593-21 MS	DUP-1	Total Recoverable	Water	3005A	
680-221593-21 MSD	DUP-1	Total Recoverable	Water	3005A	

Analysis Batch: 594519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-21	DUP-1	Total Recoverable	Water	6020B	594103
680-221593-22	DUP-2	Total Recoverable	Water	6020B	594103
680-221593-23	FB-1	Total Recoverable	Water	6020B	594103
680-221593-24	EB-1	Total Recoverable	Water	6020B	594103
MB 400-594103/1-A ^5	Method Blank	Total Recoverable	Water	6020B	594103
LCS 400-594103/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020B	594103
680-221593-21 MS	DUP-1	Total Recoverable	Water	6020B	594103
680-221593-21 MSD	DUP-1	Total Recoverable	Water	6020B	594103

Prep Batch: 594691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-1	T1-4HT	Total Recoverable	Water	3005A	
680-221593-2	T1-4HTS	Total Recoverable	Water	3005A	
680-221593-3	T2-1HT	Total Recoverable	Water	3005A	
680-221593-4	T2-2HT	Total Recoverable	Water	3005A	
680-221593-5	T2-2HTS	Total Recoverable	Water	3005A	
680-221593-6	T2-3HT	Total Recoverable	Water	3005A	
680-221593-7	T2-3HTS	Total Recoverable	Water	3005A	
680-221593-8	T2-4HT	Total Recoverable	Water	3005A	
680-221593-9	T2-4HTS	Total Recoverable	Water	3005A	
680-221593-10	T3-4HT	Total Recoverable	Water	3005A	
MB 400-594691/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-594691/2-A ^5	Lab Control Sample	Total Recoverable	Water	3005A	
680-221590-E-8-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
680-221590-E-8-B MS ^50	Matrix Spike	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 594691 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-E-8-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	
680-221590-E-8-C MSD ^50	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 594692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-11	T3-4HTS	Total Recoverable	Water	3005A	
680-221593-12	T4-1HB	Total Recoverable	Water	3005A	
680-221593-13	T4-1HS	Total Recoverable	Water	3005A	
680-221593-14	T4-2HB	Total Recoverable	Water	3005A	
680-221593-15	T4-2HS	Total Recoverable	Water	3005A	
680-221593-16	T4-3HB	Total Recoverable	Water	3005A	
680-221593-17	T4-3HS	Total Recoverable	Water	3005A	
680-221593-18	T4-4HB	Total Recoverable	Water	3005A	
680-221593-19	T4-4HS	Total Recoverable	Water	3005A	
680-221593-20	BG-2HT	Total Recoverable	Water	3005A	
MB 400-594692/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-594692/2-A ^5	Lab Control Sample	Total Recoverable	Water	3005A	
680-221593-11 MS	T3-4HTS	Total Recoverable	Water	3005A	
680-221593-11 MSD	T3-4HTS	Total Recoverable	Water	3005A	

Analysis Batch: 594696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-594103/1-A ^5	Method Blank	Total Recoverable	Water	6020B	594103
LCS 400-594103/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020B	594103
680-221593-21 MS	DUP-1	Total Recoverable	Water	6020B	594103
680-221593-21 MSD	DUP-1	Total Recoverable	Water	6020B	594103

Analysis Batch: 594928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-1	T1-4HT	Total Recoverable	Water	6020B	594691
680-221593-2	T1-4HTS	Total Recoverable	Water	6020B	594691
680-221593-3	T2-1HT	Total Recoverable	Water	6020B	594691
680-221593-4	T2-2HT	Total Recoverable	Water	6020B	594691
680-221593-5	T2-2HTS	Total Recoverable	Water	6020B	594691
680-221593-6	T2-3HT	Total Recoverable	Water	6020B	594691
680-221593-7	T2-3HTS	Total Recoverable	Water	6020B	594691
680-221593-8	T2-4HT	Total Recoverable	Water	6020B	594691
680-221593-9	T2-4HTS	Total Recoverable	Water	6020B	594691
680-221593-10	T3-4HT	Total Recoverable	Water	6020B	594691
680-221593-11	T3-4HTS	Total Recoverable	Water	6020B	594692
680-221593-12	T4-1HB	Total Recoverable	Water	6020B	594692
680-221593-13	T4-1HS	Total Recoverable	Water	6020B	594692
680-221593-14	T4-2HB	Total Recoverable	Water	6020B	594692
680-221593-15	T4-2HS	Total Recoverable	Water	6020B	594692
680-221593-16	T4-3HB	Total Recoverable	Water	6020B	594692
680-221593-17	T4-3HS	Total Recoverable	Water	6020B	594692
680-221593-18	T4-4HB	Total Recoverable	Water	6020B	594692
680-221593-19	T4-4HS	Total Recoverable	Water	6020B	594692
680-221593-20	BG-2HT	Total Recoverable	Water	6020B	594692
MB 400-594691/1-A ^5	Method Blank	Total Recoverable	Water	6020B	594691
MB 400-594692/1-A ^5	Method Blank	Total Recoverable	Water	6020B	594692

Metals (Continued)

Analysis Batch: 594928 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-594691/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020B	594691
LCS 400-594692/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020B	594692
680-221590-E-8-B MS ^5	Matrix Spike	Total Recoverable	Water	6020B	594691
680-221590-E-8-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020B	594691
680-221593-11 MS	T3-4HTS	Total Recoverable	Water	6020B	594692
680-221593-11 MSD	T3-4HTS	Total Recoverable	Water	6020B	594692

Analysis Batch: 595577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-1	T1-4HT	Total Recoverable	Water	6020B	594691
680-221593-2	T1-4HTS	Total Recoverable	Water	6020B	594691
680-221593-3	T2-1HT	Total Recoverable	Water	6020B	594691
680-221593-4	T2-2HT	Total Recoverable	Water	6020B	594691
680-221593-5	T2-2HTS	Total Recoverable	Water	6020B	594691
680-221593-6	T2-3HT	Total Recoverable	Water	6020B	594691
680-221593-7	T2-3HTS	Total Recoverable	Water	6020B	594691
680-221593-8	T2-4HT	Total Recoverable	Water	6020B	594691
680-221593-9	T2-4HTS	Total Recoverable	Water	6020B	594691
680-221593-10	T3-4HT	Total Recoverable	Water	6020B	594691
MB 400-594691/1-A ^5	Method Blank	Total Recoverable	Water	6020B	594691
LCS 400-594691/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020B	594691
680-221590-E-8-B MS ^50	Matrix Spike	Total Recoverable	Water	6020B	594691
680-221590-E-8-C MSD ^50	Matrix Spike Duplicate	Total Recoverable	Water	6020B	594691

Analysis Batch: 595819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-12	T4-1HB	Total Recoverable	Water	6020B	594692
680-221593-13	T4-1HS	Total Recoverable	Water	6020B	594692
680-221593-14	T4-2HB	Total Recoverable	Water	6020B	594692
680-221593-15	T4-2HS	Total Recoverable	Water	6020B	594692
680-221593-16	T4-3HB	Total Recoverable	Water	6020B	594692
680-221593-17	T4-3HS	Total Recoverable	Water	6020B	594692
680-221593-18	T4-4HB	Total Recoverable	Water	6020B	594692
680-221593-19	T4-4HS	Total Recoverable	Water	6020B	594692
680-221593-20	BG-2HT	Total Recoverable	Water	6020B	594692
680-221593-21	DUP-1	Total Recoverable	Water	6020B	594103
680-221593-22	DUP-2	Total Recoverable	Water	6020B	594103
680-221593-23	FB-1	Total Recoverable	Water	6020B	594103
680-221593-24	EB-1	Total Recoverable	Water	6020B	594103
LCS 400-594103/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020B	594103

Analysis Batch: 596288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-594691/1-A ^5	Method Blank	Total Recoverable	Water	6020B	594691

Prep Batch: 596445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221861-1	T1-4LT	Total Recoverable	Water	3005A	
680-221861-2	T2-4LT	Total Recoverable	Water	3005A	
680-221861-3	T3-4LT	Total Recoverable	Water	3005A	
680-221861-4	T4-4L	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 596445 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221861-5	BG-1LT	Total Recoverable	Water	3005A	
680-221861-6	DUP-3	Total Recoverable	Water	3005A	
680-221861-7	FB-2	Total Recoverable	Water	3005A	
680-221861-8	EB-2	Total Recoverable	Water	3005A	
MB 400-596445/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-596445/2-A ^5	Lab Control Sample	Total Recoverable	Water	3005A	
400-226773-G-1-B MS ^25	Matrix Spike	Total Recoverable	Water	3005A	
400-226773-G-1-C MSD ^25	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 597203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221861-1	T1-4LT	Total Recoverable	Water	6020B	596445
680-221861-2	T2-4LT	Total Recoverable	Water	6020B	596445
680-221861-3	T3-4LT	Total Recoverable	Water	6020B	596445
680-221861-4	T4-4L	Total Recoverable	Water	6020B	596445
680-221861-5	BG-1LT	Total Recoverable	Water	6020B	596445
680-221861-6	DUP-3	Total Recoverable	Water	6020B	596445
680-221861-7	FB-2	Total Recoverable	Water	6020B	596445
680-221861-8	EB-2	Total Recoverable	Water	6020B	596445
MB 400-596445/1-A ^5	Method Blank	Total Recoverable	Water	6020B	596445
LCS 400-596445/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020B	596445
400-226773-G-1-B MS ^25	Matrix Spike	Total Recoverable	Water	6020B	596445
400-226773-G-1-C MSD ^25	Matrix Spike Duplicate	Total Recoverable	Water	6020B	596445

Analysis Batch: 597436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221861-1	T1-4LT	Total Recoverable	Water	6020B	596445
680-221861-2	T2-4LT	Total Recoverable	Water	6020B	596445
680-221861-3	T3-4LT	Total Recoverable	Water	6020B	596445
680-221861-4	T4-4L	Total Recoverable	Water	6020B	596445
680-221861-5	BG-1LT	Total Recoverable	Water	6020B	596445
680-221861-6	DUP-3	Total Recoverable	Water	6020B	596445
680-221861-7	FB-2	Total Recoverable	Water	6020B	596445
680-221861-8	EB-2	Total Recoverable	Water	6020B	596445
MB 400-596445/1-A ^5	Method Blank	Total Recoverable	Water	6020B	596445
400-226773-G-1-B MS ^25	Matrix Spike	Total Recoverable	Water	6020B	596445
400-226773-G-1-C MSD ^25	Matrix Spike Duplicate	Total Recoverable	Water	6020B	596445

Analysis Batch: 597672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221861-1	T1-4LT	Total Recoverable	Water	6020B	596445
680-221861-2	T2-4LT	Total Recoverable	Water	6020B	596445
680-221861-3	T3-4LT	Total Recoverable	Water	6020B	596445
680-221861-4	T4-4L	Total Recoverable	Water	6020B	596445
680-221861-5	BG-1LT	Total Recoverable	Water	6020B	596445
680-221861-6	DUP-3	Total Recoverable	Water	6020B	596445
680-221861-7	FB-2	Total Recoverable	Water	6020B	596445
680-221861-8	EB-2	Total Recoverable	Water	6020B	596445
LCS 400-596445/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020B	596445

General Chemistry

Analysis Batch: 742396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-1	T1-4HT	Total/NA	Water	2540C-2011	
680-221593-2	T1-4HTS	Total/NA	Water	2540C-2011	
680-221593-3	T2-1HT	Total/NA	Water	2540C-2011	
680-221593-4	T2-2HT	Total/NA	Water	2540C-2011	
680-221593-5	T2-2HTS	Total/NA	Water	2540C-2011	
680-221593-6	T2-3HT	Total/NA	Water	2540C-2011	
680-221593-7	T2-3HTS	Total/NA	Water	2540C-2011	
680-221593-8	T2-4HT	Total/NA	Water	2540C-2011	
MB 680-742396/1	Method Blank	Total/NA	Water	2540C-2011	
LCS 680-742396/2	Lab Control Sample	Total/NA	Water	2540C-2011	
LCSD 680-742396/3	Lab Control Sample Dup	Total/NA	Water	2540C-2011	
680-221590-C-4 DU	Duplicate	Total/NA	Water	2540C-2011	

Analysis Batch: 742597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-1	T1-4HT	Total/NA	Water	2320B-2011	
MB 680-742597/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-742597/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-742597/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-221590-D-5 DU	Duplicate	Total/NA	Water	2320B-2011	

Analysis Batch: 742611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-9	T2-4HTS	Total/NA	Water	2540C-2011	
680-221593-10	T3-4HT	Total/NA	Water	2540C-2011	
680-221593-11	T3-4HTS	Total/NA	Water	2540C-2011	
680-221593-12	T4-1HB	Total/NA	Water	2540C-2011	
680-221593-13	T4-1HS	Total/NA	Water	2540C-2011	
680-221593-14	T4-2HB	Total/NA	Water	2540C-2011	
680-221593-15	T4-2HS	Total/NA	Water	2540C-2011	
680-221593-16	T4-3HB	Total/NA	Water	2540C-2011	
680-221593-17	T4-3HS	Total/NA	Water	2540C-2011	
680-221593-18	T4-4HB	Total/NA	Water	2540C-2011	
680-221593-19	T4-4HS	Total/NA	Water	2540C-2011	
680-221593-20	BG-2HT	Total/NA	Water	2540C-2011	
680-221593-21	DUP-1	Total/NA	Water	2540C-2011	
680-221593-22	DUP-2	Total/NA	Water	2540C-2011	
680-221593-23	FB-1	Total/NA	Water	2540C-2011	
680-221593-24	EB-1	Total/NA	Water	2540C-2011	
MB 680-742611/1	Method Blank	Total/NA	Water	2540C-2011	
LCS 680-742611/2	Lab Control Sample	Total/NA	Water	2540C-2011	
LCSD 680-742611/3	Lab Control Sample Dup	Total/NA	Water	2540C-2011	
680-221732-C-2 DU	Duplicate	Total/NA	Water	2540C-2011	
680-221762-A-1 DU	Duplicate	Total/NA	Water	2540C-2011	

Analysis Batch: 742777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-2	T1-4HTS	Total/NA	Water	2320B-2011	
680-221593-3	T2-1HT	Total/NA	Water	2320B-2011	
680-221593-4	T2-2HT	Total/NA	Water	2320B-2011	
680-221593-5	T2-2HTS	Total/NA	Water	2320B-2011	

General Chemistry (Continued)

Analysis Batch: 742777 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-6	T2-3HT	Total/NA	Water	2320B-2011	
680-221593-7	T2-3HTS	Total/NA	Water	2320B-2011	
680-221593-8	T2-4HT	Total/NA	Water	2320B-2011	
680-221593-9	T2-4HTS	Total/NA	Water	2320B-2011	
680-221593-10	T3-4HT	Total/NA	Water	2320B-2011	
680-221593-11	T3-4HTS	Total/NA	Water	2320B-2011	
680-221593-12	T4-1HB	Total/NA	Water	2320B-2011	
680-221593-13	T4-1HS	Total/NA	Water	2320B-2011	
680-221593-14	T4-2HB	Total/NA	Water	2320B-2011	
MB 680-742777/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-742777/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-742777/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-221593-2 DU	T1-4HTS	Total/NA	Water	2320B-2011	
680-221593-14 DU	T4-2HB	Total/NA	Water	2320B-2011	

Analysis Batch: 742802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221861-1	T1-4LT	Total/NA	Water	2540C-2011	
680-221861-2	T2-4LT	Total/NA	Water	2540C-2011	
680-221861-3	T3-4LT	Total/NA	Water	2540C-2011	
680-221861-4	T4-4L	Total/NA	Water	2540C-2011	
680-221861-5	BG-1LT	Total/NA	Water	2540C-2011	
680-221861-6	DUP-3	Total/NA	Water	2540C-2011	
680-221861-7	FB-2	Total/NA	Water	2540C-2011	
680-221861-8	EB-2	Total/NA	Water	2540C-2011	
MB 680-742802/1	Method Blank	Total/NA	Water	2540C-2011	
LCS 680-742802/2	Lab Control Sample	Total/NA	Water	2540C-2011	
LCSD 680-742802/3	Lab Control Sample Dup	Total/NA	Water	2540C-2011	
680-221651-O-1 DU	Duplicate	Total/NA	Water	2540C-2011	
680-221651-P-2 DU	Duplicate	Total/NA	Water	2540C-2011	

Analysis Batch: 743661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-15	T4-2HS	Total/NA	Water	2320B-2011	
680-221593-16	T4-3HB	Total/NA	Water	2320B-2011	
680-221593-17	T4-3HS	Total/NA	Water	2320B-2011	
680-221593-18	T4-4HB	Total/NA	Water	2320B-2011	
680-221593-19	T4-4HS	Total/NA	Water	2320B-2011	
680-221593-20	BG-2HT	Total/NA	Water	2320B-2011	
680-221593-21	DUP-1	Total/NA	Water	2320B-2011	
680-221593-22	DUP-2	Total/NA	Water	2320B-2011	
680-221593-23	FB-1	Total/NA	Water	2320B-2011	
680-221593-24	EB-1	Total/NA	Water	2320B-2011	
MB 680-743661/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-743661/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-743661/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-221593-23 DU	FB-1	Total/NA	Water	2320B-2011	

Analysis Batch: 744061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221861-1	T1-4LT	Total/NA	Water	2320B-2011	

General Chemistry (Continued)

Analysis Batch: 744061 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221861-2	T2-4LT	Total/NA	Water	2320B-2011	
680-221861-3	T3-4LT	Total/NA	Water	2320B-2011	
680-221861-4	T4-4L	Total/NA	Water	2320B-2011	
680-221861-5	BG-1LT	Total/NA	Water	2320B-2011	
680-221861-6	DUP-3	Total/NA	Water	2320B-2011	
680-221861-7	FB-2	Total/NA	Water	2320B-2011	
680-221861-8	EB-2	Total/NA	Water	2320B-2011	
MB 680-744061/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-744061/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-744061/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-221861-6 DU	DUP-3	Total/NA	Water	2320B-2011	

Field Service / Mobile Lab

Analysis Batch: 742126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-1	T1-4HT	Total/NA	Water	Field Sampling	
680-221593-2	T1-4HTS	Total/NA	Water	Field Sampling	
680-221593-3	T2-1HT	Total/NA	Water	Field Sampling	
680-221593-4	T2-2HT	Total/NA	Water	Field Sampling	
680-221593-5	T2-2HTS	Total/NA	Water	Field Sampling	
680-221593-6	T2-3HT	Total/NA	Water	Field Sampling	
680-221593-7	T2-3HTS	Total/NA	Water	Field Sampling	
680-221593-8	T2-4HT	Total/NA	Water	Field Sampling	
680-221593-9	T2-4HTS	Total/NA	Water	Field Sampling	
680-221593-10	T3-4HT	Total/NA	Water	Field Sampling	
680-221593-11	T3-4HTS	Total/NA	Water	Field Sampling	
680-221593-12	T4-1HB	Total/NA	Water	Field Sampling	
680-221593-13	T4-1HS	Total/NA	Water	Field Sampling	
680-221593-14	T4-2HB	Total/NA	Water	Field Sampling	
680-221593-15	T4-2HS	Total/NA	Water	Field Sampling	
680-221593-16	T4-3HB	Total/NA	Water	Field Sampling	
680-221593-17	T4-3HS	Total/NA	Water	Field Sampling	
680-221593-18	T4-4HB	Total/NA	Water	Field Sampling	
680-221593-19	T4-4HS	Total/NA	Water	Field Sampling	
680-221593-20	BG-2HT	Total/NA	Water	Field Sampling	

Analysis Batch: 743581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221861-1	T1-4LT	Total/NA	Water	Field Sampling	
680-221861-2	T2-4LT	Total/NA	Water	Field Sampling	
680-221861-3	T3-4LT	Total/NA	Water	Field Sampling	
680-221861-4	T4-4L	Total/NA	Water	Field Sampling	
680-221861-5	BG-1LT	Total/NA	Water	Field Sampling	

Client Sample ID: T1-4HT

Date Collected: 09/22/22 09:49
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		250	5 mL	5 mL	744183	10/08/22 02:59	UI	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 20:51	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595577	10/07/22 22:01	NTH	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 22:26	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 09:49	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: T1-4HTS

Date Collected: 09/22/22 09:43
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 18:18	AF	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744417	10/10/22 17:11	UI	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 20:54	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595577	10/07/22 22:04	NTH	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			742777	09/28/22 17:05	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 09:43	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: T2-1HT

Date Collected: 09/22/22 08:40
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 18:56	AF	EET SAV
	Instrument ID: CICK									

Client Sample ID: T2-1HT

Lab Sample ID: 680-221593-3

Date Collected: 09/22/22 08:40

Matrix: Water

Date Received: 09/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744417	10/10/22 17:49	UI	EET SAV
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 20:57	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595577	10/07/22 22:07	NTH	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			742777	09/28/22 18:03	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 08:40	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: T2-2HT

Lab Sample ID: 680-221593-4

Date Collected: 09/22/22 08:50

Matrix: Water

Date Received: 09/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 19:09	AF	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744417	10/10/22 18:01	UI	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 21:00	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595577	10/07/22 22:10	NTH	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			742777	09/28/22 17:43	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 08:50	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: T2-2HTS

Lab Sample ID: 680-221593-5

Date Collected: 09/22/22 08:44

Matrix: Water

Date Received: 09/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 19:22	AF	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744417	10/10/22 18:14	UI	EET SAV
	Instrument ID: CICK									

Lab Chronicle

Client: Southern Company
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

Client Sample ID: T2-2HTS

Lab Sample ID: 680-221593-5

Date Collected: 09/22/22 08:44

Matrix: Water

Date Received: 09/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 21:03	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595577	10/07/22 22:13	NTH	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			742777	09/28/22 17:24	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 08:44	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: T2-3HT

Lab Sample ID: 680-221593-6

Date Collected: 09/22/22 09:05

Matrix: Water

Date Received: 09/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 19:34	AF	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744417	10/10/22 18:27	UI	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 21:06	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595577	10/07/22 22:16	NTH	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			742777	09/28/22 18:13	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 09:05	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: T2-3HTS

Lab Sample ID: 680-221593-7

Date Collected: 09/22/22 09:00

Matrix: Water

Date Received: 09/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 19:47	AF	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744417	10/10/22 18:39	UI	EET SAV
	Instrument ID: CICK									

Client Sample ID: T2-3HTS

Lab Sample ID: 680-221593-7

Date Collected: 09/22/22 09:00

Matrix: Water

Date Received: 09/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 21:34	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595577	10/07/22 22:20	NTH	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			742777	09/28/22 17:53	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 09:00	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: T2-4HT

Lab Sample ID: 680-221593-8

Date Collected: 09/22/22 09:35

Matrix: Water

Date Received: 09/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 20:00	AF	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	300.0-1993 R2.1		500	5 mL	5 mL	744574	10/11/22 12:03	AF	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 21:37	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595577	10/07/22 22:23	NTH	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			742777	09/28/22 17:33	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 09:35	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: T2-4HTS

Lab Sample ID: 680-221593-9

Date Collected: 09/22/22 09:30

Matrix: Water

Date Received: 09/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 20:12	AF	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744417	10/10/22 19:05	UI	EET SAV
	Instrument ID: CICK									

Client Sample ID: T2-4HTS

Lab Sample ID: 680-221593-9

Date Collected: 09/22/22 09:30

Matrix: Water

Date Received: 09/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 21:40	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595577	10/07/22 22:26	NTH	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			742777	09/28/22 18:23	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 09:30	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: T3-4HT

Lab Sample ID: 680-221593-10

Date Collected: 09/22/22 09:22

Matrix: Water

Date Received: 09/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 20:25	AF	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744417	10/10/22 19:17	UI	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 21:43	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595577	10/07/22 22:47	NTH	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			742777	09/28/22 18:43	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 09:22	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: T3-4HTS

Lab Sample ID: 680-221593-11

Date Collected: 09/22/22 09:17

Matrix: Water

Date Received: 09/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 20:38	AF	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744417	10/10/22 19:30	UI	EET SAV
	Instrument ID: CICK									

Lab Chronicle

Client: Southern Company
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

Client Sample ID: T3-4HTS
Date Collected: 09/22/22 09:17
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 17:18	NTH	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			742777	09/28/22 18:33	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 09:17	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: T4-1HB
Date Collected: 09/22/22 07:20
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 21:28	AF	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744497	10/10/22 20:33	UI	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 17:58	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595819	10/10/22 14:27	BAW	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			742777	09/28/22 19:44	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 07:20	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: T4-1HS
Date Collected: 09/22/22 07:12
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 22:06	AF	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744497	10/10/22 21:11	UI	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 18:01	NTH	EET PEN
	Instrument ID: Athena									

Client Sample ID: T4-1HS

Date Collected: 09/22/22 07:12
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595819	10/10/22 14:30	BAW	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			742777	09/28/22 19:34	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 07:12	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: T4-2HB

Date Collected: 09/22/22 07:36
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 22:19	AF	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744497	10/10/22 21:24	UI	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 18:04	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595819	10/10/22 14:33	BAW	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			742777	09/28/22 19:14	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 07:36	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: T4-2HS

Date Collected: 09/22/22 07:30
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 22:31	AF	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744497	10/10/22 21:36	UI	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 18:07	NTH	EET PEN
	Instrument ID: Athena									

Lab Chronicle

Client: Southern Company
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

Client Sample ID: T4-2HS

Date Collected: 09/22/22 07:30
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595819	10/10/22 14:36	BAW	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			743661	10/04/22 15:27	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 07:30	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: T4-3HB

Date Collected: 09/22/22 07:50
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-16

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 22:44	AF	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744497	10/10/22 21:49	UI	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 18:10	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595819	10/10/22 15:23	BAW	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			743661	10/04/22 15:07	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 07:50	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: T4-3HS

Date Collected: 09/22/22 07:43
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-17

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 22:57	AF	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744497	10/10/22 22:02	UI	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 18:13	NTH	EET PEN
	Instrument ID: Athena									

Client Sample ID: T4-3HS

Date Collected: 09/22/22 07:43
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-17
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595819	10/10/22 15:42	BAW	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			743661	10/04/22 15:36	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 07:43	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: T4-4HB

Date Collected: 09/22/22 08:08
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-18
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 23:09	AF	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744497	10/10/22 22:14	UI	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 18:16	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595819	10/10/22 15:51	BAW	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			743661	10/04/22 15:57	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 08:08	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: T4-4HS

Date Collected: 09/22/22 08:00
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-19
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 23:22	AF	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744497	10/10/22 22:27	UI	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 18:19	NTH	EET PEN
	Instrument ID: Athena									

Lab Chronicle

Client: Southern Company
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

Client Sample ID: T4-4HS

Date Collected: 09/22/22 08:00
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-19

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595819	10/10/22 15:54	BAW	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			743661	10/04/22 15:17	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 08:00	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: BG-2HT

Date Collected: 09/22/22 08:23
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-20

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 23:35	AF	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744497	10/10/22 22:40	UI	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 18:47	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595819	10/10/22 15:57	BAW	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			743661	10/04/22 15:46	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 08:23	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: DUP-1

Date Collected: 09/22/22 00:00
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-21

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 23:47	AF	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744497	10/10/22 22:52	UI	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	594103	09/27/22 16:07	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			594519	09/29/22 21:51	NTH	EET PEN
	Instrument ID: Athena									

Client Sample ID: DUP-1

Date Collected: 09/22/22 00:00
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-21

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	594103	09/27/22 16:07	KWN	EET PEN
Total Recoverable	Analysis	6020B		500			595819	10/10/22 16:10	BAW	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			743661	10/04/22 16:07	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: DUP-2

Date Collected: 09/22/22 00:00
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-22

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744247	10/09/22 01:54	AF	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744497	10/10/22 23:30	UI	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	594103	09/27/22 16:07	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			594519	09/29/22 22:06	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	594103	09/27/22 16:07	KWN	EET PEN
Total Recoverable	Analysis	6020B		500			595819	10/10/22 16:13	BAW	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			743661	10/04/22 16:16	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: FB-1

Date Collected: 09/22/22 10:30
Date Received: 09/23/22 10:40

Lab Sample ID: 680-221593-23

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	744247	10/09/22 01:16	AF	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	594103	09/27/22 16:07	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			594519	09/29/22 22:09	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	594103	09/27/22 16:07	KWN	EET PEN
Total Recoverable	Analysis	6020B		50			595819	10/10/22 16:16	BAW	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			743661	10/04/22 14:45	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	200 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: EB-1

Lab Sample ID: 680-221593-24

Date Collected: 09/22/22 10:25

Matrix: Water

Date Received: 09/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	744247	10/09/22 02:07	AF	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	594103	09/27/22 16:07	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			594519	09/29/22 22:37	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	594103	09/27/22 16:07	KWN	EET PEN
Total Recoverable	Analysis	6020B		50			595819	10/10/22 16:34	BAW	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			743661	10/04/22 14:56	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	200 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: T1-4LT

Lab Sample ID: 680-221861-1

Date Collected: 09/28/22 07:59

Matrix: Water

Date Received: 09/29/22 12:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		200	5 mL	5 mL	745161	10/14/22 15:38	AF	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		25			597203	10/21/22 01:19	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		250			597436	10/21/22 23:24	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		250			597672	10/24/22 15:45	NTH	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			744061	10/06/22 22:07	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742802	09/29/22 11:31	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			743581	09/28/22 07:59	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: T2-4LT

Lab Sample ID: 680-221861-2

Date Collected: 09/28/22 08:07

Matrix: Water

Date Received: 09/29/22 12:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		200	5 mL	5 mL	745161	10/14/22 15:50	AF	EET SAV
	Instrument ID: CICK									

Lab Chronicle

Client: Southern Company
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

Client Sample ID: T2-4LT

Date Collected: 09/28/22 08:07
Date Received: 09/29/22 12:40

Lab Sample ID: 680-221861-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		25			597203	10/21/22 01:22	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		250			597436	10/21/22 23:59	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		250			597672	10/24/22 15:48	NTH	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			744061	10/06/22 22:27	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742802	09/29/22 11:31	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			743581	09/28/22 08:07	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: T3-4LT

Date Collected: 09/28/22 08:15
Date Received: 09/29/22 12:40

Lab Sample ID: 680-221861-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		200	5 mL	5 mL	745161	10/14/22 10:34	AF	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		25			597203	10/21/22 01:25	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		250			597436	10/22/22 00:02	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		250			597672	10/24/22 16:17	NTH	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			744061	10/06/22 22:17	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742802	09/29/22 11:31	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			743581	09/28/22 08:15	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: T4-4L

Lab Sample ID: 680-221861-4

Date Collected: 09/27/22 17:35

Matrix: Water

Date Received: 09/29/22 12:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		200	5 mL	5 mL	745161	10/14/22 10:47	AF	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		25			597203	10/21/22 01:28	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		250			597436	10/22/22 00:05	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		250			597672	10/24/22 16:20	NTH	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			744061	10/06/22 21:57	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742802	09/29/22 11:31	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			743581	09/28/22 17:35	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: BG-1LT

Lab Sample ID: 680-221861-5

Date Collected: 09/28/22 07:49

Matrix: Water

Date Received: 09/29/22 12:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		200	5 mL	5 mL	745161	10/14/22 10:59	AF	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		25			597203	10/21/22 01:31	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		250			597436	10/22/22 00:08	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		250			597672	10/24/22 16:23	NTH	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			744061	10/06/22 23:37	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742802	09/29/22 11:31	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			743581	09/28/22 07:49	T1C	EET SAV
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

Client Sample ID: DUP-3

Date Collected: 09/28/22 00:00
Date Received: 09/29/22 12:40

Lab Sample ID: 680-221861-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		200	5 mL	5 mL	745161	10/14/22 11:12	AF	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		25			597203	10/21/22 01:35	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		250			597436	10/22/22 00:11	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		250			597672	10/24/22 16:26	NTH	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			744061	10/06/22 23:18	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742802	09/29/22 11:31	PG	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: FB-2

Date Collected: 09/28/22 08:50
Date Received: 09/29/22 12:40

Lab Sample ID: 680-221861-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	745161	10/14/22 11:25	AF	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		25			597203	10/21/22 01:38	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		5			597436	10/22/22 00:14	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		5			597672	10/24/22 16:29	NTH	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			744061	10/06/22 22:33	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	200 mL	200 mL	742802	09/29/22 11:31	PG	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: EB-2

Date Collected: 09/28/22 09:00
Date Received: 09/29/22 12:40

Lab Sample ID: 680-221861-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	745161	10/14/22 11:37	AF	EET SAV
	Instrument ID: CICK									

Lab Chronicle

Client: Southern Company
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

Client Sample ID: EB-2

Date Collected: 09/28/22 09:00
Date Received: 09/29/22 12:40

Lab Sample ID: 680-221861-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		25			597203	10/21/22 01:41	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		5			597436	10/22/22 00:18	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		5			597672	10/24/22 16:33	NTH	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2320B-2011		1			744061	10/06/22 22:38	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	200 mL	200 mL	742802	09/29/22 11:31	PG	EET SAV
	Instrument ID: NOEQUIP									

[1] Completion dates and times are reported or not reported per method requirements or individual lab discretion.

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Southern Company
Job ID: 680-221593-1
Project/Site: Plant McManus Surface Water

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Georgia	State	E87052	06-30-23

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

Method Summary

Client: Southern Company
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

Method	Method Description	Protocol	Laboratory
300.0-1993 R2.1	Anions, Ion Chromatography	MCAWW	EET SAV
6020B	Metals (ICP/MS)	SW846	EET PEN
2320B-2011	Alkalinity, Total	SM	EET SAV
2540C-2011	Total Dissolved Solids (Dried at 180 °C)	SM	EET SAV
Field Sampling	Field Sampling	EPA	EET SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET PEN

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

244-ATLANTA

Client Information	Sampler: Meredith Duncan, Will Lawler	Lab PM: Fuller, David	Carrier Tracking No(s):	COC No: 680-138977-50656 1
Client Contact: Kristen Jurinko	Phone: 470-895-0650	E-Mail: David.Fuller@et.eurofinsus.com	State of Origin: GA	Page: Page 1 of 4
Company: Southern Company	PWSID:			Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone: 404-506-7116(Tel)	Lab Project #: 68027841			
Email: KNJURINK@SOUTHERNCO COM	Lab PO #: GPC82130-0001			
Project Name: Plant McManus Surface Water	Project #:			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B - Metals - Select List - SAV	300_ORGFM_28D - Chloride Fluoride Sulfate	2320B - Alkalinity, Total, Carb/Bicarb	6020B - Metals - Select List - PIT	2540C - Solids, Total Dissolved (TDS)	Total Number of containers	Special Instructions/Note:
			Preservation Code				D	N	N	D	N		PH
T1-4HT	9/22/22	0949	G	Water			X	X	X	X	X	5	6.98
T1-4HTS	9/22/22	0943	G	Water			X	X	X	X	X	5	7.03
T2-1HT	9/22/22	0840	G	Water			X	X	X	X	X	5	7.28
T2-2HT	9/22/22	0850	G	Water			X	X	X	X	X	5	6.99
T2-2HTS	9/22/22	0844	G	Water			X	X	X	X	X	5	7.06
T2-3HT	9/22/22	0905	G	Water			X	X	X	X	X	5	6.97
T2-3HTS	9/22/22	0900	G	Water			X	X	X	X	X	5	7.03
T2-4HT	9/22/22	0935	G	Water			X	X	X	X	X	5	7.01
T2-4HTS	9/22/22	0930	G	Water			X	X	X	X	X	5	7.04
T3-4HT	9/22/22	0922	G	Water			X	X	X	X	X	5	6.98
T3-4HTS	9/22/22	0917	G	Water			X	X	X	X	X	5	7.09

680-221593 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 n.
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II III, IV, Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
William Lawler	9/23/22 0910	Resolute		9/23/22 0910	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
				9-23-22 1040	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:
		1.9/1.8 1.3/1.2 2.4/2.3

Ver: 01/16/2019

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

244- ATLANTA

eurofins Environment Testing America

Client Information	Sampler: Meredith Duncan, Will Lasker	Lab PM: Fuller, David	Carrier Tracking No(s):	COC No: 680-138977-50656.2
Client Contact: Kristen Jurinko	Phone: 470-895-0650	E-Mail: David.Fuller@et.eurofinsus.com	State of Origin: GA	Page: Page 2 of 4
Company: Southern Company	PWSID:	Analysis Requested		Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:			Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone: 404-506-7116(Tel)	Lab Project #: 68027841			
Email: KNJURINK@SOUTHERNCO COM	Lab PO #: GPC82130-0001			
Project Name: Plant McManus Surface Water	Project #:			Other:
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B - Metals - Select List - SAV	300_ORGFM_28D - Chloride Fluoride Sulfate	2320B - Alkalinity, Total, Carb/Bicarb	6020B - Metals - Select List - PIT	2540C - Solids, Total Dissolved (TDS)	Total Number of containers	Special Instructions/Note: pH
Preservation Code:							D	N	N	D	N		
T4-1HB	9/22/22	0720	G	Water			X	X	X	X	X	5	6 85
T4-1HS	9/22/22	0712	G	Water			X	X	X	X	X	5	6 59
T4-2HB	9/22/22	0736	G	Water			X	X	X	X	X	5	6 98
T4-2HS	9/22/22	0730	G	Water			X	X	X	X	X	5	6 96
T4-3HB	9/22/22	0750	G	Water			X	X	X	X	X	5	6 97
T4-3HS	9/22/22	0743	G	Water			X	X	X	X	X	5	7 01
T4-4HB	9/22/22	0808	G	Water			X	X	X	X	X	5	7 06
T4-4HS	9/22/22	0800	G	Water			X	X	X	X	X	5	7 03
T1-4LT				Water									
T2-4LT				Water									
T3-4LT				Water									

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
William Lasker	9/23/22 0910	Resolute		9/23/22 9:10	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 9-23-22 1040	Company TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver 01/16/2019

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

244- ATLANTA

Client Information	Sampler: Meredith Duncan, Will Laaker	Lab PM: Fuller, David	Carrier Tracking No(s):	COC No: 680-138977-50656.3
Client Contact: Kristen Jurinko	Phone: 470-895-0650	E-Mail: David.Fuller@et.eurofinsus.com	State of Origin: GA	Page: Page 3 of 4
Company: Southern Company	PWSID:			Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone: 404-506-7116(Tel)	Lab Project #: 68027841			
Email: KNJURINK@SOUTHERNCO COM	Lab PO #: GPC82130-0001			
Project Name: Plant McManus Surface Water	Project #:			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B - Metals - Select List - SAV	300_ORGFM_28D - Chloride Fluoride Sulfate	2320B - Alkalinity, Total, Carb/Bicarb	6020B - Metals - Select List - PIT	2540C - Solids, Total Dissolved (TDS)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D	N		pH
T4-4L				Water									
BG-1LT				Water									
BG-2HT	9/22/22	0823	G	Water			X	X	X	X	X	5	7 12
DUP-1	9/22/22	—	G	Water			X	X	X	X	X	5	
DUP-2	9/22/22	—	G	Water			X	X	X	X	X	5	
DUP-3				Water									
FB-1	9/22/22	1030	G	Water			X	X	X	X	X	5	
EB-1	9/22/22	1025	G	Water			X	X	X	X	X	5	
Extra 1				Water									
Extra 2				Water									
Extra 3				Water									

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II III, IV, Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
William Laaker	9/23/22 0910	Resolute		9/23/22 9:10	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 9-23-22 1040	Company TR
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver 01/16/2019

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins Environment Testing America

244-ATLANTA

Client Information	Sampler: Will Laaker, Meredith Duncan	Lab PM: Fuller, David	Carrier Tracking No(s):	COC No: 680-389775-0656.4
Client Contact: Kristen Jurinko	Phone: 470-895-0650	E-Mail: David.Fuller@et.eurofinsus.com	State of Origin: GA	Page: Page 4 of 4
Company: Southern Company	PWSID:			Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone: 404-506-7116(Tel)	Lab Project #: 68027841			
Email: KNJURINK@SOUTHERNCO.COM	Lab PO #: GPC82130-0001			
Project Name: Plant McManus Surface Water	Project #:			
Site:	SSOW#:			

Analysis Requested

Preservation Codes.

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B - Metals - Select List - SAV	300_ORGFM_28D - Chloride Fluoride Sulfate	2320B - Alkalinity, Total, Carb/Blcarb	6020B - Metals - Select List - PIT	2540C - Solids, Total Dissolved (TDS)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D	N		pH
Extra 4				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II, III IV, Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
William Laaker	9/23/22 0910	Resolute		9/24/22 9:10	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
				9-23-22 1040	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No..	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

244-ATLANTA

Client Information	Sampler: Meredith Duncan, Will Lacker	Lab PM: Fuller, David	Carrier Tracking No(s):	COC No: 680-138977-50656.1
Client Contact: Kristen Jurinko	Phone: 470-895-0650	E-Mail: David.Fuller@et.eurofinsus.com	State of Origin: GA	Page: Page 1 of 4
Company: Southern Company	PWSID:			Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone: 404-506-7116(Tel)	Lab Project #: 68027841			
Email: KNJURINK@SOUTHERNCO COM	Lab PO #: GPC82130-0001			
Project Name: Plant McManus Surface Water	Project #:			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B - Metals - Select List - SAV	300_ORGFM_28D - Chloride Fluoride Sulfate	2320B - Alkalinity, Total, Carb/Bicarb	6020B - Metals - Select List - PIT	2540C - Solids, Total Dissolved (TDS)	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	D	N	N	D	N	X	pH
T1-4HT				Water									
T1-4HTS				Water									
T2-1HT				Water									
T2-2HT				Water									
T2-2HTS				Water									
T2-3HT				Water									
T2-3HTS				Water									
T2-4HT				Water									
T2-4HTS				Water									
T3-4HT				Water									
T3-4HTS				Water									

680-221861 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested. I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	William Lacker	9/28/22 1030	Resolute		9/28/22 1030	
2					9/28 12:40	GS
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No..	Cooler Temperature(s) °C and Other Remarks:	3.1 / 3.0

Ver 01/16/2019

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

244 - ATLANTA

eurofins | Environment Testing America

Client Information	Sampler: Meredith Duncan, Will Leaker	Lab PM: Fuller, David	Carrier Tracking No(s):	COC No: 680-138977-50656.2
Client Contact: Kristen Jurinko	Phone: 470-895-0650	E-Mail: David.Fuller@et.eurofinsus.com	State of Origin: GA	Page: Page 2 of 4
Company: Southern Company	PWSID:			Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone: 404-506-7116(Tel)	Lab Project #: 68027841			
Email: KNJURINK@SOUTHERNCO COM	Lab PO #: GPC82130-0001			
Project Name: Plant McManus Surface Water	Project #:			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B - Metals - Select List - SAV	300_ORGFM_28D - Chloride Fluoride Sulfate	2320B - Alkalinity, Total, Carb/Bicarb	6020B - Metals - Select List - PIT	2540C - Solids, Total Dissolved (TDS)	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	D	N	N	D	N	X	pH
T4-1HB				Water									
T4-1HS				Water									
T4-2HB				Water									
T4-2HS				Water									
T4-3HB				Water									
T4-3HS				Water									
T4-4HB				Water									
T4-4HS				Water									
T1-4LT	9/28/22	0759	G	Water			X	X	X	X	X	5	6.69
T2-4LT	9/28/22	0807	G	Water			X	X	X	X	X	5	7.06
T3-4LT	9/28/22	0815	G	Water			X	X	X	X	X	5	7.16

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
William Leaker	9/28/22 1030	Resolute		9/28/22 10:30	
			avp	9/28 12:40	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.1/3.0

Ver: 01/16/2019

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

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244- ATLANTA

Client Information	Sampler	Lab PM	Carrier Tracking No(s)	COC No
	Meredith Duncan, Will Lacker	Fuller, David		680-138977-50656.3
Client Contact	**Phone**	**E-Mail**	**State of Origin**	**Page**
Kristen Jurinko	470-895-0650	David Fuller@et.eurofinsus.com	GA	Page 3 of 4
Company	**PWSID**			**Job #**
Southern Company				

Address	**Due Date Requested**	
241 Ralph McGill Blvd SE B10185		
City	**TAT Requested (days)**	
Atlanta		
State, Zip	**Compliance Project:** Δ Yes Δ No	
GA, 30308		
Phone	**Lab Project #**	
404-506-7116(Tel)	68027841	
Email	**Lab PO #**	
KNJURINK@SOUTHERNCO COM	GPC82130-0001	
Project Name	**Project #**	
Plant McManus Surface Water		
Site	**SSOW#**	

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B - Metals - Select List - SAV	300_ORGFM_28D - Chloride Fluoride Sulfate	2320B - Alkalinity, Total, Carb/Bicarb	6020B - Metals - Select List - PIT	2540C - Solids, Total Dissolved (TDS)									Total Number of containers	Special Instructions/Note: pH
			Preservation Code:		X	X	D	N	N	D	N									X	
T4-4L	9/27/22	1735	G	Water			X	X	X	X	X									5	7 14
BG-1LT	9/28/22	0749	G	Water			X	X	X	X	X									5	5 95
BG-2HT				Water																	
DUP-1				Water																	
DUP-2				Water																	
DUP-3	9/28/22	—	G	Water			X	X	X	X	X									5	
FB-1				Water																	
EB-1				Water																	
~~Extra 1~~ FB-2	9/28/22	0850	G	Water			X	X	X	X	X									5	
~~Extra 2~~ EB-2	9/28/22	0900	G	Water			X	X	X	X	X									5	
Extra 3				Water																	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by	Date	Time	Method of Shipment

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	William Lacker	9/28/22 1030	Resolute		9/28/22 1030	
2					9/28 12 40	
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

244-ATLANTA

Client Information	Sampler: Meredith Duncan, Will Lacker	Lab PM: Fuller, David	Carrier Tracking No(s):	COC No: 680-138774-30656.4
Client Contact: Kristen Jurinko	Phone: 470-895-0650	E-Mail: David.Fuller@et.eurofinsus.com	State of Origin: GA	Page: Page 4 of 4
Company: Southern Company	PWSID:			Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone: 404-506-7116(Tel)	Lab Project #: 68027841			
Email: KNJURINK@SOUTHERNCO COM	Lab PO #: GPC82130-0001			
Project Name: Plant McManus Surface Water	Project #:			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B - Metals - Select List - SAV	300_ORGFM_28D - Chloride Fluoride Sulfate	2320B - Alkalinity, Total, Carb/Bicarb	6020B - Metals - Select List - PIT	2540C - Solids, Total Dissolved (TDS)	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	D	N	N	D	N	X	pH
Extra 4				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested. I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
William Lacker	9/28/22 1030	Resilute		9/28/22 10:30	
				9/29 12:40	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone: 912-354-7858 Fax: 912-352-0165

Chain of Custody Record

eurofins

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fuller, David	Carrier Tracking No(s):	COC No: 680-709401.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: David.Fuller@et.eurofinsus.com	State of Origin: Georgia	Page: Page 1 of 3
Company: Eurofins Environment Testing Southeast,		Accreditations Required (See note): State - Georgia		Job #: 680-221593-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 10/6/2022			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Plant McManus	Project #: 68027841			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B/3005A Select 7 Surface Water Metals	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
T1-4HT (680-221593-1)	9/22/22	09:49 Eastern		Water			X	1	
T1-4HTS (680-221593-2)	9/22/22	09:43 Eastern		Water			X	1	
T2-1HT (680-221593-3)	9/22/22	08:40 Eastern		Water			X	1	
T2-2HT (680-221593-4)	9/22/22	08:50 Eastern		Water			X	1	
T2-2HTS (680-221593-5)	9/22/22	08:44 Eastern		Water			X	1	
T2-3HT (680-221593-6)	9/22/22	09:05 Eastern		Water			X	1	
T2-3HTS (680-221593-7)	9/22/22	09:00 Eastern		Water			X	1	
T2-4HT (680-221593-8)	9/22/22	09:35 Eastern		Water			X	1	
T2-4HTS (680-221593-9)	9/22/22	09:30 Eastern		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Southeast, LLC.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	9/23/2022 1089			9-24-22 830	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.4°C 1.7°C IR

Ver: 06/08/2021

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone: 912-354-7858 Fax: 912-352-0165

Chain of Custody Record

eurofins

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fuller, David	Carrier Tracking No(s):	COC No: 680-709401.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: David.Fuller@et.eurofinsus.com	State of Origin: Georgia	Page: Page 2 of 3
Company: Eurofins Environment Testing Southeast,		Accreditations Required (See note): State - Georgia		Job #: 680-221593-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 10/6/2022			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Plant McManus	Project #: 68027841			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B/3005A Select 7 Surface Water Metals	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
T3-4HT (680-221593-10)	9/22/22	09:22 Eastern		Water			X	1	
T3-4HTS (680-221593-11)	9/22/22	09:17 Eastern		Water			X	1	
T4-1HB (680-221593-12)	9/22/22	07:20 Eastern		Water			X	1	
T4-1HS (680-221593-13)	9/22/22	07:12 Eastern		Water			X	1	
T4-2HB (680-221593-14)	9/22/22	07:36 Eastern		Water			X	1	
T4-2HS (680-221593-15)	9/22/22	07:30 Eastern		Water			X	1	
T4-3HB (680-221593-16)	9/22/22	07:50 Eastern		Water			X	1	
T4-3HS (680-221593-17)	9/22/22	07:43 Eastern		Water			X	1	
T4-4HB (680-221593-18)	9/22/22	08:08 Eastern		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Southeast, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 9/23/2022 1839	Company	Received by:	Date/Time: 9-24-22 830	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.4°C 1.7°C IR5

Ver: 06/08/2021

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone: 912-354-7858 Fax: 912-352-0165

Chain of Custody Record

eurofins

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fuller, David	Carrier Tracking No(s):	COC No: 680-709401.3
Client Contact: Shipping/Receiving	Phone:	E-Mail: David.Fuller@et.eurofinsus.com	State of Origin: Georgia	Page: Page 3 of 3
Company: Eurofins Environment Testing Southeast,		Accreditations Required (See note): State - Georgia		Job #: 680-221593-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 10/6/2022			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Plant McManus	Project #: 68027841			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B/3005A Select 7 Surface Water Metals	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
T4-4HS (680-221593-19)	9/22/22	08:00 Eastern		Water			X	1	
BG-2HT (680-221593-20)	9/22/22	08:23 Eastern		Water			X	1	
DUP-1 (680-221593-21)	9/22/22	Eastern		Water			X	1	
DUP-2 (680-221593-22)	9/22/22	Eastern		Water			X	1	
FB-1 (680-221593-23)	9/22/22	10:30 Eastern		Water			X	1	
EB-1 (680-221593-24)	9/22/22	10:25 Eastern		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Southeast, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		9/23/2022 1839			9-24-22 930	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks.	3.4°C 1.7°C IR

Ver: 06/08/2021

eurofins | Environment Testing America

Part # 159469-434 RIT2 EXP 02/21

ORIGIN ID:SAVA (912) 354-
SHIPPING
EUROFINS/TESTAMERICA
5102 LA ROCHE AVE

SAVANNAH, GA 31404
UNITED STATES US

TE: 23SEP22
20.00 LB MAN
8389/CAFE3616

DER

TO SHIPPING/RECEIVING
EUROFINS ENVIRONMENT TESTING SOUTHE
3355 MCLEMORE DRIVE

PENSACOLA FL 32514
(850) 474-1001
PO: YES

REF: S680-139387

FedEx Express

1 of 2

TRK# 0201 1864 9070 5330

MASTER

XO PNSA

SATURDAY 12:00P
PRIORITY OVERNIGHT

32514
FL-US BFM

1.7°C
IR8
JA


eurofins
Environment Testing
TestAmerica
Part # 159469-434 RIT2 EXP 02/21
RT 687
12:00 A
5340
09.24
ST 0
SHIPPING
EUROFINS/TESTAMERICA
5102 LA ROCHE AVE
SAVANNAH, GA 31404
UNITED STATES US
SHIP DATE: 23SEP22
ACTWGT: 20.00 LB MAN
CAD: 0148389/CAFE3616
BILL SENDER
TO SHIPPING/RECEIVING
EUROFINS ENVIRONMENT TESTING SOUTHE
3355 MCLEMORE DRIVE
3.4°C
ICB ITM
PENSACOLA FL 32514
(850) 474-1001
PO: YES
REF: S680-139387
FedEx
Express
2 of 2
MPS# 0263 1864 9070 5340
Mstr# 1864 9070 5330
0201
SATURDAY 12:00P
PRIORITY OVERNIGHT
XO PNSA
32514
FL-US BFM

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 680-221593-1

Login Number: 221593
List Number: 1
Creator: Sims, Robert D

List Source: Eurofins Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 680-221593-1

Login Number: 221593
List Number: 2
Creator: Whitley, Adrian

List Source: Eurofins Pensacola
List Creation: 09/24/22 11:16 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4, 1.7°C IR8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 680-221593-1

Login Number: 221861
List Number: 1
Creator: Padayao, Abigail

List Source: Eurofins Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 680-221593-1

Login Number: 221861
List Number: 2
Creator: DeKlerk, Michaela

List Source: Eurofins Pensacola
List Creation: 10/05/22 10:12 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1°C IR9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Kristen N Jurinko
Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Generated 12/30/2022 9:41:17 AM

JOB DESCRIPTION

Plant McManus Surface Water

JOB NUMBER

680-228110-1

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404

See page two for job notes and contact information.

Job Notes

The test results in this report meet NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted. Results pertain only to samples listed in this report. This report may not be reproduced, except in full, without the written approval of the laboratory. Questions should be directed to the person who signed this report.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization

Generated
12/30/2022 9:41:17 AM

Authorized for release by
David Fuller, Project Manager
David.Fuller@et.eurofinsus.com
(770)344-8986

Definitions/Glossary

Client: Southern Company
Job ID: 680-228110-1
Project/Site: Plant McManus Surface Water

Qualifiers

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL, and the absolute difference between results is < the upper reporting limits for both.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: Southern Company
Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-228110-1	T1-1HT	Water	12/20/22 07:51	12/21/22 09:45
680-228110-2	T1-2HT	Water	12/20/22 08:01	12/21/22 09:45
680-228110-3	T1-2HTS	Water	12/20/22 07:56	12/21/22 09:45
680-228110-4	T1-3HT	Water	12/20/22 08:18	12/21/22 09:45
680-228110-5	T1-3HTS	Water	12/20/22 08:12	12/21/22 09:45
680-228110-6	T3-1HT	Water	12/20/22 07:07	12/21/22 09:45
680-228110-7	T3-2HT	Water	12/20/22 07:18	12/21/22 09:45
680-228110-8	T3-2HTS	Water	12/20/22 07:12	12/21/22 09:45
680-228110-9	T3-3HT	Water	12/20/22 07:38	12/21/22 09:45
680-228110-10	T3-3HTS	Water	12/20/22 07:30	12/21/22 09:45
680-228110-11	DUP-4	Water	12/20/22 00:00	12/21/22 09:45
680-228110-12	FB-3	Water	12/20/22 09:10	12/21/22 09:45
680-228110-13	EB-3	Water	12/20/22 09:15	12/21/22 09:45

Job ID: 680-228110-1

Laboratory: Eurofins Savannah

Narrative

Job Narrative
680-228110-1

Receipt
The samples were received on 12/21/2022 9:45 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.1º C and 2.9º C.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
Method 6020B: The continuing calibration verification (CCV) associated with batch 400-606565 recovered above the upper control limit for Boron and Lithium. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 6020B: The ICV for batch 400-606565 passed recovery/accuracy criteria which serves the ICV purpose of verifying the calibration standards. The replicate RPDs for the elements were outside of the criteria for standards but within the criteria for field samples. Data has therefore been reported and narrated accordingly.

Method 6020B: The continuing calibration blank (CCB) for analytical batch 400-606565 contained Sodium above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Method 6020B: The following samples were diluted to bring the concentration of target analytes within the calibration range: T1-3HTS (680-228110-5), T3-1HT (680-228110-6), T3-2HTS (680-228110-8), T3-3HT (680-228110-9), T3-3HTS (680-228110-10) and DUP-4 (680-228110-11). Elevated reporting limits (RLs) are provided.

Method 6020B: The continuing calibration blank (CCB) for analytical batch 400-606563 contained Lithium above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Method 6020B: The continuing calibration verification (CCV) associated with batch 400-606565 recovered above the upper control limit for Boron and Lithium. The LCS associated with this CCV were within limits for the affected analytes; therefore, the data have been reported. The associated LCS is impacted: (CCV 400-606565/57) and (LCS 400-606254/2-A ^5).

Method 6020B: The serial dilution performed for the following sample associated with batch 400-606565 was outside control limits: (680-228110-B-1-A SD ^25)

Method 6020B: The post digestion spike % recovery for Boron associated with batch 400-606565 was outside of control limits. The associated sample is: (680-228110-B-1-A PDS ^5).

Method 6020B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-606254 and analytical batch 400-606565 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 6020B: The continuing calibration blank (CCB) for analytical batch 400-606700 contained Sodium above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Method 6020B: The following sample was diluted to bring the concentration of target analytes within the calibration range: T3-2HT (680-228110-7). Elevated reporting limits (RLs) are provided.

Method 6020B: The continuing calibration verification (CCV) associated with batch 400-606565 recovered above the upper control limit for Boron and Lithium. The method blank associated with this CCV were below the reporting limit for the affected analytes, and the laboratory control spike associated with the CCV was within the acceptable limits; therefore, the data have been reported.

Job ID: 680-228110-1 (Continued)

Laboratory: Eurofins Savannah (Continued)

Method 6020B: The CRI associated with batch 400-606700 recovered above the upper control limit for Potassium. The samples associated with this CRI were non-detects for the affected analytes; therefore, the data have been reported.

Method 6020B: The instrument blank for analytical batch 400-606700 contained Sodium greater than the reporting limit (RL) and were not reanalyzed because the associated non blank samples were 10x greater than the instrument blanks. NOTE: Field sample blank detections were significantly less than those "non-blank" hits and only slightly above the RL. The data have been qualified and reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
Method SM 2540C: The sample duplicate precision for the following sample associated with analytical batch 680-756570 was outside control limits: (680-228018-F-1 DU). The associated Laboratory Control Sample / Laboratory Control Sample Duplicate (LCS/LCSD) precision met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client: Southern Company
Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

Client Sample ID: T1-1HT

Lab Sample ID: 680-228110-1

Date Collected: 12/20/22 07:51

Matrix: Water

Date Received: 12/21/22 09:45

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16000		250	50	mg/L			12/28/22 10:17	250
Fluoride	<10		25	10	mg/L			12/28/22 10:17	250
Sulfate	2000		250	100	mg/L			12/28/22 10:17	250

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0020		0.0013	0.0012	mg/L		12/27/22 12:40	12/28/22 15:10	5
Boron	3.6	B	0.10	0.0024	mg/L		12/27/22 12:40	12/28/22 17:14	10
Calcium	360		0.25	0.13	mg/L		12/27/22 12:40	12/28/22 15:10	5
Lithium	0.14		0.010	0.0098	mg/L		12/27/22 12:40	12/29/22 12:58	10
Magnesium	1000		0.13	0.041	mg/L		12/27/22 12:40	12/28/22 15:10	5
Potassium	320		0.25	0.17	mg/L		12/27/22 12:40	12/28/22 15:10	5
Sodium	8300		0.25	0.16	mg/L		12/27/22 12:40	12/28/22 15:10	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 (SM 2320B-2011)	130		5.0	2.2	mg/L			12/23/22 05:24	1
Alkalinity, Bicarbonate (SM 2320B-2011)	130		5.0	5.0	mg/L			12/23/22 05:24	1
Alkalinity, Carbonate (As CaCO3) (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			12/23/22 05:24	1
Total Dissolved Solids (SM 2540C-2011)	24000		2000	2000	mg/L			12/22/22 14:22	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.56				SU			12/20/22 07:51	1

Client Sample ID: T1-2HT

Lab Sample ID: 680-228110-2

Date Collected: 12/20/22 08:01

Matrix: Water

Date Received: 12/21/22 09:45

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16000		250	50	mg/L			12/28/22 12:29	250
Fluoride	<10		25	10	mg/L			12/28/22 12:29	250
Sulfate	2100		250	100	mg/L			12/28/22 12:29	250

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0019		0.0013	0.0012	mg/L		12/27/22 12:40	12/28/22 15:25	5
Boron	3.8	B	0.10	0.0024	mg/L		12/27/22 12:40	12/28/22 17:17	10
Calcium	370		0.25	0.13	mg/L		12/27/22 12:40	12/28/22 15:25	5
Lithium	0.15		0.010	0.0098	mg/L		12/27/22 12:40	12/29/22 13:02	10
Magnesium	1100		0.13	0.041	mg/L		12/27/22 12:40	12/28/22 15:25	5
Potassium	340		0.25	0.17	mg/L		12/27/22 12:40	12/28/22 15:25	5
Sodium	8800		0.25	0.16	mg/L		12/27/22 12:40	12/28/22 15:25	5

Client: Southern Company
Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

Client Sample ID: T1-2HT

Lab Sample ID: 680-228110-2

Date Collected: 12/20/22 08:01
Matrix: Water
Date Received: 12/21/22 09:45

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 (SM 2320B-2011)	130		5.0	2.2	mg/L			12/23/22 05:05	1
Alkalinity, Bicarbonate (SM 2320B-2011)	130		5.0	5.0	mg/L			12/23/22 05:05	1
Alkalinity, Carbonate (As CaCO3) (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			12/23/22 05:05	1
Total Dissolved Solids (SM 2540C-2011)	27000		2000	2000	mg/L			12/22/22 14:22	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.55				SU			12/20/22 08:01	1

Client Sample ID: T1-2HTS

Lab Sample ID: 680-228110-3

Date Collected: 12/20/22 07:56
Matrix: Water
Date Received: 12/21/22 09:45

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18000		250	50	mg/L			12/28/22 12:42	250
Fluoride	<10		25	10	mg/L			12/28/22 12:42	250
Sulfate	2300		250	100	mg/L			12/28/22 12:42	250

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0021		0.0013	0.0012	mg/L		12/27/22 12:40	12/28/22 15:28	5
Boron	3.7	B	0.10	0.0024	mg/L		12/27/22 12:40	12/28/22 17:20	10
Calcium	360		0.25	0.13	mg/L		12/27/22 12:40	12/28/22 15:28	5
Lithium	0.14		0.010	0.0098	mg/L		12/27/22 12:40	12/29/22 13:05	10
Magnesium	1000		0.13	0.041	mg/L		12/27/22 12:40	12/28/22 15:28	5
Potassium	330		0.25	0.17	mg/L		12/27/22 12:40	12/28/22 15:28	5
Sodium	8500		0.25	0.16	mg/L		12/27/22 12:40	12/28/22 15:28	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 (SM 2320B-2011)	130		5.0	2.2	mg/L			12/23/22 05:15	1
Alkalinity, Bicarbonate (SM 2320B-2011)	130		5.0	5.0	mg/L			12/23/22 05:15	1
Alkalinity, Carbonate (As CaCO3) (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			12/23/22 05:15	1
Total Dissolved Solids (SM 2540C-2011)	24000		2000	2000	mg/L			12/22/22 14:22	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.57				SU			12/20/22 07:56	1

Client Sample ID: T1-3HT

Lab Sample ID: 680-228110-4

Date Collected: 12/20/22 08:18

Matrix: Water

Date Received: 12/21/22 09:45

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29000		250	50	mg/L			12/28/22 13:22	250
Fluoride	<10		25	10	mg/L			12/28/22 13:22	250
Sulfate	3900		250	100	mg/L			12/28/22 13:22	250

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0025		0.0013	0.0012	mg/L		12/27/22 12:40	12/28/22 15:31	5
Boron	4.0	B	0.10	0.0024	mg/L		12/27/22 12:40	12/28/22 17:23	10
Calcium	370		0.25	0.13	mg/L		12/27/22 12:40	12/28/22 15:31	5
Lithium	0.14		0.010	0.0098	mg/L		12/27/22 12:40	12/29/22 13:08	10
Magnesium	1100		0.13	0.041	mg/L		12/27/22 12:40	12/28/22 15:31	5
Potassium	340		0.25	0.17	mg/L		12/27/22 12:40	12/28/22 15:31	5
Sodium	8800		0.25	0.16	mg/L		12/27/22 12:40	12/28/22 15:31	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 (SM 2320B-2011)	130		5.0	2.2	mg/L			12/23/22 05:55	1
Alkalinity, Bicarbonate (SM 2320B-2011)	130		5.0	5.0	mg/L			12/23/22 05:55	1
Alkalinity, Carbonate (As CaCO3) (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			12/23/22 05:55	1
Total Dissolved Solids (SM 2540C-2011)	25000		2000	2000	mg/L			12/22/22 14:22	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.53				SU			12/20/22 08:18	1

Client Sample ID: T1-3HTS

Lab Sample ID: 680-228110-5

Date Collected: 12/20/22 08:12

Matrix: Water

Date Received: 12/21/22 09:45

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20000		250	50	mg/L			12/28/22 13:35	250
Fluoride	<10		25	10	mg/L			12/28/22 13:35	250
Sulfate	2600		250	100	mg/L			12/28/22 13:35	250

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0018		0.0013	0.0012	mg/L		12/27/22 12:40	12/28/22 16:34	5
Boron	4.1	B	0.10	0.0024	mg/L		12/27/22 12:40	12/28/22 17:27	10
Calcium	380		0.25	0.13	mg/L		12/27/22 12:40	12/28/22 16:34	5
Lithium	0.14		0.010	0.0098	mg/L		12/27/22 12:40	12/29/22 13:51	10
Magnesium	1100		0.13	0.041	mg/L		12/27/22 12:40	12/28/22 16:34	5
Potassium	330		0.25	0.17	mg/L		12/27/22 12:40	12/28/22 16:34	5
Sodium	9300	^2	50	32	mg/L		12/27/22 12:40	12/28/22 17:33	1000

Client: Southern Company
Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

Client Sample ID: T1-3HTS

Lab Sample ID: 680-228110-5

Date Collected: 12/20/22 08:12

Matrix: Water

Date Received: 12/21/22 09:45

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 (SM 2320B-2011)	**130**		5.0	2.2	mg/L			12/23/22 06:54	1
Alkalinity, Bicarbonate (SM 2320B-2011)	**130**		5.0	5.0	mg/L			12/23/22 06:54	1
Alkalinity, Carbonate (As CaCO3) (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			12/23/22 06:54	1
Total Dissolved Solids (SM 2540C-2011)	**23000**		2000	2000	mg/L			12/22/22 14:22	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**7.54**				SU			12/20/22 08:12	1

Client Sample ID: T3-1HT

Lab Sample ID: 680-228110-6

Date Collected: 12/20/22 07:07

Matrix: Water

Date Received: 12/21/22 09:45

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**20000**		250	50	mg/L			12/28/22 13:48	250
Fluoride	<10		25	10	mg/L			12/28/22 13:48	250
Sulfate	**2500**		250	100	mg/L			12/28/22 13:48	250

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0020**		0.0013	0.0012	mg/L		12/27/22 12:40	12/28/22 16:37	5
Boron	**3.8**	**B**	0.10	0.0024	mg/L		12/27/22 12:40	12/28/22 17:30	10
Calcium	**360**		0.25	0.13	mg/L		12/27/22 12:40	12/28/22 16:37	5
Lithium	**0.14**		0.010	0.0098	mg/L		12/27/22 12:40	12/29/22 13:54	10
Magnesium	**1100**		0.13	0.041	mg/L		12/27/22 12:40	12/28/22 16:37	5
Potassium	**320**		0.25	0.17	mg/L		12/27/22 12:40	12/28/22 16:37	5
Sodium	**8800**	**^2**	50	32	mg/L		12/27/22 12:40	12/28/22 17:36	1000

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 (SM 2320B-2011)	**130**		5.0	2.2	mg/L			12/23/22 06:39	1
Alkalinity, Bicarbonate (SM 2320B-2011)	**130**		5.0	5.0	mg/L			12/23/22 06:39	1
Alkalinity, Carbonate (As CaCO3) (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			12/23/22 06:39	1
Total Dissolved Solids (SM 2540C-2011)	**25000**		2000	2000	mg/L			12/22/22 14:22	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.58**				SU			12/20/22 07:07	1

Client Sample ID: T3-2HT

Lab Sample ID: 680-228110-7

Date Collected: 12/20/22 07:18

Matrix: Water

Date Received: 12/21/22 09:45

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20000		250	50	mg/L			12/28/22 14:01	250
Fluoride	<10		25	10	mg/L			12/28/22 14:01	250
Sulfate	2600		250	100	mg/L			12/28/22 14:01	250

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0018		0.0013	0.0012	mg/L		12/27/22 12:40	12/28/22 16:40	5
Boron	3.9	B	0.10	0.0024	mg/L		12/27/22 12:40	12/28/22 17:33	10
Calcium	370		0.25	0.13	mg/L		12/27/22 12:40	12/28/22 16:40	5
Lithium	0.12		0.10	0.098	mg/L		12/27/22 12:40	12/29/22 12:55	100
Magnesium	1100		0.13	0.041	mg/L		12/27/22 12:40	12/28/22 16:40	5
Potassium	330		0.25	0.17	mg/L		12/27/22 12:40	12/28/22 16:40	5
Sodium	8400	^2	5.0	3.2	mg/L		12/27/22 12:40	12/29/22 12:55	100

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 (SM 2320B-2011)	130		5.0	2.2	mg/L			12/23/22 06:14	1
Alkalinity, Bicarbonate (SM 2320B-2011)	130		5.0	5.0	mg/L			12/23/22 06:14	1
Alkalinity, Carbonate (As CaCO3) (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			12/23/22 06:14	1
Total Dissolved Solids (SM 2540C-2011)	26000		2000	2000	mg/L			12/22/22 14:22	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.31				SU			12/20/22 07:18	1

Client Sample ID: T3-2HTS

Lab Sample ID: 680-228110-8

Date Collected: 12/20/22 07:12

Matrix: Water

Date Received: 12/21/22 09:45

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16000		250	50	mg/L			12/28/22 14:14	250
Fluoride	<10		25	10	mg/L			12/28/22 14:14	250
Sulfate	2000		250	100	mg/L			12/28/22 14:14	250

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0019		0.0013	0.0012	mg/L		12/27/22 12:40	12/28/22 16:43	5
Boron	3.8	B	0.10	0.0024	mg/L		12/27/22 12:40	12/28/22 17:37	10
Calcium	360		0.25	0.13	mg/L		12/27/22 12:40	12/28/22 16:43	5
Lithium	0.13		0.010	0.0098	mg/L		12/27/22 12:40	12/29/22 13:57	10
Magnesium	1100		0.13	0.041	mg/L		12/27/22 12:40	12/28/22 16:43	5
Potassium	330		0.25	0.17	mg/L		12/27/22 12:40	12/28/22 16:43	5
Sodium	10000	^2	50	32	mg/L		12/27/22 12:40	12/28/22 17:42	1000

Client: Southern Company
Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

Client Sample ID: T3-2HTS

Lab Sample ID: 680-228110-8

Date Collected: 12/20/22 07:12

Matrix: Water

Date Received: 12/21/22 09:45

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 (SM 2320B-2011)	130		5.0	2.2	mg/L			12/23/22 06:29	1
Alkalinity, Bicarbonate (SM 2320B-2011)	130		5.0	5.0	mg/L			12/23/22 06:29	1
Alkalinity, Carbonate (As CaCO3) (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			12/23/22 06:29	1
Total Dissolved Solids (SM 2540C-2011)	26000		2000	2000	mg/L			12/22/22 14:22	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.14				SU			12/20/22 07:12	1

Client Sample ID: T3-3HT

Lab Sample ID: 680-228110-9

Date Collected: 12/20/22 07:38

Matrix: Water

Date Received: 12/21/22 09:45

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23000		250	50	mg/L			12/28/22 14:27	250
Fluoride	<10		25	10	mg/L			12/28/22 14:27	250
Sulfate	3100		250	100	mg/L			12/28/22 14:27	250

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0020		0.0013	0.0012	mg/L		12/27/22 12:40	12/28/22 16:47	5
Boron	4.0	B	0.10	0.0024	mg/L		12/27/22 12:40	12/28/22 17:53	10
Calcium	360		0.25	0.13	mg/L		12/27/22 12:40	12/28/22 16:47	5
Lithium	0.14		0.010	0.0098	mg/L		12/27/22 12:40	12/28/22 17:53	10
Magnesium	1100		0.13	0.041	mg/L		12/27/22 12:40	12/28/22 16:47	5
Potassium	330		0.25	0.17	mg/L		12/27/22 12:40	12/28/22 16:47	5
Sodium	24000	^2	50	32	mg/L		12/27/22 12:40	12/28/22 17:45	1000

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 (SM 2320B-2011)	130		5.0	2.2	mg/L			12/23/22 07:22	1
Alkalinity, Bicarbonate (SM 2320B-2011)	130		5.0	5.0	mg/L			12/23/22 07:22	1
Alkalinity, Carbonate (As CaCO3) (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			12/23/22 07:22	1
Total Dissolved Solids (SM 2540C-2011)	24000		2000	2000	mg/L			12/22/22 14:22	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.46				SU			12/20/22 07:38	1

Client Sample ID: T3-3HTS

Lab Sample ID: 680-228110-10

Date Collected: 12/20/22 07:30

Matrix: Water

Date Received: 12/21/22 09:45

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16000		250	50	mg/L			12/28/22 14:41	250
Fluoride	<10		25	10	mg/L			12/28/22 14:41	250
Sulfate	2100		250	100	mg/L			12/28/22 14:41	250

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0023		0.0013	0.0012	mg/L		12/27/22 12:40	12/28/22 16:50	5
Boron	3.8	B	0.10	0.0024	mg/L		12/27/22 12:40	12/28/22 17:56	10
Calcium	360		0.25	0.13	mg/L		12/27/22 12:40	12/28/22 16:50	5
Lithium	0.15		0.010	0.0098	mg/L		12/27/22 12:40	12/28/22 17:56	10
Magnesium	1100		0.13	0.041	mg/L		12/27/22 12:40	12/28/22 16:50	5
Potassium	330		0.25	0.17	mg/L		12/27/22 12:40	12/28/22 16:50	5
Sodium	9100	^2	50	32	mg/L		12/27/22 12:40	12/28/22 17:48	1000

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 (SM 2320B-2011)	130		5.0	2.2	mg/L			12/23/22 07:03	1
Alkalinity, Bicarbonate (SM 2320B-2011)	130		5.0	5.0	mg/L			12/23/22 07:03	1
Alkalinity, Carbonate (As CaCO3) (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			12/23/22 07:03	1
Total Dissolved Solids (SM 2540C-2011)	24000		2000	2000	mg/L			12/22/22 14:22	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.39				SU			12/20/22 07:30	1

Client Sample ID: DUP-4

Lab Sample ID: 680-228110-11

Date Collected: 12/20/22 00:00

Matrix: Water

Date Received: 12/21/22 09:45

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16000		250	50	mg/L			12/28/22 14:54	250
Fluoride	<10		25	10	mg/L			12/28/22 14:54	250
Sulfate	2000		250	100	mg/L			12/28/22 14:54	250

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0021		0.0013	0.0012	mg/L		12/27/22 12:40	12/28/22 16:53	5
Boron	3.8	B	0.10	0.0024	mg/L		12/27/22 12:40	12/28/22 17:59	10
Calcium	360		0.25	0.13	mg/L		12/27/22 12:40	12/28/22 16:53	5
Lithium	0.15		0.010	0.0098	mg/L		12/27/22 12:40	12/28/22 17:59	10
Magnesium	1100		0.13	0.041	mg/L		12/27/22 12:40	12/28/22 16:53	5
Potassium	330		0.25	0.17	mg/L		12/27/22 12:40	12/28/22 16:53	5
Sodium	9400	^2	50	32	mg/L		12/27/22 12:40	12/28/22 17:51	1000

Client Sample ID: DUP-4

Lab Sample ID: 680-228110-11

Date Collected: 12/20/22 00:00

Matrix: Water

Date Received: 12/21/22 09:45

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 (SM 2320B-2011)	**130**		5.0	2.2	mg/L			12/23/22 07:13	1
Alkalinity, Bicarbonate (SM 2320B-2011)	**130**		5.0	5.0	mg/L			12/23/22 07:13	1
Alkalinity, Carbonate (As CaCO3) (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			12/23/22 07:13	1
Total Dissolved Solids (SM 2540C-2011)	**25000**		2000	2000	mg/L			12/22/22 14:22	1

Client Sample ID: FB-3

Lab Sample ID: 680-228110-12

Date Collected: 12/20/22 09:10

Matrix: Water

Date Received: 12/21/22 09:45

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			12/28/22 15:07	1
Fluoride	<0.040		0.10	0.040	mg/L			12/28/22 15:07	1
Sulfate	<0.40		1.0	0.40	mg/L			12/28/22 15:07	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0012		0.0013	0.0012	mg/L		12/27/22 12:40	12/28/22 16:56	5
Boron	**0.061**	**J B**	0.10	0.0024	mg/L		12/27/22 12:40	12/28/22 18:03	10
Calcium	<0.13		0.25	0.13	mg/L		12/27/22 12:40	12/28/22 16:56	5
Lithium	**0.019**		0.010	0.0098	mg/L		12/27/22 12:40	12/28/22 18:03	10
Magnesium	<0.041		0.13	0.041	mg/L		12/27/22 12:40	12/29/22 12:48	5
Potassium	<0.17	^3+	0.25	0.17	mg/L		12/27/22 12:40	12/29/22 12:48	5
Sodium	**0.34**	**^2**	0.25	0.16	mg/L		12/27/22 12:40	12/29/22 12:48	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 (SM 2320B-2011)	<2.2		5.0	2.2	mg/L			12/23/22 06:20	1
Alkalinity, Bicarbonate (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			12/23/22 06:20	1
Alkalinity, Carbonate (As CaCO3) (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			12/23/22 06:20	1
Total Dissolved Solids (SM 2540C-2011)	<10		10	10	mg/L			12/22/22 14:22	1

Client Sample ID: EB-3

Lab Sample ID: 680-228110-13

Date Collected: 12/20/22 09:15

Matrix: Water

Date Received: 12/21/22 09:45

Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			12/28/22 15:46	1
Fluoride	<0.040		0.10	0.040	mg/L			12/28/22 15:46	1
Sulfate	<0.40		1.0	0.40	mg/L			12/28/22 15:46	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0012		0.0013	0.0012	mg/L		12/27/22 12:40	12/28/22 16:59	5

Client: Southern Company
Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

Client Sample ID: EB-3
Date Collected: 12/20/22 09:15
Date Received: 12/21/22 09:45

Lab Sample ID: 680-228110-13
Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.0049**	**J B**	0.050	0.0012	mg/L		12/27/22 12:40	12/29/22 12:45	5
Calcium	<0.13		0.25	0.13	mg/L		12/27/22 12:40	12/28/22 16:59	5
Lithium	<0.0049		0.0050	0.0049	mg/L		12/27/22 12:40	12/29/22 12:45	5
Magnesium	<0.041		0.13	0.041	mg/L		12/27/22 12:40	12/28/22 16:59	5
Potassium	<0.17	^3+	0.25	0.17	mg/L		12/27/22 12:40	12/29/22 12:45	5
Sodium	**0.25**	**^2**	0.25	0.16	mg/L		12/27/22 12:40	12/29/22 12:45	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 (SM 2320B-2011)	<2.2		5.0	2.2	mg/L			12/23/22 06:45	1
Alkalinity, Bicarbonate (SM 2320B-2011)	**8.0**		5.0	5.0	mg/L			12/23/22 06:45	1
Alkalinity, Carbonate (As CaCO3) (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			12/23/22 06:45	1
Total Dissolved Solids (SM 2540C-2011)	<10		10	10	mg/L			12/22/22 14:22	1

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 680-756996/2
Matrix: Water
Analysis Batch: 756996

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			12/28/22 09:25	1
Fluoride	<0.040		0.10	0.040	mg/L			12/28/22 09:25	1
Sulfate	<0.40		1.0	0.40	mg/L			12/28/22 09:25	1

Lab Sample ID: LCS 680-756996/4
Matrix: Water
Analysis Batch: 756996

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			10.0	10.1		mg/L		101	90 - 110		
Fluoride			2.00	2.09		mg/L		104	90 - 110		
Sulfate			10.0	10.3		mg/L		103	90 - 110		

Lab Sample ID: LCSD 680-756996/5
Matrix: Water
Analysis Batch: 756996

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			10.0	10.1		mg/L		101	90 - 110	0	15
Fluoride			2.00	2.07		mg/L		104	90 - 110	1	15
Sulfate			10.0	10.2		mg/L		102	90 - 110	1	15

Lab Sample ID: 680-227790-D-32 MS
Matrix: Water
Analysis Batch: 756996

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	1.4		10.0	11.9		mg/L		105	80 - 120		
Fluoride	<0.040		2.00	2.06		mg/L		103	80 - 120		
Sulfate	<0.40		10.0	10.2		mg/L		102	80 - 120		

Lab Sample ID: 680-227790-D-32 MSD
Matrix: Water
Analysis Batch: 756996

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1.4		10.0	11.7		mg/L		103	80 - 120	1	15
Fluoride	<0.040		2.00	2.04		mg/L		102	80 - 120	1	15
Sulfate	<0.40		10.0	10.0		mg/L		100	80 - 120	1	15

Lab Sample ID: 680-228110-12 MS
Matrix: Water
Analysis Batch: 756996

Client Sample ID: FB-3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	<0.20		10.0	10.1		mg/L		101	80 - 120		
Fluoride	<0.040		2.00	2.16		mg/L		108	80 - 120		
Sulfate	<0.40		10.0	10.6		mg/L		106	80 - 120		

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 680-228110-12 MSD
Matrix: Water
Analysis Batch: 756996

Client Sample ID: FB-3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	<0.20		10.0	9.98		mg/L		100	80 - 120	1	15
Fluoride	<0.040		2.00	2.15		mg/L		107	80 - 120	1	15
Sulfate	<0.40		10.0	10.7		mg/L		107	80 - 120	0	15

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 400-606254/1-A ^5
Matrix: Water
Analysis Batch: 606565

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 606254

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0012		0.0013	0.0012	mg/L		12/27/22 12:40	12/28/22 15:03	5
Boron	0.00785	J ^+	0.050	0.0012	mg/L		12/27/22 12:40	12/28/22 15:03	5
Calcium	<0.13		0.25	0.13	mg/L		12/27/22 12:40	12/28/22 15:03	5
Lithium	<0.0049	^+	0.0050	0.0049	mg/L		12/27/22 12:40	12/28/22 15:03	5
Magnesium	<0.041		0.13	0.041	mg/L		12/27/22 12:40	12/28/22 15:03	5
Potassium	<0.17		0.25	0.17	mg/L		12/27/22 12:40	12/28/22 15:03	5
Sodium	<0.16		0.25	0.16	mg/L		12/27/22 12:40	12/28/22 15:03	5

Lab Sample ID: LCS 400-606254/2-A ^5
Matrix: Water
Analysis Batch: 606565

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 606254

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.0500	0.0499		mg/L		100	80 - 120
Boron	0.100	0.113	^+	mg/L		113	80 - 120
Calcium	5.00	5.22		mg/L		104	80 - 120
Lithium	0.0500	0.0535	^+	mg/L		107	80 - 120
Magnesium	5.00	4.98		mg/L		100	80 - 120
Potassium	5.00	4.78		mg/L		96	80 - 120
Sodium	5.00	4.81		mg/L		96	80 - 120

Lab Sample ID: 680-228110-1 MS
Matrix: Water
Analysis Batch: 606565

Client Sample ID: T1-1HT
Prep Type: Total Recoverable
Prep Batch: 606254

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.0020		0.0500	0.0529		mg/L		102	75 - 125
Boron	3.7	B ^+	0.100	4.18	4 ^+	mg/L		469	75 - 125
Calcium	360		5.00	367	4	mg/L		213	75 - 125
Lithium	0.15	F1 ^+ ^2	0.0500	0.232	F1 ^+	mg/L		172	75 - 125
Magnesium	1000		5.00	1050	4	mg/L		658	75 - 125
Potassium	320		5.00	333	4	mg/L		223	75 - 125
Sodium	8300		5.00	8440	4	mg/L		3686	75 - 125

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 680-228110-1 MSD
Matrix: Water
Analysis Batch: 606565

Client Sample ID: T1-1HT
Prep Type: Total Recoverable
Prep Batch: 606254

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	0.0020		0.0500	0.0538		mg/L		104	75 - 125	2	20
Boron	3.7	B ^+	0.100	4.24	4 ^+	mg/L		532	75 - 125	1	20
Calcium	360		5.00	362	4	mg/L		126	75 - 125	1	20
Lithium	0.15	F1 ^+ ^2	0.0500	0.238	F1 ^+	mg/L		183	75 - 125	2	20
Magnesium	1000		5.00	1040	4	mg/L		490	75 - 125	1	20
Potassium	320		5.00	333	4	mg/L		217	75 - 125	0	20
Sodium	8300		5.00	8410	4	mg/L		3116	75 - 125	0	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 680-756843/4
Matrix: Water
Analysis Batch: 756843

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3	<2.2		5.0	2.2	mg/L			12/23/22 03:39	1
Alkalinity, Bicarbonate	<5.0		5.0	5.0	mg/L			12/23/22 03:39	1
Alkalinity, Carbonate (As CaCO3)	<5.0		5.0	5.0	mg/L			12/23/22 03:39	1

Lab Sample ID: LCS 680-756843/6
Matrix: Water
Analysis Batch: 756843

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3	250	243		mg/L		97	90 - 112

Lab Sample ID: LCSD 680-756843/31
Matrix: Water
Analysis Batch: 756843

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3	250	253		mg/L		101	90 - 112	4	30

Lab Sample ID: 680-228110-4 DU
Matrix: Water
Analysis Batch: 756843

Client Sample ID: T1-3HT
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3	130		133		mg/L		2	30
Alkalinity, Bicarbonate	130		133		mg/L		2	30
Alkalinity, Carbonate (As CaCO3)	<5.0		<5.0		mg/L		NC	30

Method: 2540C-2011 - Total Dissolved Solids (Dried at 180 °C)

Lab Sample ID: MB 680-756570/1
Matrix: Water
Analysis Batch: 756570

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			12/22/22 14:22	1

Method: 2540C-2011 - Total Dissolved Solids (Dried at 180 °C) (Continued)

Lab Sample ID: LCS 680-756570/2
Matrix: Water
Analysis Batch: 756570

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			2340	2390		mg/L		102	80 - 120		

Lab Sample ID: LCSD 680-756570/3
Matrix: Water
Analysis Batch: 756570

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			2340	2370		mg/L		101	80 - 120	1	25

Lab Sample ID: 680-228018-F-1 DU
Matrix: Water
Analysis Batch: 756570

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	210			196	F5	mg/L				8	5

Lab Sample ID: 680-228018-F-2 DU
Matrix: Water
Analysis Batch: 756570

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	130			124		mg/L				3	5

HPLC/IC

Analysis Batch: 756996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-228110-1	T1-1HT	Total/NA	Water	300.0-1993 R2.1	
680-228110-2	T1-2HT	Total/NA	Water	300.0-1993 R2.1	
680-228110-3	T1-2HTS	Total/NA	Water	300.0-1993 R2.1	
680-228110-4	T1-3HT	Total/NA	Water	300.0-1993 R2.1	
680-228110-5	T1-3HTS	Total/NA	Water	300.0-1993 R2.1	
680-228110-6	T3-1HT	Total/NA	Water	300.0-1993 R2.1	
680-228110-7	T3-2HT	Total/NA	Water	300.0-1993 R2.1	
680-228110-8	T3-2HTS	Total/NA	Water	300.0-1993 R2.1	
680-228110-9	T3-3HT	Total/NA	Water	300.0-1993 R2.1	
680-228110-10	T3-3HTS	Total/NA	Water	300.0-1993 R2.1	
680-228110-11	DUP-4	Total/NA	Water	300.0-1993 R2.1	
680-228110-12	FB-3	Total/NA	Water	300.0-1993 R2.1	
680-228110-13	EB-3	Total/NA	Water	300.0-1993 R2.1	
MB 680-756996/2	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 680-756996/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCSD 680-756996/5	Lab Control Sample Dup	Total/NA	Water	300.0-1993 R2.1	
680-227790-D-32 MS	Matrix Spike	Total/NA	Water	300.0-1993 R2.1	
680-227790-D-32 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0-1993 R2.1	
680-228110-12 MS	FB-3	Total/NA	Water	300.0-1993 R2.1	
680-228110-12 MSD	FB-3	Total/NA	Water	300.0-1993 R2.1	

Metals

Prep Batch: 606254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-228110-1	T1-1HT	Total Recoverable	Water	3005A	
680-228110-2	T1-2HT	Total Recoverable	Water	3005A	
680-228110-3	T1-2HTS	Total Recoverable	Water	3005A	
680-228110-4	T1-3HT	Total Recoverable	Water	3005A	
680-228110-5	T1-3HTS	Total Recoverable	Water	3005A	
680-228110-6	T3-1HT	Total Recoverable	Water	3005A	
680-228110-7	T3-2HT	Total Recoverable	Water	3005A	
680-228110-8	T3-2HTS	Total Recoverable	Water	3005A	
680-228110-9	T3-3HT	Total Recoverable	Water	3005A	
680-228110-10	T3-3HTS	Total Recoverable	Water	3005A	
680-228110-11	DUP-4	Total Recoverable	Water	3005A	
680-228110-12	FB-3	Total Recoverable	Water	3005A	
680-228110-13	EB-3	Total Recoverable	Water	3005A	
MB 400-606254/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-606254/2-A ^5	Lab Control Sample	Total Recoverable	Water	3005A	
680-228110-1 MS	T1-1HT	Total Recoverable	Water	3005A	
680-228110-1 MSD	T1-1HT	Total Recoverable	Water	3005A	

Analysis Batch: 606563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-228110-1	T1-1HT	Total Recoverable	Water	6020B	606254
680-228110-2	T1-2HT	Total Recoverable	Water	6020B	606254
680-228110-3	T1-2HTS	Total Recoverable	Water	6020B	606254
680-228110-4	T1-3HT	Total Recoverable	Water	6020B	606254
680-228110-5	T1-3HTS	Total Recoverable	Water	6020B	606254
680-228110-6	T3-1HT	Total Recoverable	Water	6020B	606254

Metals (Continued)

Analysis Batch: 606563 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-228110-7	T3-2HT	Total Recoverable	Water	6020B	606254
680-228110-8	T3-2HTS	Total Recoverable	Water	6020B	606254
680-228110-9	T3-3HT	Total Recoverable	Water	6020B	606254
680-228110-10	T3-3HTS	Total Recoverable	Water	6020B	606254
680-228110-11	DUP-4	Total Recoverable	Water	6020B	606254
680-228110-12	FB-3	Total Recoverable	Water	6020B	606254

Analysis Batch: 606565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-228110-1	T1-1HT	Total Recoverable	Water	6020B	606254
680-228110-2	T1-2HT	Total Recoverable	Water	6020B	606254
680-228110-3	T1-2HTS	Total Recoverable	Water	6020B	606254
680-228110-4	T1-3HT	Total Recoverable	Water	6020B	606254
680-228110-5	T1-3HTS	Total Recoverable	Water	6020B	606254
680-228110-5	T1-3HTS	Total Recoverable	Water	6020B	606254
680-228110-6	T3-1HT	Total Recoverable	Water	6020B	606254
680-228110-6	T3-1HT	Total Recoverable	Water	6020B	606254
680-228110-7	T3-2HT	Total Recoverable	Water	6020B	606254
680-228110-8	T3-2HTS	Total Recoverable	Water	6020B	606254
680-228110-8	T3-2HTS	Total Recoverable	Water	6020B	606254
680-228110-9	T3-3HT	Total Recoverable	Water	6020B	606254
680-228110-9	T3-3HT	Total Recoverable	Water	6020B	606254
680-228110-10	T3-3HTS	Total Recoverable	Water	6020B	606254
680-228110-10	T3-3HTS	Total Recoverable	Water	6020B	606254
680-228110-11	DUP-4	Total Recoverable	Water	6020B	606254
680-228110-11	DUP-4	Total Recoverable	Water	6020B	606254
680-228110-12	FB-3	Total Recoverable	Water	6020B	606254
680-228110-13	EB-3	Total Recoverable	Water	6020B	606254
MB 400-606254/1-A ^5	Method Blank	Total Recoverable	Water	6020B	606254
LCS 400-606254/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020B	606254
680-228110-1 MS	T1-1HT	Total Recoverable	Water	6020B	606254
680-228110-1 MSD	T1-1HT	Total Recoverable	Water	6020B	606254

Analysis Batch: 606700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-228110-1	T1-1HT	Total Recoverable	Water	6020B	606254
680-228110-2	T1-2HT	Total Recoverable	Water	6020B	606254
680-228110-3	T1-2HTS	Total Recoverable	Water	6020B	606254
680-228110-4	T1-3HT	Total Recoverable	Water	6020B	606254
680-228110-5	T1-3HTS	Total Recoverable	Water	6020B	606254
680-228110-6	T3-1HT	Total Recoverable	Water	6020B	606254
680-228110-7	T3-2HT	Total Recoverable	Water	6020B	606254
680-228110-8	T3-2HTS	Total Recoverable	Water	6020B	606254
680-228110-12	FB-3	Total Recoverable	Water	6020B	606254
680-228110-13	EB-3	Total Recoverable	Water	6020B	606254

General Chemistry

Analysis Batch: 756570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-228110-1	T1-1HT	Total/NA	Water	2540C-2011	

General Chemistry (Continued)

Analysis Batch: 756570 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-228110-2	T1-2HT	Total/NA	Water	2540C-2011	
680-228110-3	T1-2HTS	Total/NA	Water	2540C-2011	
680-228110-4	T1-3HT	Total/NA	Water	2540C-2011	
680-228110-5	T1-3HTS	Total/NA	Water	2540C-2011	
680-228110-6	T3-1HT	Total/NA	Water	2540C-2011	
680-228110-7	T3-2HT	Total/NA	Water	2540C-2011	
680-228110-8	T3-2HTS	Total/NA	Water	2540C-2011	
680-228110-9	T3-3HT	Total/NA	Water	2540C-2011	
680-228110-10	T3-3HTS	Total/NA	Water	2540C-2011	
680-228110-11	DUP-4	Total/NA	Water	2540C-2011	
680-228110-12	FB-3	Total/NA	Water	2540C-2011	
680-228110-13	EB-3	Total/NA	Water	2540C-2011	
MB 680-756570/1	Method Blank	Total/NA	Water	2540C-2011	
LCS 680-756570/2	Lab Control Sample	Total/NA	Water	2540C-2011	
LCSD 680-756570/3	Lab Control Sample Dup	Total/NA	Water	2540C-2011	
680-228018-F-1 DU	Duplicate	Total/NA	Water	2540C-2011	
680-228018-F-2 DU	Duplicate	Total/NA	Water	2540C-2011	

Analysis Batch: 756843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-228110-1	T1-1HT	Total/NA	Water	2320B-2011	
680-228110-2	T1-2HT	Total/NA	Water	2320B-2011	
680-228110-3	T1-2HTS	Total/NA	Water	2320B-2011	
680-228110-4	T1-3HT	Total/NA	Water	2320B-2011	
680-228110-5	T1-3HTS	Total/NA	Water	2320B-2011	
680-228110-6	T3-1HT	Total/NA	Water	2320B-2011	
680-228110-7	T3-2HT	Total/NA	Water	2320B-2011	
680-228110-8	T3-2HTS	Total/NA	Water	2320B-2011	
680-228110-9	T3-3HT	Total/NA	Water	2320B-2011	
680-228110-10	T3-3HTS	Total/NA	Water	2320B-2011	
680-228110-11	DUP-4	Total/NA	Water	2320B-2011	
680-228110-12	FB-3	Total/NA	Water	2320B-2011	
680-228110-13	EB-3	Total/NA	Water	2320B-2011	
MB 680-756843/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-756843/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-756843/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-228110-4 DU	T1-3HT	Total/NA	Water	2320B-2011	

Field Service / Mobile Lab

Analysis Batch: 756450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-228110-1	T1-1HT	Total/NA	Water	Field Sampling	
680-228110-2	T1-2HT	Total/NA	Water	Field Sampling	
680-228110-3	T1-2HTS	Total/NA	Water	Field Sampling	
680-228110-4	T1-3HT	Total/NA	Water	Field Sampling	
680-228110-5	T1-3HTS	Total/NA	Water	Field Sampling	
680-228110-6	T3-1HT	Total/NA	Water	Field Sampling	
680-228110-7	T3-2HT	Total/NA	Water	Field Sampling	
680-228110-8	T3-2HTS	Total/NA	Water	Field Sampling	
680-228110-9	T3-3HT	Total/NA	Water	Field Sampling	

Field Service / Mobile Lab (Continued)

Analysis Batch: 756450 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-228110-10	T3-3HTS	Total/NA	Water	Field Sampling	

Lab Chronicle

Client: Southern Company
Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

Client Sample ID: T1-1HT

Lab Sample ID: 680-228110-1

Date Collected: 12/20/22 07:51

Matrix: Water

Date Received: 12/21/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		250	5 mL	5 mL	756996	12/28/22 10:17	OK	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			606565	12/28/22 15:10	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606563	12/28/22 17:14	NTH	EET PEN
	Instrument ID: Goofy									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606700	12/29/22 12:58	NTH	EET PEN
	Instrument ID: Goofy									
Total/NA	Analysis	2320B-2011		1			756843	12/23/22 05:24	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	756570	12/22/22 14:22	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			756450	12/20/22 07:51	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: T1-2HT

Lab Sample ID: 680-228110-2

Date Collected: 12/20/22 08:01

Matrix: Water

Date Received: 12/21/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		250	5 mL	5 mL	756996	12/28/22 12:29	OK	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			606565	12/28/22 15:25	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606563	12/28/22 17:17	NTH	EET PEN
	Instrument ID: Goofy									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606700	12/29/22 13:02	NTH	EET PEN
	Instrument ID: Goofy									
Total/NA	Analysis	2320B-2011		1			756843	12/23/22 05:05	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	756570	12/22/22 14:22	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			756450	12/20/22 08:01	T1C	EET SAV
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

Client Sample ID: T1-2HTS

Lab Sample ID: 680-228110-3

Date Collected: 12/20/22 07:56

Matrix: Water

Date Received: 12/21/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		250	5 mL	5 mL	756996	12/28/22 12:42	OK	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			606565	12/28/22 15:28	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606563	12/28/22 17:20	NTH	EET PEN
	Instrument ID: Goofy									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606700	12/29/22 13:05	NTH	EET PEN
	Instrument ID: Goofy									
Total/NA	Analysis	2320B-2011		1			756843	12/23/22 05:15	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	756570	12/22/22 14:22	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			756450	12/20/22 07:56	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: T1-3HT

Lab Sample ID: 680-228110-4

Date Collected: 12/20/22 08:18

Matrix: Water

Date Received: 12/21/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		250	5 mL	5 mL	756996	12/28/22 13:22	OK	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			606565	12/28/22 15:31	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606563	12/28/22 17:23	NTH	EET PEN
	Instrument ID: Goofy									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606700	12/29/22 13:08	NTH	EET PEN
	Instrument ID: Goofy									
Total/NA	Analysis	2320B-2011		1			756843	12/23/22 05:55	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	756570	12/22/22 14:22	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			756450	12/20/22 08:18	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: T1-3HTS

Lab Sample ID: 680-228110-5

Date Collected: 12/20/22 08:12

Matrix: Water

Date Received: 12/21/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		250	5 mL	5 mL	756996	12/28/22 13:35	OK	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			606565	12/28/22 16:34	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		1000			606565	12/28/22 17:33	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606563	12/28/22 17:27	NTH	EET PEN
	Instrument ID: Goofy									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606700	12/29/22 13:51	NTH	EET PEN
	Instrument ID: Goofy									
Total/NA	Analysis	2320B-2011		1			756843	12/23/22 06:54	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	756570	12/22/22 14:22	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			756450	12/20/22 08:12	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: T3-1HT

Lab Sample ID: 680-228110-6

Date Collected: 12/20/22 07:07

Matrix: Water

Date Received: 12/21/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		250	5 mL	5 mL	756996	12/28/22 13:48	OK	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			606565	12/28/22 16:37	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		1000			606565	12/28/22 17:36	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606563	12/28/22 17:30	NTH	EET PEN
	Instrument ID: Goofy									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606700	12/29/22 13:54	NTH	EET PEN
	Instrument ID: Goofy									
Total/NA	Analysis	2320B-2011		1			756843	12/23/22 06:39	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	756570	12/22/22 14:22	PG	EET SAV
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

Client Sample ID: T3-1HT

Date Collected: 12/20/22 07:07
Date Received: 12/21/22 09:45

Lab Sample ID: 680-228110-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1			756450	12/20/22 07:07	T1C	EET SAV

Client Sample ID: T3-2HT

Date Collected: 12/20/22 07:18
Date Received: 12/21/22 09:45

Lab Sample ID: 680-228110-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		250	5 mL	5 mL	756996	12/28/22 14:01	OK	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			606565	12/28/22 16:40	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606563	12/28/22 17:33	NTH	EET PEN
	Instrument ID: Goofy									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		100			606700	12/29/22 12:55	NTH	EET PEN
	Instrument ID: Goofy									
Total/NA	Analysis	2320B-2011		1			756843	12/23/22 06:14	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	756570	12/22/22 14:22	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			756450	12/20/22 07:18	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: T3-2HTS

Date Collected: 12/20/22 07:12
Date Received: 12/21/22 09:45

Lab Sample ID: 680-228110-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		250	5 mL	5 mL	756996	12/28/22 14:14	OK	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			606565	12/28/22 16:43	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		1000			606565	12/28/22 17:42	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606563	12/28/22 17:37	NTH	EET PEN
	Instrument ID: Goofy									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606700	12/29/22 13:57	NTH	EET PEN
	Instrument ID: Goofy									

Client Sample ID: T3-2HTS

Lab Sample ID: 680-228110-8

Date Collected: 12/20/22 07:12

Matrix: Water

Date Received: 12/21/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			756843	12/23/22 06:29	PG	EET SAV
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	756570	12/22/22 14:22	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			756450	12/20/22 07:12	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: T3-3HT

Lab Sample ID: 680-228110-9

Date Collected: 12/20/22 07:38

Matrix: Water

Date Received: 12/21/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		250	5 mL	5 mL	756996	12/28/22 14:27	OK	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			606565	12/28/22 16:47	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		1000			606565	12/28/22 17:45	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606563	12/28/22 17:53	NTH	EET PEN
	Instrument ID: Goofy									
Total/NA	Analysis	2320B-2011		1			756843	12/23/22 07:22	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	756570	12/22/22 14:22	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			756450	12/20/22 07:38	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: T3-3HTS

Lab Sample ID: 680-228110-10

Date Collected: 12/20/22 07:30

Matrix: Water

Date Received: 12/21/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		250	5 mL	5 mL	756996	12/28/22 14:41	OK	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			606565	12/28/22 16:50	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		1000			606565	12/28/22 17:48	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606563	12/28/22 17:56	NTH	EET PEN
	Instrument ID: Goofy									

Lab Chronicle

Client: Southern Company
Job ID: 680-228110-1
Project/Site: Plant McManus Surface Water

Client Sample ID: T3-3HTS
Lab Sample ID: 680-228110-10
Date Collected: 12/20/22 07:30
Matrix: Water
Date Received: 12/21/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			756843	12/23/22 07:03	PG	EET SAV
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	756570	12/22/22 14:22	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			756450	12/20/22 07:30	T1C	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: DUP-4
Lab Sample ID: 680-228110-11
Date Collected: 12/20/22 00:00
Matrix: Water
Date Received: 12/21/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		250	5 mL	5 mL	756996	12/28/22 14:54	OK	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			606565	12/28/22 16:53	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		1000			606565	12/28/22 17:51	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606563	12/28/22 17:59	NTH	EET PEN
	Instrument ID: Goofy									
Total/NA	Analysis	2320B-2011		1			756843	12/23/22 07:13	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	756570	12/22/22 14:22	PG	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: FB-3
Lab Sample ID: 680-228110-12
Date Collected: 12/20/22 09:10
Matrix: Water
Date Received: 12/21/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	756996	12/28/22 15:07	OK	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			606565	12/28/22 16:56	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606563	12/28/22 18:03	NTH	EET PEN
	Instrument ID: Goofy									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			606700	12/29/22 12:48	NTH	EET PEN
	Instrument ID: Goofy									
Total/NA	Analysis	2320B-2011		1			756843	12/23/22 06:20	PG	EET SAV
	Instrument ID: MANTECH 2									

Lab Chronicle

Client: Southern Company
Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

Client Sample ID: FB-3

Lab Sample ID: 680-228110-12

Date Collected: 12/20/22 09:10

Matrix: Water

Date Received: 12/21/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540C-2011		1	200 mL	200 mL	756570	12/22/22 14:22	PG	EET SAV

Client Sample ID: EB-3

Lab Sample ID: 680-228110-13

Date Collected: 12/20/22 09:15

Matrix: Water

Date Received: 12/21/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	756996	12/28/22 15:46	OK	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			606565	12/28/22 16:59	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			606700	12/29/22 12:45	NTH	EET PEN
	Instrument ID: Goofy									
Total/NA	Analysis	2320B-2011		1			756843	12/23/22 06:45	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	2540C-2011		1	200 mL	200 mL	756570	12/22/22 14:22	PG	EET SAV
	Instrument ID: NOEQUIP									

[1] Completion dates and times are reported or not reported per method requirements or individual lab discretion.

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Southern Company
Job ID: 680-228110-1
Project/Site: Plant McManus Surface Water

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Georgia	State	E87052	06-30-23

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

Method Summary

Client: Southern Company
Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

Method	Method Description	Protocol	Laboratory
300.0-1993 R2.1	Anions, Ion Chromatography	MCAWW	EET SAV
6020B	Metals (ICP/MS)	SW846	EET PEN
2320B-2011	Alkalinity, Total	SM	EET SAV
2540C-2011	Total Dissolved Solids (Dried at 180 °C)	SM	EET SAV
Field Sampling	Field Sampling	EPA	EET SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET PEN

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Meredith Duncan, William Leaker	Lab PM: Fuller David	Carrier Tracking No(s):	COC No:
Client Contact: Kristen Jurinko	Phone: 470-895-0650	E-Mail: David.Fuller@et.eurofinsus.com	State of Origin: GA	Page: Page 1 of 2
Company: Southern Company	PWSID:			Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:			
City: Atlanta	TAT Requested (days): 4 Days			
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone: 404-506-7116(Tel)	Lab Project #: 68027841			
Email: KNJURINK@SOUTHERNCO.COM	Lab PO #: GPC82130-0001			
Project Name: Plant McManus Surface Water	Project #:			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Y Trizma, Z other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B Metals - Select List ~~Pensacola~~ Pit	300_ORGFM_28D Chloride Fluoride Sulfate	2320B Alkalinity, Total, Carb/Bicarb	2540C Solids, Total Dissolved (TDS)		6020B - Metals - Select List - SAV TEST BOTTLES									Total Number of containers	Special Instructions/Note: pH
Preservation Code:							D	N	N	N		D										
T1-1HT	12/20/22	0751	G	WS			X	X	X	X		X									5	7.56
T1-2HT	12/20/22	0801	G	WS			X	X	X	X		X									5	7.55
T1-2HTS	12/20/22	0756	G	WS			X	X	X	X		X									5	7.57
T1-3HT	12/20/22	0818	G	WS			X	X	X	X		X									5	7.53
T1-3HTS	12/20/22	0812	G	WS			X	X	X	X		X									5	7.54
T3-1HT	12/20/22	0707	G	WS			X	X	X	X		X									5	6.58
T3-2HT	12/20/22	0718	G	WS			X	X	X	X		X									5	7.31
T3-2HTS	12/20/22	0712	G	WS			X	X	X	X		X									5	7.14
T3-3HT	12/20/22	0738	G	WS			X	X	X	X		X									5	7.46
T3-3HTS	12/20/22	0730	G	WS			X	X	X	X		X									5	7.39
DUP-4	12/20/22	—	G	WS			X	X	X	X		X									5	

680-228110 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Meredith Duncan	12/21/22 0937	Resolute		12/21/22 0937	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No:

Cooler Temperature(s) °C and Other Remarks: 2.9/2.9 1.1/1.1

Ver: 01/16/2019

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Meredith Duncan, William Lacker	Lab PM: Fuller David	Carrier Tracking No(s):	COC No.:
Client Contact: Kristen Jurinko	Phone: 470-895-0650	E-Mail: David Fuller@et.eurofinsus com	State of Origin: GA	Page: Page 2 of 2
Company: Southern Company	PWSID:			Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:			
City: Atlanta	TAT Requested (days): 4 Days			
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone: 404-506-7116(Tel)	Lab Project #: 68027841			
Email: KNJURINK@SOUTHERNCO COM	Lab PO #: GPC82130-0001			
Project Name: Plant McManus Surface Water	Project #:			
Site:	SSOW#:			

Analysis Requested

Columns: Field Filtered Sample (Yes or No); Perform MS/MSD (Yes or No); 6020B Metals - Select List ~~Ponsasola~~ Pi+; 300_ORGFM_28D - Chloride Fluoride Sulfate; 2320B Alkalinity, Total, Carb/Bicarb; 2540C Solids, Total Dissolved (TDS); 6020B - Metals Select List - SAV TEST BOTTLES; Total Number of containers

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered	MS/MSD	6020B Metals Pi+	300_ORGFM_28D	2320B	2540C	6020B SAV	Total Number of containers	Special Instructions/Note
			Preservation Code				D	N	N	N	D		
FB-3	12/20/22	0910	G	WQ			X	X	X	X	X		
EB-3	12/20/22	0915	G	WQ			X	X	X	X	X		

Preservation Codes:
A HCL; B - NaOH; C - Zn Acetate; D Nitric Acid; E - NaHSO4; F MeOH; G - Amchlor; H Ascorbic Acid; I Ice; J DI Water; K EDTA; L EDA
M - Hexane; N - None; O AsNaO2; P Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T TSP Dodecahydrate; U Acetone; V MCAA; W pH 4-5; Y Trizma; Z - other (specify)
Other:

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☐ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For ________ Months*

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Meredith Duncan	12/21/22 0937	Resolute	[signature]	12/21/22 0937	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No | Cooler Temperature(s) °C and Other Remarks.

Ver: 01/16/2019

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone: 912-354-7858 Fax: 912-352-0165

Chain of Custody Record

eurofins

12/30/2022

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fuller, David	Carrier Tracking No(s):	COC No: 680-721977.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: David.Fuller@et.eurofinsus.com	State of Origin: Georgia	Page: Page 1 of 2
Company: Eurofins Environment Testing Southeast,		Accreditations Required (See note): State - Georgia		Job #: 680-228110-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 12/27/2022			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514	PO #			
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	WO #:			
Email:	Project #: 68027841			
Project Name: Plant McManus Surface Water	SSOW#:			
Site:				

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B/3005A Select 7 Surface Water Metals	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
T1-1HT (680-228110-1)	12/20/22	07:51 Eastern		Water			X	1	THESE SAMPLES HAVE HIGH SALINITY!
T1-2HT (680-228110-2)	12/20/22	08:01 Eastern		Water			X	1	THESE SAMPLES HAVE HIGH SALINITY!
T1-2HTS (680-228110-3)	12/20/22	07:56 Eastern		Water			X	1	THESE SAMPLES HAVE HIGH SALINITY!
T1-3HT (680-228110-4)	12/20/22	08:18 Eastern		Water			X	1	THESE SAMPLES HAVE HIGH SALINITY!
T1-3HTS (680-228110-5)	12/20/22	08:12 Eastern		Water			X	1	THESE SAMPLES HAVE HIGH SALINITY!
T3-1HT (680-228110-6)	12/20/22	07:07 Eastern		Water			X	1	THESE SAMPLES HAVE HIGH SALINITY!
T3-2HT (680-228110-7)	12/20/22	07:18 Eastern		Water			X	1	THESE SAMPLES HAVE HIGH SALINITY!
T3-2HTS (680-228110-8)	12/20/22	07:12 Eastern		Water			X	1	THESE SAMPLES HAVE HIGH SALINITY!
T3-3HT (680-228110-9)	12/20/22	07:38 Eastern		Water			X	1	THESE SAMPLES HAVE HIGH SALINITY!

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southeast, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
			M	12-22-22 9:19	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.1, 2.6°C

Ver: 06/08/2021

Page 35 of 38

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone: 912-354-7858 Fax: 912-352-0165

Chain of Custody Record

eurofins

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fuller, David	Carrier Tracking No(s):	COC No: 680-721977.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: David.Fuller@et.eurofinsus.com	State of Origin: Georgia	Page: Page 2 of 2
Company: Eurofins Environment Testing Southeast,		Accreditations Required (See note): State - Georgia		Job #: 680-228110-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 12/27/2022			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email	WO #:			
Project Name: Plant McManus Surface Water	Project #: 68027841			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B/3005A Select 7 Surface Water Metals	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
T3-3HTS (680-228110-10)	12/20/22	07:30 Eastern		Water			X	1	THESE SAMPLES HAVE HIGH SALINITY!
DUP-4 (680-228110-11)	12/20/22	Eastern		Water			X	1	THESE SAMPLES HAVE HIGH SALINITY!
FB-3 (680-228110-12)	12/20/22	09:10 Eastern		Water			X	1	THESE SAMPLES HAVE HIGH SALINITY!
EB-3 (680-228110-13)	12/20/22	09:15 Eastern		Water			X	1	THESE SAMPLES HAVE HIGH SALINITY!

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southeast, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:		Method of Shipment:	
Relinquished by	Date/Time:	Company	Received by: JW	Date/Time: 12-22-22 9:19	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company	
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 2.6, 1.1° C.			

Ver: 06/08/2021

12/30/2022

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 680-228110-1

Login Number: 228110

List Source: Eurofins Savannah

List Number: 1

Creator: Johnson, Corey M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 680-228110-1

Login Number: 228110
List Number: 2
Creator: Peckinpaugh, Marshall

List Source: Eurofins Pensacola
List Creation: 12/22/22 02:04 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.1°C/2.6°C IR10
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Resolute
Environmental & Water Resources Consulting

EQUIPMENT CALIBRATION LOG

Field Technician: William Lacker	Date: 6/7/22	Time (Calibration): 12:36	Time (Mid-day Check):
AquaTroll SN: 789301	Turbidity Meter Type: LaMotte 2020	SN: 2068-0320	
Project: June 2022 Surface Water	Weather Conditions: 89°/68° sunny w/ partly cloudy		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air cal)				104.10	
Specific Conductance (µS/cm)	21470032 04/23	31.19	4490	4528.4	
pH (4)	21470032 04/24	31.02	4	4.13	
pH (7)	21380102 04/23	30.05	7	7.09	
pH (10)	20080056 04/23	29.54	10	10.05	
ORP (mV)	21140143 04/23	29.41	228	211.7	

		Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU		0	0.00	+/-0.5 NTU	Yes	No	
Turbidity 1 NTU		1	1.17	+/- 0.5 NTU	Yes	No	
Turbidity 10 NTU		10	10.37	+/- 0.5 NTU	Yes	No	

		Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check			4		+/- 0.1 SU	Yes	No	
Mid-Day pH (7) check			7		+/- 0.1 SU	Yes	No	
Mid-Day pH (10) check			10		+/- 0.1 SU	Yes	No	

Calibration Report

Instrument	Aqua TROLL 400
Serial Number	789301
Created	6/7/2022

Sensor

Sensor	RDO
Serial Number	878603
Last Calibrated	6/7/2022

Calibration Details

Slope	1.042328
Offset	0.00 mg/L

Calibration point 100%

Concentration	7.02 mg/L
Temperature	32.21 °C
Barometric Pressure	1,018.0 mbar

Sensor

Sensor	Conductivity
Serial Number	789301
Last Calibrated	6/7/2022

Calibration Details

Cell Constant	0.98
Reference Temperature	25.00 °C
TDS Conversion Factor (ppm)	0.65

Sensor

Sensor	Level
Serial Number	787061
Last Calibrated	Factory Defaults

Sensor

Sensor	pH/ORP
Serial Number	21177
Last Calibrated	6/7/2022

Calibration Details

Total Calibration Points	3

Calibration Point 1

pH of Buffer	4.01 pH
pH mV	137.9 mV
Temperature	31.02 °C

Calibration Point 2

pH of Buffer	6.99 pH
pH mV	-37.3 mV
Temperature	30.05 °C

Calibration Point 3

pH of Buffer	9.96 pH
pH mV	-204.2 mV
Temperature	29.54 °C

Slope and Offset 1

Slope	-58.78 mV/pH
Offset	-37.9 mV

Slope and Offset 2

Slope	-56.19 mV/pH
Offset	-37.8 mV

ORP

ORP Solution	ORP Standard
Offset	48.6 mV
Temperature	29.41 °C

Location Properties BG-1HT
Location Name = Device Location

Report Properties
Start Time = 2022-06-07 16:38:06
Time Offset = -04:00:00
Duration = 00:00:22
Readings = 12

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	4.352145	69.56929	100.8126	40403.08	34.50235	34196.7	21.84498	22.22785	24.75058
########	4.35694	69.48421	100.7433	40393.12	34.32939	34284.22	21.90707	22.28474	24.75669
########	4.356794	69.46958	100.7264	40392.38	34.31182	34293.27	21.91349	22.29063	24.75714
########	4.356647	69.45494	100.7094	40391.64	34.29426	34302.32	21.91992	22.29651	24.7576
########	4.3565	69.44031	100.6925	40390.91	34.2767	34311.38	21.92634	22.3024	24.75805
########	4.405722	69.86126	101.412	40400.54	34.07515	34432.32	22.01212	22.38101	24.75215
########	4.408024	69.87826	101.4426	40400.76	34.06252	34439.55	22.01725	22.38571	24.75201
########	4.410326	69.89526	101.4733	40400.98	34.04988	34446.79	22.02238	22.39041	24.75188
########	4.412627	69.91226	101.504	40401.2	34.03725	34454.02	22.02751	22.39512	24.75174
########	4.419891	69.84914	101.4744	40298.92	33.69339	34560.49	22.103	22.46432	24.81458
########	4.421187	69.85434	101.4869	40294.46	33.67355	34567.84	22.10822	22.4691	24.81732
########	4.422483	69.85954	101.4995	40290	33.6537	34575.19	22.11343	22.47388	24.82006

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.010355	-0.06447	0.487769	7.537376	-68.9955	96.09503	1016.06	33.87033	
1.010463	-0.06422	0.488342	7.529408	-68.4964	96.15667	1016.068	33.87036	
1.010474	-0.06439	0.487959	7.528841	-68.46	96.16071	1016.069	33.87019	
1.010485	-0.06455	0.487577	7.528274	-68.4236	96.16476	1016.069	33.87003	
1.010496	-0.06472	0.487194	7.527707	-68.3872	96.16879	1016.069	33.86986	
1.010632	-0.06075	0.496351	7.5213	-67.9892	96.24384	1016.035	33.87	
1.01064	-0.06057	0.496771	7.520855	-67.9615	96.24844	1016.033	33.87	
1.010648	-0.06039	0.497191	7.52041	-67.9337	96.25304	1016.032	33.87	
1.010657	-0.0602	0.497611	7.519964	-67.906	96.25763	1016.03	33.87	
1.010835	-0.04886	0.52378	7.515541	-67.5764	96.32788	1016.084	33.87897	
1.010846	-0.04827	0.525142	7.515205	-67.5531	96.3326	1016.086	33.87938	
1.010857	-0.04768	0.526504	7.51487	-67.5297	96.33733	1016.088	33.87979	

Location Properties BG-2HT
Location Name = Device Location

Report Properties
Start Time = 2022-06-07 16:20:11
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	4.842863	77.79829	112.8284	42947.68	34.26565	36489.95	23.47663	23.71847	23.28415
########	4.837636	77.44833	112.4069	42917.3	34.01505	36613.23	23.56474	23.7986	23.30065
########	4.834672	77.38356	112.3186	42912.66	33.99417	36621.66	23.57076	23.80408	23.30316
########	4.831708	77.31879	112.2304	42908.02	33.97329	36630.08	23.57679	23.80955	23.30567
########	4.828744	77.25401	112.1421	42903.39	33.95241	36638.5	23.58281	23.81503	23.30818
########	4.824914	76.83352	111.6381	42875.27	33.77124	36723.13	23.64326	23.87004	23.32347
########	4.824518	76.80596	111.6045	42873.29	33.75822	36729.23	23.64761	23.874	23.32455
########	4.824122	76.7784	111.5709	42871.32	33.7452	36735.33	23.65197	23.87796	23.32562
########	4.823726	76.75085	111.5374	42869.34	33.73218	36741.43	23.65633	23.88193	23.32669
########	4.80621	76.25777	110.8947	42807.16	33.38308	36899.16	23.76892	23.98446	23.36059
########	4.805303	76.22665	110.8549	42803.77	33.36376	36907.93	23.77518	23.99015	23.36243

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.011648	-0.06846	0.478564	7.529131	-68.4505	98.97852	1016.129	34.36	
1.011803	-0.06756	0.480635	7.523257	-68.0777	99.02705	1016.129	34.36	
1.011815	-0.06777	0.480156	7.522879	-68.0522	99.03084	1016.129	34.36	
1.011827	-0.06798	0.479678	7.5225	-68.0266	99.03463	1016.13	34.36	
1.011839	-0.06819	0.479199	7.522122	-68.0011	99.03842	1016.13	34.36	
1.011949	-0.0789	0.454492	7.516189	-67.6358	99.04403	1016.121	34.3514	
1.011957	-0.07938	0.45339	7.515813	-67.6123	99.04522	1016.121	34.35101	
1.011965	-0.07985	0.452287	7.515437	-67.5889	99.04641	1016.12	34.35062	
1.011972	-0.08033	0.451185	7.51506	-67.5654	99.0476	1016.12	34.35023	
1.01218	-0.07933	0.453488	7.513478	-67.381	99.07452	1016.146	34.35024	
1.012191	-0.0795	0.453101	7.51329	-67.3655	99.07586	1016.147	34.35007	

Location Properties T1-4HT
Location Name = Device Location

Report Properties
Start Time = 2022-06-07 18:09:39
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	5.282955	79.93094	116.9349	37542.12	31.19789	33568.31	21.39799	21.8194	26.63675
########	5.262061	79.6104	116.4669	37540.34	31.19431	33568.77	21.39831	21.8197	26.63801
########	5.241166	79.28987	115.999	37538.57	31.19074	33569.23	21.39862	21.82	26.63927
########	5.066391	76.59417	112.0767	37615.87	31.12392	33676.82	21.47436	21.88993	26.58454
########	5.052888	76.38668	111.7742	37618.26	31.12011	33681.15	21.47741	21.89275	26.58285
########	5.039385	76.17918	111.4717	37620.66	31.1163	33685.49	21.48046	21.89557	26.58115
########	5.025881	75.97169	111.1692	37623.05	31.11249	33689.82	21.4835	21.89838	26.57946
########	4.890463	73.86621	108.1043	37635.79	31.10021	33708.31	21.49651	21.9104	26.57046
########	4.880774	73.71607	107.8857	37637.73	31.09836	33711.1	21.49848	21.91222	26.56909
########	4.871086	73.56593	107.6672	37639.66	31.09651	33713.9	21.50045	21.91403	26.56772
########	4.766313	71.97998	105.3492	37679.12	31.03681	33783.77	21.5496	21.95945	26.5399

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.011173	-0.07191	0.470613	7.451541	-63.4427	98.82546	1016.024	34.53345	
1.011174	-0.07197	0.470464	7.451041	-63.4135	98.83092	1016.022	34.53194	
1.011175	-0.07204	0.470316	7.450542	-63.3844	98.83637	1016.021	34.53044	
1.011254	-0.06928	0.476667	7.44415	-63.0215	98.86288	1016.038	34.5223	
1.011258	-0.06917	0.476926	7.44372	-62.9967	98.86568	1016.038	34.52142	
1.011261	-0.06906	0.477185	7.44329	-62.972	98.86849	1016.038	34.52055	
1.011265	-0.06895	0.477443	7.442861	-62.9472	98.8713	1016.038	34.51968	
1.011278	-0.06503	0.486487	7.437541	-62.6394	98.90311	1016.048	34.50259	
1.011281	-0.0648	0.487001	7.437176	-62.6185	98.90514	1016.049	34.50165	
1.011283	-0.06458	0.487516	7.436811	-62.5975	98.90717	1016.049	34.50071	
1.011339	-0.06639	0.483351	7.431591	-62.2934	98.96976	1016.024	34.48372	

Location Properties T1-4HTS
Location Name = Device Location

Report Properties
Start Time = 2022-06-07 18:06:45
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	5.550097	84.48286	123.4142	37135.81	31.72372	32909.48	20.93498	21.39116	26.92818
########	5.550097	84.48286	123.4142	37135.81	31.72372	32909.48	20.93498	21.39116	26.92818
########	5.420782	82.54925	120.5861	37171.32	31.74795	32927.44	20.94767	21.40284	26.90246
########	5.412496	82.42534	120.4049	37173.6	31.7495	32928.59	20.94848	21.40358	26.90081
########	5.404209	82.30143	120.2236	37175.88	31.75106	32929.74	20.94929	21.40433	26.89916
########	5.395923	82.17753	120.0424	37178.15	31.75261	32930.89	20.9501	21.40508	26.89751
########	5.349734	81.45068	118.9839	37208.88	31.74743	32961	20.97128	21.42465	26.87531
########	5.344407	81.36938	118.8652	37211.16	31.7478	32962.81	20.97256	21.42583	26.87366
########	5.339078	81.28807	118.7465	37213.44	31.74818	32964.63	20.97383	21.42701	26.87201
########	5.333751	81.20676	118.6278	37215.72	31.74855	32966.44	20.97511	21.42818	26.87036
########	5.297558	80.59434	117.7529	37176.18	31.67993	32969.69	20.97728	21.4303	26.89895

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.010651	-0.08382	0.443134	7.526695	-67.8202	96.89316	1015.99	34.9	
1.010651	-0.08382	0.443134	7.526695	-67.8202	96.89316	1015.99	34.9	
1.010653	-0.06431	0.488147	7.514892	-67.1527	97.52088	1016.026	34.89088	
1.010653	-0.06306	0.491031	7.514135	-67.11	97.56111	1016.029	34.8903	
1.010653	-0.06181	0.493916	7.513379	-67.0672	97.60133	1016.031	34.88971	
1.010653	-0.06056	0.4968	7.512622	-67.0244	97.64156	1016.033	34.88913	
1.01067	-0.07714	0.458545	7.506647	-66.6819	97.68231	1015.986	34.8903	
1.010671	-0.0774	0.45794	7.506081	-66.6496	97.69987	1015.984	34.89012	
1.010672	-0.07767	0.457334	7.505515	-66.6174	97.71743	1015.983	34.88995	
1.010673	-0.07793	0.456729	7.504949	-66.5852	97.73499	1015.982	34.88977	
1.010697	-0.06976	0.47558	7.497952	-66.1714	97.81595	1016.026	34.88106	

Location Properties T2-1HT
Location Name = Device Location

Report Properties
Start Time = 2022-06-07 16:54:33
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	5.616908	86.55134	125.9527	34879.8	33.12784	30192.64	19.03496	19.62521	28.66991
########	5.605643	86.38039	125.7036	34882.27	33.13057	30193.41	19.0355	19.62572	28.66787
########	5.594378	86.20946	125.4544	34884.74	33.13331	30194.19	19.03604	19.62622	28.66582
########	5.532991	85.27181	124.0894	34959.91	33.12083	30265.49	19.08566	19.67257	28.60422
########	5.527731	85.19093	123.9718	34962.94	33.12109	30267.99	19.0874	19.67419	28.60173
########	5.52247	85.11005	123.8542	34965.97	33.12135	30270.48	19.08913	19.67581	28.59925
########	5.51721	85.02916	123.7366	34969	33.12162	30272.97	19.09087	19.67743	28.59676
########	5.473823	84.2551	122.6451	34992.97	33.08169	30313.74	19.11925	19.70393	28.57718
########	5.470562	84.20009	122.5667	34995.48	33.07962	30316.95	19.12148	19.70602	28.57512
########	5.467302	84.14508	122.4883	34997.99	33.07755	30320.16	19.12372	19.70811	28.57307
########	5.464042	84.09007	122.4099	35000.5	33.07549	30323.37	19.12595	19.71019	28.57101

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.008761	-0.06567	0.484993	7.585557	-71.4661	89.72636	1016.152	34.43575	
1.00876	-0.06596	0.484328	7.584449	-71.4033	89.7338	1016.154	34.43724	
1.008759	-0.06625	0.483663	7.583341	-71.3405	89.74122	1016.156	34.43874	
1.008801	-0.05989	0.498329	7.571146	-70.6395	89.80697	1016.115	34.4642	
1.008802	-0.0598	0.498556	7.570296	-70.5909	89.81178	1016.114	34.46582	
1.008803	-0.0597	0.498783	7.569448	-70.5423	89.81658	1016.113	34.46745	
1.008804	-0.0596	0.499011	7.568599	-70.4937	89.8214	1016.113	34.46908	
1.008839	-0.07942	0.453278	7.557044	-69.8273	89.8877	1016.146	34.4956	
1.008841	-0.08024	0.451396	7.556269	-69.7827	89.89208	1016.147	34.49733	
1.008844	-0.08106	0.449514	7.555494	-69.738	89.89646	1016.148	34.49905	
1.008846	-0.08187	0.447632	7.554719	-69.6934	89.90084	1016.149	34.50077	

Location Properties T2-2HT
Location Name = Device Location

Report Properties
Start Time = 2022-06-07 17:05:33
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	2.869051	43.1269	63.13158	36496.98	31.02136	32732.48	20.80896	21.27612	27.39938
########	2.811236	42.25428	61.86131	36620.04	30.96517	32874.52	20.9087	21.36844	27.30757
########	2.807337	42.19572	61.77601	36629.96	30.96226	32885.07	20.9161	21.37529	27.30011
########	2.803438	42.13716	61.6907	36639.89	30.95934	32895.61	20.92351	21.38215	27.29266
########	2.732197	41.08507	60.1539	36819.81	30.95001	33062.44	21.04088	21.49059	27.15947
########	2.727818	41.02005	60.05901	36830.49	30.9485	33072.88	21.04822	21.49737	27.15154
########	2.723439	40.95504	59.96413	36841.17	30.947	33083.32	21.05556	21.50416	27.14362
########	2.719061	40.89002	59.86925	36851.86	30.94549	33093.76	21.0629	21.51094	27.13569
########	2.666844	40.0753	58.68551	36963.1	30.90829	33214.88	21.14808	21.58967	27.05411
########	2.663128	40.01846	58.60277	36971.55	30.90641	33223.54	21.15417	21.5953	27.04788
########	2.659412	39.96163	58.52004	36980.01	30.90454	33232.2	21.16027	21.60093	27.04166

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.010794	-0.06288	0.491431	7.406355	-60.8698	94.60312	1016.121	34.75944	
1.010886	-0.06274	0.491761	7.403584	-60.7043	94.90676	1016.138	34.75095	
1.010893	-0.06258	0.492134	7.40339	-60.6929	94.92827	1016.138	34.75071	
1.010899	-0.06242	0.492506	7.403195	-60.6814	94.94977	1016.139	34.75047	
1.01099	-0.07664	0.459698	7.400199	-60.5051	95.10074	1016.173	34.76721	
1.010996	-0.07727	0.458237	7.400007	-60.4937	95.11362	1016.175	34.7678	
1.011002	-0.07791	0.456777	7.399815	-60.4823	95.12651	1016.176	34.76839	
1.011008	-0.07854	0.455317	7.399622	-60.471	95.1394	1016.178	34.76897	
1.011083	-0.06341	0.49022	7.398654	-60.4088	95.38204	1016.135	34.76077	
1.011089	-0.063	0.491165	7.398552	-60.4025	95.39597	1016.134	34.76071	
1.011094	-0.06259	0.492109	7.398451	-60.3963	95.40989	1016.133	34.76065	

Location Properties T2-2HTS
Location Name = Device Location

Report Properties
Start Time = 2022-06-07 16:59:40
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	5.828774	87.22459	127.4787	32449.77	31.65129	28792.04	18.06335	18.71483	30.81686
########	5.828774	87.22459	127.4787	32449.77	31.65129	28792.04	18.06335	18.71483	30.81686
########	5.828774	87.22459	127.4787	32449.77	31.65129	28792.04	18.06335	18.71483	30.81686
########	5.70785	85.42557	124.8448	32489.94	31.64725	28829.66	18.08935	18.73928	30.77876
########	5.699947	85.30801	124.6727	32492.57	31.64698	28832.12	18.09104	18.74088	30.77627
########	5.692046	85.19045	124.5006	32495.19	31.64672	28834.58	18.09274	18.74248	30.77378
########	5.684144	85.0729	124.3285	32497.82	31.64646	28837.03	18.09444	18.74407	30.77129
########	5.635246	84.3185	123.237	32505.12	31.63038	28851.38	18.10435	18.7534	30.76439
########	5.629923	84.23813	123.1199	32506.5	31.62957	28853	18.10546	18.75445	30.76308
########	5.6246	84.15775	123.0028	32507.87	31.62875	28854.61	18.10658	18.7555	30.76178
########	5.619277	84.07738	122.8857	32509.24	31.62794	28856.23	18.1077	18.75655	30.76048

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.008544	-0.08773	0.434125	7.512456	-66.9929	89.33818	1016.25	34.8	
1.008544	-0.08773	0.434125	7.512456	-66.9929	89.33818	1016.25	34.8	
1.008544	-0.08773	0.434125	7.512456	-66.9929	89.33818	1016.25	34.8	
1.008565	-0.05777	0.50323	7.502505	-66.4268	89.75877	1016.203	34.8	
1.008566	-0.05581	0.507746	7.501854	-66.3898	89.78625	1016.2	34.8	
1.008568	-0.05385	0.512261	7.501204	-66.3528	89.81374	1016.197	34.8	
1.008569	-0.0519	0.516777	7.500554	-66.3158	89.84122	1016.194	34.8	
1.008582	-0.06334	0.490368	7.495736	-66.044	89.85916	1016.235	34.8	
1.008583	-0.06306	0.491015	7.495263	-66.0172	89.87096	1016.236	34.8	
1.008584	-0.06278	0.491662	7.49479	-65.9904	89.88277	1016.236	34.8	
1.008585	-0.0625	0.492309	7.494317	-65.9636	89.89458	1016.237	34.8	

Location Properties T2-3HT
Location Name = Device Location

Report Properties
Start Time = 2022-06-07 17:28:44
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	4.408839	65.91207	96.70335	38050.07	30.2514	34581.51	22.11086	22.47798	26.28124
########	4.405968	65.86964	96.64149	38057.14	30.24964	34588.99	22.11615	22.48284	26.27634
########	4.403097	65.82722	96.57963	38064.22	30.24788	34596.47	22.12144	22.48771	26.27143
########	4.400226	65.78479	96.51777	38071.29	30.24611	34603.95	22.12672	22.49257	26.26653
########	4.377334	65.37357	95.9283	38058.21	30.23281	34600.06	22.12391	22.49004	26.27555
########	4.375521	65.34348	95.8849	38060.05	30.23175	34602.37	22.12554	22.49154	26.27427
########	4.373708	65.31339	95.8415	38061.9	30.23069	34604.68	22.12717	22.49304	26.27299
########	4.371894	65.28329	95.7981	38063.74	30.22964	34606.98	22.12881	22.49454	26.27171
########	4.354321	64.99061	95.37527	38008.75	30.15024	34604.7	22.12684	22.49305	26.30974
########	4.353065	64.96916	95.34437	38006.12	30.14647	34604.57	22.12673	22.49297	26.31156
########	4.35181	64.94771	95.31347	38003.49	30.1427	34604.45	22.12663	22.49289	26.31338

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.012017	-0.07906	0.454115	7.43465	-62.3075	97.1431	1016.427	33.86037	
1.012022	-0.07856	0.455275	7.43436	-62.2909	97.14693	1016.428	33.8602	
1.012026	-0.07806	0.456435	7.434069	-62.2742	97.15076	1016.429	33.86003	
1.012031	-0.07755	0.457594	7.433778	-62.2576	97.15459	1016.429	33.85986	
1.012033	-0.07841	0.455607	7.430377	-62.0561	97.15673	1016.412	33.85134	
1.012034	-0.07816	0.456187	7.430139	-62.0422	97.15804	1016.411	33.85094	
1.012036	-0.07791	0.456768	7.429901	-62.0283	97.15935	1016.411	33.85055	
1.012038	-0.07766	0.457348	7.429663	-62.0144	97.16065	1016.41	33.85015	
1.012062	-0.08738	0.434928	7.426811	-61.8408	97.14727	1016.41	33.84148	
1.012063	-0.08782	0.433903	7.426615	-61.829	97.14676	1016.41	33.84093	
1.012064	-0.08827	0.432877	7.42642	-61.8173	97.14624	1016.409	33.84037	

Location Properties T2-3HTS
Location Name = Device Location

Report Properties
Start Time = 2022-06-07 17:24:50
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	6.633162	99.82422	146.0571	35673.08	31.29997	31841.6	20.18455	20.69704	28.03234
########	6.633162	99.82422	146.0571	35673.08	31.29997	31841.6	20.18455	20.69704	28.03234
########	6.653025	100.1457	146.5235	35746.84	31.29548	31909.88	20.23236	20.74142	27.97451
########	6.654307	100.1664	146.5536	35751.6	31.29519	31914.29	20.23545	20.74429	27.97078
########	6.65559	100.1872	146.5837	35756.36	31.2949	31918.69	20.23854	20.74715	27.96704
########	6.656872	100.2079	146.6138	35761.12	31.29461	31923.1	20.24163	20.75002	27.96331
########	6.671432	100.362	146.8569	35786.63	31.28843	31949.23	20.25992	20.767	27.94341
########	6.672595	100.3772	146.8798	35789.68	31.28804	31952.17	20.26198	20.76891	27.94102
########	6.673759	100.3924	146.9028	35792.73	31.28765	31955.11	20.26404	20.77082	27.93863
########	6.674922	100.4076	146.9257	35795.79	31.28726	31958.05	20.26609	20.77273	27.93624
########	6.687526	100.5462	147.1387	35728.41	31.22033	31934.34	20.24935	20.75732	27.98894

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.010237	-0.06334	0.49037	7.63271	-73.7008	94.33463	1016.42	34.07	
1.010237	-0.06334	0.49037	7.63271	-73.7008	94.33463	1016.42	34.07	
1.010274	-0.08042	0.45098	7.610923	-72.4697	94.90527	1016.382	34.06063	
1.010276	-0.08152	0.448437	7.609516	-72.3902	94.94212	1016.38	34.06002	
1.010278	-0.08263	0.445893	7.608109	-72.3107	94.97896	1016.377	34.05942	
1.010281	-0.08373	0.44335	7.606703	-72.2312	95.0158	1016.375	34.05882	
1.010296	-0.07114	0.472381	7.595916	-71.6135	95.02734	1016.372	34.06023	
1.010298	-0.07103	0.472643	7.59487	-71.554	95.04272	1016.371	34.06005	
1.0103	-0.07092	0.472904	7.593824	-71.4945	95.05811	1016.37	34.05986	
1.010301	-0.0708	0.473166	7.592778	-71.435	95.07349	1016.369	34.05968	
1.010311	-0.07801	0.456537	7.580517	-70.7329	95.11165	1016.37	34.06	

Location Properties T2-4HT
Location Name = Device Location

Report Properties
Start Time = 2022-06-07 17:45:18
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	5.0942	75.673	110.9356	35246.84	30.47596	31909.41	20.22999	20.74112	28.37133
########	5.0942	75.673	110.9356	35246.84	30.47596	31909.41	20.22999	20.74112	28.37133
########	5.083878	75.54641	110.7503	35352.62	30.47507	32005.66	20.29741	20.80368	28.28646
########	5.083213	75.53827	110.7383	35359.42	30.47501	32011.86	20.30174	20.80771	28.281
########	5.08255	75.53012	110.7264	35366.23	30.47495	32018.04	20.30608	20.81173	28.27555
########	5.081885	75.52198	110.7145	35373.03	30.4749	32024.24	20.31042	20.81575	28.27009
########	5.082538	75.53436	110.7336	35372.26	30.47688	32022.44	20.30917	20.81459	28.27075
########	5.082298	75.5316	110.7296	35374.98	30.47694	32024.87	20.31087	20.81617	28.26857
########	5.082057	75.52885	110.7256	35377.71	30.47701	32027.3	20.31257	20.81775	28.26638
########	5.083523	75.54905	110.7531	35375.58	30.47607	32025.9	20.31158	20.81683	28.26809
########	5.083567	75.54977	110.7541	35375.83	30.47606	32026.13	20.31175	20.81698	28.26789

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.010544	-0.07818	0.456141	7.446539	-63.026	95.02695	1016.21	32.87	
1.010544	-0.07818	0.456141	7.446539	-63.026	95.02695	1016.21	32.87	
1.010594	-0.08679	0.436285	7.441982	-62.77	95.52469	1016.21	32.87	
1.010597	-0.08734	0.435008	7.441689	-62.7535	95.55671	1016.21	32.87	
1.0106	-0.0879	0.433731	7.441396	-62.737	95.58872	1016.21	32.87	
1.010604	-0.08845	0.432454	7.441103	-62.7206	95.62074	1016.21	32.87	
1.010602	-0.06954	0.476075	7.439483	-62.6297	95.62143	1016.227	32.88726	
1.010603	-0.06893	0.477476	7.439293	-62.6191	95.63443	1016.228	32.88802	
1.010605	-0.06833	0.478877	7.439103	-62.6084	95.64744	1016.228	32.88878	
1.010604	-0.14347	0.305539	7.437224	-62.5016	95.69211	1016.203	32.88921	
1.010604	-0.14664	0.298232	7.437093	-62.4942	95.69589	1016.203	32.88953	

Location Properties T2-4HTS
Location Name = Device Location

Report Properties
Start Time = 2022-06-07 17:39:21
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	5.81704	85.74921	125.7426	33193.34	30.45109	30063.28	18.94226	19.54113	30.12653
########	5.807898	85.61741	125.5486	33197	30.45244	30065.89	18.94408	19.54283	30.1232
########	5.798754	85.48561	125.3546	33200.66	30.45379	30068.5	18.9459	19.54453	30.11987
########	5.789611	85.35381	125.1607	33204.32	30.45514	30071.12	18.94771	19.54622	30.11655
########	5.725205	84.41956	123.7884	33204.54	30.46323	30067.1	18.94495	19.54361	30.11637
########	5.71863	84.32452	123.6486	33206.03	30.46414	30067.98	18.94556	19.54419	30.11501
########	5.712055	84.22948	123.5089	33207.52	30.46505	30068.86	18.94617	19.54476	30.11366
########	5.70548	84.13445	123.3691	33209.02	30.46596	30069.74	18.94679	19.54533	30.1123
########	5.650755	83.32309	122.1807	33201	30.47063	30060.05	18.94007	19.53904	30.11957
########	5.646465	83.26015	122.0883	33200.91	30.47109	30059.73	18.93985	19.53883	30.11966
########	5.642176	83.1972	121.996	33200.81	30.47154	30059.41	18.93962	19.53862	30.11975

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.009594	-0.15991	0.267627	7.586613	-70.9058	92.31149	1016.421	33.0306	
1.009595	-0.16477	0.256409	7.585562	-70.8469	92.3466	1016.42	33.02998	
1.009596	-0.16964	0.245192	7.584512	-70.788	92.38171	1016.418	33.02937	
1.009597	-0.1745	0.233974	7.583461	-70.729	92.41682	1016.416	33.02875	
1.009592	-0.11585	0.369254	7.575231	-70.2666	92.44721	1016.429	33.03021	
1.009592	-0.11521	0.370723	7.574439	-70.2221	92.46281	1016.429	33.03003	
1.009592	-0.11458	0.372192	7.573647	-70.1776	92.4784	1016.429	33.02984	
1.009593	-0.11394	0.373661	7.572854	-70.1331	92.494	1016.428	33.02966	
1.009586	-0.10869	0.385769	7.564154	-69.6444	92.56825	1016.438	33.03	
1.009586	-0.10768	0.388111	7.563539	-69.6098	92.57457	1016.439	33.03	
1.009585	-0.10666	0.390454	7.562923	-69.5753	92.58088	1016.439	33.03	

Location Properties T3-4HT
Location Name = Device Location

Report Properties
Start Time = 2022-06-07 17:56:21
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	5.676648	85.67313	125.3216	36600.31	31.32512	32662.59	20.79499	21.23068	222.7911
########	5.631362	85.16064	124.5787	37205.39	31.29415	33213.13	21.14705	21.58854	22.11817
########	5.586078	84.64816	123.8357	37810.47	31.26317	33763.68	21.49911	21.94639	0
########	5.185652	78.36628	114.6667	37382.87	31.17593	33438.91	21.30671	21.73529	26.75051
########	5.155147	77.90326	113.9916	37398.29	31.15879	33462.24	21.3231	21.75046	26.73933
########	5.124641	77.44025	113.3165	37413.72	31.14164	33485.57	21.33949	21.76562	26.72815
########	4.846184	73.12087	107.0349	37510.53	31.06561	33616.08	21.43134	21.85045	26.65927
########	4.825879	72.80796	106.5793	37518.17	31.06027	33625.97	21.4383	21.85688	26.65381
########	4.805573	72.49506	106.1237	37525.8	31.05494	33635.86	21.44526	21.86331	26.64835
########	4.785268	72.18214	105.6681	37533.44	31.0496	33645.76	21.45222	21.86974	26.6429
########	4.582124	69.08239	101.1373	37508.57	30.96602	33671.67	21.47027	21.88659	26.66058

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.010682	-0.07129	0.47205	7.383926	-59.6408	99.69099	1016.13	33.38805	
1.010954	-0.07129	0.472052	7.383239	-59.5979	99.74471	1016.13	33.38882	
1.011225	-0.07128	0.472053	7.382553	-59.555	99.79842	1016.13	33.38958	
1.011112	-0.06133	0.495024	7.376549	-59.2029	99.9151	1016.112	33.40686	
1.01113	-0.06082	0.496191	7.376092	-59.1756	99.93203	1016.112	33.40794	
1.011148	-0.06031	0.497357	7.375637	-59.1482	99.94896	1016.111	33.40901	
1.011241	-0.06063	0.496638	7.370318	-58.8402	100.0026	1016.153	33.43488	
1.011248	-0.06047	0.497001	7.369961	-58.8194	100.0079	1016.155	33.43637	
1.011255	-0.06031	0.497364	7.369604	-58.7986	100.0132	1016.156	33.43786	
1.011262	-0.06015	0.497727	7.369247	-58.7779	100.0185	1016.158	33.43935	
1.011304	-0.05806	0.502564	7.365789	-58.5592	99.98724	1016.123	33.44789	

Location Properties T3-4HTS
Location Name = Device Location

Report Properties
Start Time = 2022-06-07 17:53:52
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	5.359616	80.22509	116.9099	28064.59	32.69941	24466.57	15.10362	15.90327	35.63209
########	5.321812	79.62756	116.0566	28150.12	32.60275	24580.72	15.18102	15.97747	35.52388
########	5.318798	79.57845	115.9865	28153.56	32.59745	24585.9	15.18453	15.98083	35.51952
########	5.315783	79.52935	115.9164	28157.01	32.59214	24591.08	15.18804	15.9842	35.51516
########	5.291298	79.1183	115.3252	28123.64	32.55749	24576.13	15.17794	15.97449	35.55729
########	5.289427	79.08763	115.2812	28123.59	32.55418	24577.45	15.17883	15.97534	35.55735
########	5.287557	79.05696	115.2372	28123.54	32.55087	24578.76	15.17972	15.97619	35.55741
########	5.285686	79.02629	115.1931	28123.49	32.54755	24580.06	15.18061	15.97704	35.55747
########	5.274745	78.75286	114.8289	28106.05	32.4995	24584.55	15.18368	15.97996	35.57953
########	5.273772	78.73236	114.8007	28104.59	32.49662	24584.45	15.18362	15.97989	35.58138
########	5.272799	78.71186	114.7726	28103.13	32.49375	24584.36	15.18356	15.97983	35.58323

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.005997	-0.07885	0.454594	7.55064	-69.3761	89.37376	1016.14	33.33	
1.006087	-0.09563	0.415888	7.539261	-68.7128	89.50744	1016.148	33.33	
1.006091	-0.09643	0.41405	7.538452	-68.6659	89.51785	1016.149	33.33	
1.006096	-0.09723	0.412211	7.537643	-68.619	89.52827	1016.149	33.33	
1.0061	-0.0704	0.474087	7.526659	-67.9858	89.65697	1016.124	33.31318	
1.006102	-0.06947	0.476238	7.525941	-67.9443	89.66556	1016.123	33.31241	
1.006104	-0.06854	0.478389	7.525223	-67.9028	89.67415	1016.122	33.31163	
1.006106	-0.06761	0.48054	7.524504	-67.8612	89.68275	1016.121	33.31086	
1.006124	-0.07089	0.472957	7.512265	-67.1603	89.87045	1016.181	33.32795	
1.006125	-0.07053	0.473794	7.511489	-67.1158	89.88158	1016.184	33.32841	
1.006126	-0.07017	0.474631	7.510714	-67.0714	89.89272	1016.186	33.32888	

Location Properties T4-1HB
Location Name = Device Location

Report Properties
Start Time = 2022-06-07 14:53:09
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	4.034313	61.4935	89.88477	37615.63	31.75154	33318.99	21.22343	21.65734	26.5847
########	4.021118	61.14336	89.41434	37598.86	31.68471	33341.85	21.23942	21.6722	26.59655
########	4.020186	61.12132	89.3843	37597.84	31.68049	33343.32	21.24044	21.67315	26.59728
########	4.019254	61.09927	89.35426	37596.8	31.67628	33344.78	21.24147	21.67411	26.59801
########	3.988461	60.60448	88.64246	37629.22	31.54197	33449.69	21.31515	21.7423	26.57509
########	3.986786	60.57486	88.6005	37630.39	31.53447	33454.97	21.31886	21.74573	26.57427
########	3.985111	60.54525	88.55855	37631.56	31.52696	33460.26	21.32257	21.74917	26.57344
########	3.983436	60.51563	88.51659	37632.73	31.51946	33465.54	21.32629	21.7526	26.57261
########	3.9581	60.10938	87.92915	37646.23	31.48844	33495.22	21.34714	21.77189	26.56308
########	3.956367	60.08143	87.88884	37647.45	31.48436	33498.61	21.34953	21.7741	26.56223
########	3.954634	60.05348	87.84853	37648.66	31.48027	33502.01	21.35192	21.77631	26.56137

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.010856	-0.06758	0.480591	7.355424	-58.1276	142.4897	1016.649	40.23978	
1.010891	-0.0632	0.490692	7.350543	-57.836	142.2499	1016.694	40.23115	
1.010893	-0.06323	0.490642	7.350225	-57.8171	142.2346	1016.696	40.23074	
1.010895	-0.06325	0.490592	7.349907	-57.7982	142.2193	1016.698	40.23034	
1.010995	-0.06953	0.476097	7.34584	-57.5524	142.0153	1016.69	40.2303	
1.011001	-0.06972	0.475656	7.345558	-57.5354	142.0012	1016.69	40.23013	
1.011006	-0.06991	0.475215	7.345276	-57.5184	141.9872	1016.69	40.22996	
1.011011	-0.07011	0.474774	7.344994	-57.5014	141.9731	1016.691	40.22978	
1.011037	-0.06567	0.48501	7.340018	-57.2133	141.7656	1016.69	40.22139	
1.01104	-0.06559	0.485184	7.339715	-57.1955	141.7522	1016.69	40.22101	
1.011043	-0.06552	0.485358	7.339411	-57.1777	141.7388	1016.69	40.22063	

Location Properties T4-1HS
Location Name = Device Location

Report Properties
Start Time = 2022-06-07 14:43:16
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	5.197385	87.27917	124.9206	40039.52	38.30245	31928.97	20.23737	20.75383	24.97554
########	5.196559	87.2569	124.8946	40052.16	38.27283	31952.9	20.25424	20.76939	24.96759
########	5.195734	87.23464	124.8686	40064.8	38.24321	31976.83	20.27112	20.78494	24.95965
########	5.194909	87.21239	124.8427	40077.43	38.21359	32000.77	20.288	20.8005	24.9517
########	5.225177	87.45518	125.2934	40168.82	38.15613	32102.15	20.35941	20.8664	24.89499
########	5.22594	87.4573	125.301	40176.19	38.15351	32109.32	20.36445	20.87106	24.8904
########	5.226703	87.45942	125.3085	40183.57	38.15088	32116.5	20.3695	20.87572	24.88581
########	5.227467	87.46153	125.3161	40190.94	38.14825	32123.67	20.37454	20.88039	24.88122
########	5.245555	87.56407	125.5465	40150.54	37.80537	32260.37	20.47178	20.96924	24.90627
########	5.246926	87.57304	125.565	40150.63	37.7889	32268.56	20.47759	20.97457	24.90621
########	5.248296	87.58201	125.5836	40150.73	37.77243	32276.76	20.4834	20.97989	24.90615

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.007752	-0.06293	0.491321	6.951802	-36.0799	255.2545	1016.759	41.44199	
1.007776	-0.06252	0.492275	6.954195	-36.2163	254.8555	1016.759	41.44146	
1.0078	-0.0621	0.493229	6.956586	-36.3527	254.4565	1016.759	41.44093	
1.007824	-0.06169	0.494183	6.958979	-36.4891	254.0576	1016.759	41.4404	
1.007899	-0.06053	0.496868	6.989211	-38.2142	248.4291	1016.742	41.44033	
1.007904	-0.06045	0.497053	6.991218	-38.3289	248.0623	1016.742	41.44017	
1.007908	-0.06037	0.497237	6.993224	-38.4437	247.6954	1016.741	41.44001	
1.007913	-0.06029	0.497422	6.995231	-38.5584	247.3286	1016.74	41.43985	
1.008116	-0.06111	0.49553	7.023227	-40.1316	241.975	1016.723	41.43126	
1.008126	-0.06112	0.495506	7.025069	-40.2356	241.6263	1016.722	41.43087	
1.008137	-0.06113	0.495482	7.02691	-40.3396	241.2777	1016.721	41.43049	

Location Properties T4-2HB
Location Name = Device Location

Report Properties
Start Time = 2022-06-07 15:15:37
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	3.587692	54.1633	79.33567	38174.99	31.0113	34243.32	21.87428	22.25816	26.19516
########	3.584656	54.11164	79.26158	38175.68	31.00727	34246.3	21.87637	22.26009	26.19468
########	3.556258	53.61324	78.55323	38103.44	30.85463	34271.14	21.89346	22.27624	26.24436
########	3.554166	53.57646	78.50085	38100.18	30.84673	34272.85	21.89464	22.27736	26.2466
########	3.552074	53.53969	78.44848	38096.92	30.83883	34274.57	21.89583	22.27847	26.24884
########	3.520643	53.03193	77.71233	38111.64	30.7855	34319.27	21.92728	22.30753	26.23871
########	3.518686	52.99954	77.66565	38110.95	30.78025	34321.74	21.92901	22.30913	26.23918
########	3.516729	52.96715	77.61897	38110.25	30.775	34324.21	21.93074	22.31074	26.23966
########	3.514773	52.93476	77.5723	38109.56	30.76975	34326.68	21.93247	22.31234	26.24013
########	3.505829	52.69146	77.24108	38125.01	30.72242	34368.59	21.96196	22.33959	26.2295
########	3.50483	52.67076	77.21207	38125.93	30.71919	34371.33	21.96389	22.34137	26.22887

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.011589	-0.06486	0.486868	7.401896	-60.6051	116.9008	1016.55	36.18052	
1.011592	-0.06483	0.486936	7.40076	-60.5403	116.8951	1016.55	36.17996	
1.011656	-0.07296	0.468198	7.394924	-60.1839	116.7834	1016.612	36.16256	
1.011659	-0.07337	0.46725	7.39426	-60.145	116.7766	1016.614	36.16161	
1.011663	-0.07378	0.466302	7.393596	-60.1061	116.7697	1016.617	36.16067	
1.011704	-0.06433	0.488093	7.390864	-59.943	116.6454	1016.584	36.15227	
1.011707	-0.06407	0.488696	7.390616	-59.9281	116.6378	1016.583	36.15157	
1.01171	-0.06381	0.489299	7.390368	-59.9132	116.6302	1016.583	36.15087	
1.011713	-0.06355	0.489903	7.390121	-59.8983	116.6226	1016.583	36.15017	
1.011751	-0.07073	0.473324	7.378376	-59.2198	116.5022	1016.555	36.12402	
1.011753	-0.0709	0.472939	7.377781	-59.1853	116.4944	1016.553	36.12266	

Location Properties T4-2HS
Location Name = Device Location

Report Properties
Start Time = 2022-06-07 15:09:12
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	6.497194	100.552	146.6197	38635.75	32.59207	33742.76	21.52368	21.93279	25.88277
########	6.492029	100.522	146.5714	38705.9	32.61312	33792.16	21.5586	21.9649	25.83586
########	6.491697	100.5201	146.5683	38710.42	32.61448	33795.34	21.56085	21.96697	25.83284
########	6.491364	100.5181	146.5652	38714.93	32.61584	33798.52	21.5631	21.96904	25.82982
########	6.491033	100.5162	146.5621	38719.45	32.61719	33801.7	21.56534	21.9711	25.8268
########	6.492444	100.5319	146.5895	38725.78	32.62241	33804.27	21.56717	21.97278	25.8226
########	6.492372	100.5318	146.5894	38727.88	32.62319	33805.67	21.56816	21.97368	25.8212
########	6.4923	100.5317	146.5894	38729.97	32.62397	33807.06	21.56914	21.97459	25.8198
########	6.492228	100.5316	146.5893	38732.07	32.62474	33808.46	21.57013	21.9755	25.81839
########	6.514012	100.8447	147.045	38711.13	32.59843	33805	21.56767	21.97325	25.83237
########	6.515014	100.8592	147.0661	38710.59	32.59742	33805.11	21.56774	21.97332	25.83273

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.010791	-0.05536	0.508778	7.503412	-66.693	119.7756	1016.57	37.37	
1.01081	-0.06492	0.486742	7.497863	-66.3806	120.8947	1016.598	37.35126	
1.010811	-0.06553	0.485324	7.497506	-66.3605	120.9667	1016.6	37.35005	
1.010812	-0.06615	0.483906	7.497149	-66.3404	121.0387	1016.601	37.34885	
1.010813	-0.06676	0.482488	7.496792	-66.3203	121.1107	1016.603	37.34764	
1.010813	-0.04254	0.538365	7.495508	-66.2454	121.0233	1016.625	37.32468	
1.010813	-0.04172	0.540249	7.495308	-66.2341	121.0485	1016.626	37.32318	
1.010814	-0.0409	0.542134	7.495108	-66.2227	121.0736	1016.628	37.32169	
1.010814	-0.04009	0.544018	7.494907	-66.2113	121.0988	1016.63	37.32019	
1.010821	-0.05651	0.506124	7.491545	-66.0147	121.0509	1016.575	37.30269	
1.010822	-0.05686	0.505332	7.491343	-66.003	121.0519	1016.573	37.30138	

Location Properties T4-3HB
Location Name = Device Location

Report Properties
Start Time = 2022-06-07 15:37:34
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	3.775655	56.45497	82.85493	38627.64	30.11527	35189.57	22.54131	22.87322	25.8882
########	3.774983	56.44358	82.83875	38628.8	30.11246	35192.35	22.54327	22.87502	25.88742
########	3.774311	56.43219	82.82256	38629.96	30.10965	35195.13	22.54523	22.87683	25.88664
########	3.770671	56.34723	82.70048	38639.85	30.09645	35212.21	22.5573	22.88794	25.88002
########	3.77032	56.34032	82.69059	38641.08	30.09526	35214.07	22.55861	22.88914	25.87919
########	3.769969	56.3334	82.6807	38642.32	30.09407	35215.92	22.55992	22.89035	25.87837
########	3.767166	56.26462	82.58469	38551.83	30.05405	35157.95	22.51859	22.85267	25.93913
########	3.766961	56.25972	82.57779	38547.89	30.05193	35155.65	22.51694	22.85118	25.94178
########	3.766755	56.25483	82.57088	38543.95	30.04981	35153.36	22.5153	22.84968	25.94443
########	3.766549	56.24993	82.56397	38540	30.04769	35151.06	22.51366	22.84819	25.94707
########	3.764532	56.21432	82.51704	38577.71	30.03255	35194.74	22.5446	22.87658	25.92171

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.012382	-0.07523	0.462948	7.34401	-57.1851	106.4135	1016.407	34.08014	
1.012385	-0.07493	0.463636	7.343792	-57.1725	106.4095	1016.408	34.07997	
1.012387	-0.07464	0.464323	7.343575	-57.16	106.4055	1016.41	34.0798	
1.0124	-0.07535	0.462681	7.339824	-56.9443	106.3289	1016.339	34.07119	
1.012402	-0.07528	0.462839	7.339593	-56.931	106.3242	1016.336	34.07079	
1.012403	-0.07521	0.462996	7.339363	-56.9178	106.3195	1016.333	34.0704	
1.012385	-0.07521	0.462991	7.33673	-56.7644	106.25	1016.358	34.06176	
1.012385	-0.07522	0.462968	7.336536	-56.7532	106.2453	1016.358	34.06121	
1.012384	-0.07523	0.462944	7.336342	-56.7419	106.2407	1016.358	34.06065	
1.012384	-0.07524	0.462921	7.336149	-56.7307	106.236	1016.357	34.06009	
1.012412	-0.07771	0.457229	7.33425	-56.6194	106.1561	1016.385	34.06028	

Location Properties T4-3HS
Location Name = Device Location

Report Properties
Start Time = 2022-06-07 15:29:23
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	6.319431	96.45768	140.8202	36466.36	32.11836	32094.85	20.47702	20.86165	639581.5
########	6.142983	94.13289	137.3835	37227.02	32.19315	32727.66	20.88485	21.27298	340439.5
########	6.118117	93.95824	137.1264	37841.91	32.1972	33267.17	21.22925	21.62366	181720.4
########	6.09325	93.7836	136.8694	38456.8	32.20125	33806.68	21.57366	21.97435	23001.39
########	6.068384	93.60896	136.6122	39071.69	32.2053	34346.2	21.91807	22.32503	0
########	6.020576	92.70773	135.2927	38524.41	32.24169	33843.32	21.59428	21.99816	25.95758
########	6.014787	92.62206	135.1666	38525.44	32.24461	33842.58	21.59376	21.99767	25.95687
########	6.008997	92.53637	135.0406	38526.48	32.24753	33841.83	21.59324	21.99719	25.95617
########	5.975344	92.03808	134.317	38610.07	32.24497	33916.71	21.64615	22.04586	25.9
########	5.972587	91.99673	134.2567	38613.39	32.24558	33919.28	21.64797	22.04753	25.89777
########	5.969829	91.95538	134.1964	38616.71	32.24619	33921.85	21.64978	22.0492	25.89553

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.010178	-0.07071	0.473381	7.535839	-68.4377	105.7362	1016.457	34.73051	
1.010455	-0.07803	0.456502	7.518459	-67.4596	106.0883	1016.406	34.73034	
1.010709	-0.07862	0.455137	7.517963	-67.432	106.1013	1016.404	34.73018	
1.010963	-0.07921	0.453773	7.517468	-67.4044	106.1142	1016.403	34.73002	
1.011217	-0.0798	0.452408	7.516973	-67.3769	106.1272	1016.402	34.72986	
1.010964	-0.07041	0.474077	7.512137	-67.1059	106.199	1016.41	34.72124	
1.010963	-0.07014	0.474698	7.511796	-67.0869	106.2053	1016.409	34.72086	
1.010961	-0.06987	0.475319	7.511456	-67.0679	106.2115	1016.409	34.72047	
1.011002	-0.07803	0.456484	7.506765	-66.8001	106.2442	1016.426	34.7288	
1.011003	-0.07823	0.456024	7.50646	-66.7828	106.2472	1016.427	34.72902	
1.011004	-0.07843	0.455563	7.506154	-66.7654	106.2501	1016.428	34.72923	

Location Properties T4-4HB
Location Name = Device Location

Report Properties
Start Time = 2022-06-07 15:56:48
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	4.94838	75.41523	110.4013	40329.39	31.04364	36155.82	23.23252	23.50128	24.79579
########	4.833828	73.38275	107.5005	40312.55	30.88836	36237.1	23.28988	23.55411	24.80617
########	4.824427	73.2237	107.2718	40310.85	30.87894	36241.42	23.29292	23.55692	24.80722
########	4.815026	73.06464	107.043	40309.16	30.86952	36245.73	23.29597	23.55973	24.80826
########	4.805624	72.90559	106.8143	40307.46	30.86011	36250.05	23.29901	23.56254	24.80931
########	4.705796	71.36239	104.5564	40220.35	30.7224	36257.5	23.30375	23.56737	24.86305
########	4.698852	71.24994	104.3933	40216.02	30.71314	36259.36	23.30504	23.56859	24.86572
########	4.691907	71.13749	104.2302	40211.7	30.70389	36261.23	23.30634	23.5698	24.86839
########	4.629267	70.14288	102.7903	40233.27	30.65364	36312.14	23.34243	23.60289	24.85506
########	4.624473	70.06744	102.6806	40232.51	30.64867	36314.56	23.34413	23.60446	24.85552
########	4.619678	69.992	102.571	40231.75	30.64371	36316.98	23.34583	23.60603	24.85599

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.012589	-0.07424	0.465236	7.516936	-67.0726	101.3613	1016.269	33.36985	
1.012683	-0.066	0.484245	7.506253	-66.4485	101.3898	1016.287	33.37862	
1.012689	-0.06573	0.484867	7.505558	-66.4076	101.3933	1016.288	33.37901	
1.012694	-0.06546	0.485489	7.504861	-66.3667	101.3968	1016.288	33.37939	
1.012699	-0.06519	0.486111	7.504166	-66.3258	101.4003	1016.289	33.37977	
1.012749	-0.06205	0.493365	7.495472	-65.8181	101.4061	1016.245	33.3709	
1.012753	-0.06175	0.494039	7.494866	-65.7827	101.407	1016.243	33.37067	
1.012757	-0.06146	0.494714	7.494261	-65.7473	101.408	1016.242	33.37043	
1.012801	-0.05525	0.50905	7.486758	-65.3145	101.3878	1016.284	33.37877	
1.012804	-0.05491	0.509819	7.486254	-65.2853	101.3871	1016.284	33.37897	
1.012807	-0.05458	0.510587	7.48575	-65.2561	101.3864	1016.286	33.37917	

Location Properties T4-4HS
Location Name = Device Location

Report Properties
Start Time = 2022-06-07 15:51:58
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	6.590887	99.50237	145.5623	36221.94	31.3437	32324.45	20.71335	21.01089	1144.485
########	6.563735	99.5704	145.6657	37762.26	31.32772	33699.05	21.59469	21.90439	605.0217
########	6.366935	96.79195	141.5662	38129.68	31.40468	33979.26	21.77078	22.08652	487.157
########	6.349409	96.73586	141.4831	38789.39	31.40224	34565.85	22.14672	22.4678	264.1908
########	6.331883	96.67977	141.4	39449.11	31.39981	35152.43	22.52267	22.84908	41.22462
########	6.314358	96.62368	141.3169	40108.83	31.39737	35739.02	22.89861	23.23036	0
########	6.241485	95.38297	139.484	39487.72	31.43318	35166.67	22.52997	22.85834	25.32433
########	6.2342	95.2766	139.327	39487.21	31.43603	35164.5	22.52844	22.85693	25.32466
########	6.226914	95.17025	139.17	39486.69	31.43888	35162.34	22.52691	22.85552	25.32499
########	6.219628	95.06389	139.013	39486.18	31.44172	35160.18	22.52538	22.85411	25.32532
########	6.171394	94.3167	137.9223	39444.19	31.46846	35106.83	22.48758	22.81944	25.35228

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.010617	-0.08587	0.438404	7.545807	-68.8222	99.83382	1016.318	33.45	
1.011276	-0.08716	0.435439	7.558482	-69.5375	99.63398	1016.319	33.45	
1.011381	-0.0782	0.456095	7.544314	-68.7447	99.9801	1016.293	33.45	
1.011661	-0.07846	0.45551	7.543266	-68.6859	99.99426	1016.293	33.45	
1.011941	-0.07871	0.454924	7.542217	-68.6271	100.0084	1016.292	33.45	
1.012221	-0.07896	0.454338	7.541168	-68.5683	100.0226	1016.291	33.45	
1.011935	-0.06539	0.485657	7.537743	-68.3788	100.1457	1016.291	33.44144	
1.011933	-0.06464	0.487384	7.53743	-68.3614	100.1559	1016.29	33.44106	
1.01193	-0.06389	0.489111	7.537117	-68.344	100.1662	1016.29	33.44069	
1.011928	-0.06314	0.490838	7.536803	-68.3267	100.1764	1016.289	33.44031	
1.011891	-0.07789	0.456807	7.533189	-68.1247	100.2828	1016.325	33.44917	

Location Properties BG-1LT
Location Name = Device Location

Report Properties
Start Time = 2022-06-08 10:19:58
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	3.045473	44.35597	65.3381	33790.14	29.65368	31031.88	19.614	20.17072	29.59447
########	3.045323	44.35361	65.33492	33795.55	29.65152	31038.01	19.61827	20.17471	29.58971
########	3.045174	44.35125	65.33173	33800.96	29.64936	31044.14	19.62254	20.17869	29.58496
########	3.041358	44.26036	65.2021	33671.89	29.62611	30938.22	19.5486	20.10985	29.69842
########	3.041135	44.25565	65.19543	33668.32	29.62431	30935.93	19.54699	20.10835	29.70155
########	3.040912	44.25094	65.18876	33664.76	29.6225	30933.63	19.54538	20.10686	29.70469
########	3.042795	44.26184	65.21004	33702.52	29.60384	30978.48	19.57658	20.13601	29.67138
########	3.042813	44.26068	65.20867	33702.05	29.60253	30978.77	19.57677	20.1362	29.67179
########	3.04283	44.25954	65.2073	33701.58	29.60122	30979.05	19.57696	20.13638	29.6722
########	3.042847	44.25838	65.20592	33701.11	29.59991	30979.33	19.57715	20.13656	29.67261
########	3.040952	44.24755	65.18742	33808.23	29.58004	31088.65	19.65331	20.20762	29.57865

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.010352	-0.09319	0.421528	6.523682	-11.0641	181.9326	1018.878	29.87472	
1.010356	-0.09392	0.419837	6.524871	-11.1308	181.9182	1018.878	29.8772	
1.01036	-0.09466	0.418146	6.526061	-11.1974	181.9038	1018.879	29.87967	
1.010313	-0.07003	0.474951	6.542793	-12.1356	181.7093	1018.888	29.92227	
1.010312	-0.06947	0.476244	6.543898	-12.1975	181.6962	1018.889	29.92502	
1.010311	-0.06891	0.477538	6.545003	-12.2595	181.683	1018.889	29.92776	
1.01034	-0.06366	0.48964	6.562715	-13.2527	181.4821	1018.889	29.9539	
1.010341	-0.06298	0.491201	6.563853	-13.3165	181.469	1018.89	29.95591	
1.010342	-0.06231	0.492763	6.564991	-13.3803	181.456	1018.89	29.95792	
1.010342	-0.06163	0.494324	6.56613	-13.4442	181.443	1018.89	29.95993	
1.010405	-0.0595	0.499239	6.581314	-14.2941	181.2518	1018.838	29.99361	

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EQUIPMENT CALIBRATION LOG

Field Technician: Kevin Stephenson	Date: 8/23/22	Time (Calibration): 0718	Time (Mid-day Check): 1202
AquaTroll SN: 789317	Turbidity Meter Type: LaMotte 2020	SN: 7042-3818	
Project: August 2022 McKinney Stephenson	Weather Conditions: 90°/72°, 50%		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air cal)				103.8% 99.6%	
Specific Conductance (µS/cm)	21470032 04/23	25.21	4490	4551.7	
pH (4)	21470032 04/23	25.40	4	4.03	
pH (7)	21380102 04/23	25.72	7	7.04	
pH (10)	20080056 04/23	25.97	10	10.01	
ORP (mV)	21140143 04/23	26.03	228	222.0	

		Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU		0	0.03	+/-0.5 NTU	(Yes)	No	
Turbidity 1 NTU		1	0.97	+/- 0.5 NTU	(Yes)	No	
Turbidity 10 NTU		10	10.12	+/- 0.5 NTU	(Yes)	No	

		Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check		27.05	4	4.09	+/- 0.1 SU	(Yes)	No	
Mid-Day pH (7) check		27.05	7	7.14	+/- 0.1 SU	(Yes)	No	
Mid-Day pH (10) check		27.35	10	10.10	+/- 0.1 SU	(Yes)	No	

Calibration Report

Instrument	Aqua TROLL 400
Serial Number	789317
Created	8/23/2022

Sensor

Sensor	RDO
Serial Number	878599
Last Calibrated	8/23/2022

Calibration Details

Slope	0.9533266
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.52 mg/L
Temperature	26.00 °C
Barometric Pressure	1,014.8 mbar

Sensor

Sensor	Conductivity
Serial Number	789317
Last Calibrated	8/23/2022

Calibration Details

Cell Constant	0.992
Reference Temperature	25.00 °C
TDS Conversion Factor (ppm)	0.65

Sensor

Sensor	Level
Serial Number	787062
Last Calibrated	Factory Defaults

Sensor

Sensor	pH/ORP
Serial Number	21172
Last Calibrated	8/23/2022

Calibration Details

Total Calibration Points	3

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	116.5 mV
Temperature	25.41 °C

Calibration Point 2

pH of Buffer	7.00 pH
pH mV	-57.0 mV
Temperature	25.79 °C

Calibration Point 3

pH of Buffer	10.00 pH
pH mV	-219.0 mV
Temperature	25.98 °C

Slope and Offset 1

Slope	-57.82 mV/pH
Offset	-57.0 mV

Slope and Offset 2

Slope	-54.03 mV/pH
Offset	-57.0 mV

ORP

ORP Solution	ORP Standard
Offset	63.3 mV
Temperature	26.03 °C

Location Properties T1-1HT
Location Name = Device Location

Report Properties
Start Time = 2022-08-23 08:28:00
Time Offset = -04:00:00
Duration = 00:00:24
Readings = 13

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 893479

Instrument Properties
Device Model = PowerPack
Device SN = 890670

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	5.154381	73.49384	114.9708	37302.33	27.07101	35852.84	22.99003	23.30435	26.84091
########	5.154381	73.49384	114.9708	37302.33	27.07101	35852.84	22.99003	23.30435	26.84091
########	5.154381	73.49384	114.9708	37302.33	27.07101	35852.84	22.99003	23.30435	26.84091
########	4.605711	65.64915	102.7006	37256.63	27.04988	35781.96	22.93978	23.25828	26.88988
########	4.564614	65.06157	101.7815	37253.2	27.0483	35776.66	22.93602	23.25483	26.89355
########	4.523519	64.474	100.8625	37249.78	27.04672	35771.35	22.93225	23.25137	26.89722
########	4.482422	63.88642	99.94344	37246.36	27.04514	35766.04	22.92849	23.24792	26.90088
########	4.388475	61.93077	96.88403	37187.55	27.04699	35779.79	22.93813	23.25686	26.89662
########	4.366315	61.58604	96.3448	37183.38	27.04638	35778.1	22.93693	23.25576	26.89802
########	4.344155	61.24131	95.80557	37179.21	27.04578	35776.41	22.93573	23.25467	26.89942
########	4.242312	60.34759	94.41195	37192.15	27.03904	35795.42	22.94914	23.26702	26.88916
########	4.23252	60.22058	94.21349	37191.3	27.03864	35796.07	22.9496	23.26745	26.88894
########	4.222727	60.09358	94.01501	37190.44	27.03825	35796.73	22.95006	23.26788	26.88871

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.013688	-0.07168	0.471146	6.536074	-38.0081	244.48	1015.7	27.86	
1.013688	-0.07168	0.471146	6.536074	-38.0081	244.48	1015.7	27.86	
1.013688	-0.07168	0.471146	6.536074	-38.0081	244.48	1015.7	27.86	
1.013648	-0.06962	0.475897	6.572054	-39.9836	249.388	1015.71	27.86	
1.013645	-0.06946	0.476253	6.574749	-40.1316	249.7556	1015.71	27.86	
1.013642	-0.06931	0.476609	6.577444	-40.2796	250.1232	1015.711	27.86	
1.013639	-0.06916	0.476965	6.580139	-40.4276	250.4908	1015.712	27.86	
1.01365	-0.06765	0.480433	6.6057	-41.8303	250.595	1015.692	27.8688	
1.013649	-0.06752	0.480745	6.608037	-41.9586	250.7597	1015.692	27.86921	
1.013648	-0.06738	0.481058	6.610373	-42.0868	250.9244	1015.691	27.86961	
1.01366	-0.06498	0.486603	6.632581	-43.3059	251.0487	1015.716	27.88639	
1.013661	-0.06483	0.486946	6.634285	-43.3995	251.0873	1015.716	27.88731	
1.013662	-0.06468	0.487288	6.63599	-43.493	251.1259	1015.717	27.88822	

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EQUIPMENT CALIBRATION LOG

Field Technician: William Laaker	Date: 9/22/22	Time (Calibration): 5:50	Time (Mid-day Check):
AquaTroll SN: 789301	Turbidity Meter Type: LaMotte 2020	SN: 9453-4417	
Project: Sept. 2022 Surface Water	Weather Conditions: 96°/71° sunny		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air cal)				99.09	
Specific Conductance (µS/cm)	21470032 04/23	23.31	4490	~~4511~~ 4509	
pH (4)	21470032 04/23	23.29	4	4.01	
pH (7)	21380102 04/23	23.73	7	7.00	
pH (10)	20080056 04/23	23.97	10	10.01	
ORP (mV)	21140143 04/23	24.02	228	226.2	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU	0	0.00	+/-0.5 NTU	Yes	No	
Turbidity 1 NTU	1	0.91	+/- 0.5 NTU	Yes	No	
Turbidity 10 NTU	10	9.73	+/- 0.5 NTU	Yes	No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check		4		+/- 0.1 SU	Yes	No	
Mid-Day pH (7) check		7		+/- 0.1 SU	Yes	No	
Mid-Day pH (10) check		10		+/- 0.1 SU	Yes	No	

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EQUIPMENT CALIBRATION LOG

Field Technician: William Laaker	Date: 9/27/22	Time (Calibration): 13:05	Time (Mid-day Check):
AquaTroll SN: 789301	Turbidity Meter Type: LaMotte 2020	SN: 9453-4417	
Project: Sept. 2022 Surface Water	Weather Conditions: 85°/65° sunny		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air cal)				98.14	
Specific Conductance (µS/cm)	21470032 04/23	28.57	4490	44535	
pH (4)	21470032 04/23	28.75	4	3.92	
pH (7)	21380102 04/23	28.12	7	6.90	
pH (10)	20080056 04/23	28.01	10	9.88	
ORP (mV)	21140143 04/23	27.75	228	226.8	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU	0	0.00	+/-0.5 NTU	Yes	No	
Turbidity 1 NTU	1	0.98	+/- 0.5 NTU	Yes	No	
Turbidity 10 NTU	10	9.72	+/- 0.5 NTU	Yes	No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check		4		+/- 0.1 SU	Yes	No	
Mid-Day pH (7) check		7		+/- 0.1 SU	Yes	No	
Mid-Day pH (10) check		10		+/- 0.1 SU	Yes	No	

Calibration Report

Instrument	Aqua TROLL 400
Serial Number	789301
Created	9/22/2022

Sensor

Sensor	RDO
Serial Number	878603
Last Calibrated	9/22/2022

Calibration Details

Slope	1.032955
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.25 mg/L
Temperature	23.37 °C
Barometric Pressure	1,014.1 mbar

Sensor

Sensor	Conductivity
Serial Number	789301
Last Calibrated	9/22/2022

Calibration Details

Cell Constant	0.997
Reference Temperature	25.00 °C
TDS Conversion Factor (ppm)	0.65

Sensor

Sensor	Level
Serial Number	787061
Last Calibrated	Factory Defaults

Sensor

Sensor	pH/ORP
Serial Number	21177
Last Calibrated	9/22/2022

Calibration Details

Total Calibration Points	3

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	96.7 mV
Temperature	23.29 °C

Calibration Point 2

pH of Buffer	7.00 pH
pH mV	-77.4 mV
Temperature	23.73 °C

Calibration Point 3

pH of Buffer	10.00 pH
pH mV	-242.0 mV
Temperature	23.97 °C

Slope and Offset 1

Slope	-58.03 mV/pH
Offset	-77.4 mV

Slope and Offset 2

Slope	-54.88 mV/pH
Offset	-77.4 mV

ORP

ORP Solution	ORP Standard
Offset	82.2 mV
Temperature	24.02 °C

Calibration Report

Instrument	Aqua TROLL 400
Serial Number	789301
Created	9/27/2022

Sensor

Sensor	RDO
Serial Number	878603
Last Calibrated	9/27/2022

Calibration Details

Slope	1.051195
Offset	0.00 mg/L

Calibration point 100%

Concentration	7.31 mg/L
Temperature	29.25 °C
Barometric Pressure	1,017.3 mbar

Sensor

Sensor	Conductivity
Serial Number	789301
Last Calibrated	9/27/2022

Calibration Details

Cell Constant	1.003
Reference Temperature	25.00 °C
TDS Conversion Factor (ppm)	0.65

Sensor

Sensor	Level
Serial Number	787061
Last Calibrated	Factory Defaults

Sensor

Sensor	pH/ORP
Serial Number	21177
Last Calibrated	9/27/2022

Calibration Details

Total Calibration Points	3

Calibration Point 1

pH of Buffer	4.01 pH
pH mV	103.5 mV
Temperature	28.75 °C

Calibration Point 2

pH of Buffer	6.99 pH
pH mV	-73.5 mV
Temperature	28.12 °C

Calibration Point 3

pH of Buffer	9.95 pH
pH mV	-238.8 mV
Temperature	28.01 °C

Slope and Offset 1

Slope	-59.37 mV/pH
Offset	-74.1 mV

Slope and Offset 2

Slope	-55.84 mV/pH
Offset	-74.0 mV

ORP

ORP Solution	ORP Standard
Offset	83.3 mV
Temperature	27.85 °C

Location Properties BG-2HT
Location Name = Device Location

Report Properties
Start Time = 2022-09-22 08:23:41
Time Offset = -04:00:00
Duration = 00:00:18
Readings = 10

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	5.014091	72.81639	108.3021	39265.38	27.74743	37307.61	24.03334	24.24994	25.4679
########	5.004027	72.67829	108.0958	39277.79	27.74947	37318.02	24.0408	24.25672	25.45977
########	4.993963	72.5402	107.8896	39290.2	27.75151	37328.44	24.04826	24.26349	25.45164
########	4.983899	72.40211	107.6833	39302.61	27.75355	37338.86	24.05572	24.27026	25.44352
########	4.90472	71.23643	105.9473	39251.78	27.80049	37258.84	23.99899	24.21824	25.47656
########	4.898294	71.14491	105.8108	39252.46	27.80318	37257.66	23.99818	24.21748	25.47612
########	4.891868	71.05339	105.6742	39253.14	27.80587	37256.49	23.99737	24.21672	25.47567
########	4.826149	70.15262	104.3303	39399.96	27.8216	37385.16	24.08949	24.30036	25.3808
########	4.821659	70.08964	104.2363	39405.75	27.82317	37389.61	24.09268	24.30324	25.37705
########	4.817169	70.02666	104.1424	39411.55	27.82474	37394.05	24.09586	24.30613	25.37331

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.014254	-0.06555	0.485274	7.109405	-84.5577	98.53972	1015.227	24.85838	
1.014259	-0.06566	0.485037	7.109751	-84.5776	98.54918	1015.228	24.85893	
1.014264	-0.06576	0.484801	7.110098	-84.5976	98.55864	1015.229	24.85949	
1.014269	-0.06586	0.484565	7.110445	-84.6176	98.5681	1015.229	24.86004	
1.014211	-0.04556	0.53139	7.115657	-84.9138	98.71684	1015.22	24.85103	
1.01421	-0.04468	0.533422	7.115993	-84.9329	98.72631	1015.22	24.85082	
1.014209	-0.0438	0.535454	7.116328	-84.9521	98.73577	1015.22	24.85061	
1.014273	-0.04218	0.539194	7.120778	-85.204	98.8911	1015.212	24.86723	
1.014274	-0.04174	0.540192	7.121073	-85.2207	98.90078	1015.211	24.86781	
1.014276	-0.04131	0.541189	7.121368	-85.2375	98.91045	1015.211	24.86839	

Location Properties T1-4HT
Location Name = Device Location

Report Properties
Start Time = 2022-09-22 09:48:23
Time Offset = -04:00:00
Duration = 00:00:18
Readings = 10

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	2.693023	39.32501	58.26426	33870.71	29.57545	31148.6	19.69512	20.24659	29.52403
########	2.684791	39.13324	57.99527	33876.36	29.53508	31175.91	19.71401	20.26434	29.51911
########	2.683995	39.11782	57.97325	33876.45	29.53242	31177.44	19.71507	20.26534	29.51904
########	2.683199	39.10241	57.95123	33876.52	29.52977	31178.97	19.71612	20.26633	29.51897
########	2.682404	39.087	57.92921	33876.6	29.52711	31180.49	19.71718	20.26732	29.5189
########	2.678895	39.00798	57.82297	33848.95	29.40044	31224.6	19.74744	20.29599	29.54301
########	2.678572	39.00062	57.81285	33847.8	29.39386	31227.15	19.7492	20.29765	29.54402
########	2.67825	38.99325	57.80272	33846.64	29.38728	31229.69	19.75094	20.2993	29.54503
########	2.677927	38.98589	57.7926	33845.48	29.3807	31232.24	19.7527	20.30096	29.54604
########	2.676404	38.92418	57.70932	33849.53	29.30608	31277.12	19.78371	20.33013	29.54251

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.010438	-0.0642	0.488405	6.983061	-77.9766	98.28383	1015.54	27.71949	
1.010465	-0.06561	0.48514	6.980627	-77.8203	98.42057	1015.514	27.73641	
1.010467	-0.06587	0.484533	6.98048	-77.811	98.42822	1015.513	27.73735	
1.010468	-0.06614	0.483926	6.980332	-77.8016	98.43587	1015.512	27.7383	
1.01047	-0.0664	0.483319	6.980186	-77.7923	98.44351	1015.511	27.73924	
1.010533	-0.05497	0.509682	6.979393	-77.7161	98.43099	1015.579	27.7651	
1.010536	-0.05448	0.510826	6.979309	-77.7096	98.43308	1015.582	27.76661	
1.01054	-0.05398	0.511971	6.979226	-77.7031	98.43517	1015.585	27.76812	
1.010543	-0.05348	0.513116	6.979142	-77.6966	98.43726	1015.587	27.76963	
1.01059	-0.04571	0.531035	6.977899	-77.6089	98.5463	1015.553	27.77782	

Location Properties T1-4HTS
Location Name = Device Location

Report Properties
Start Time = 2022-09-22 09:43:21
Time Offset = -04:00:00
Duration = 00:00:18
Readings = 10

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	4.314582	64.73016	95.49058	34643.53	31.26336	30941.97	19.55567	20.11228	28.86544
########	4.295183	64.43226	95.05349	34651.71	31.25443	30953.96	19.56402	20.12008	28.8586
########	4.275784	64.13437	94.61641	34659.89	31.24551	30965.96	19.57236	20.12787	28.85176
########	4.256385	63.83648	94.17932	34668.07	31.23659	30977.94	19.58071	20.13566	28.84493
########	4.135727	61.94986	91.41837	34687.49	31.15822	31036.92	19.62173	20.174	28.82886
########	4.122612	61.74699	91.12102	34691.63	31.15118	31044.34	19.62689	20.17882	28.8254
########	4.109498	61.54411	90.82366	34695.78	31.14414	31051.76	19.63205	20.18365	28.82194
########	4.096383	61.34123	90.52631	34699.93	31.1371	31059.18	19.63722	20.18847	28.81848
########	3.987827	59.69517	88.10354	34684.72	31.10195	31064.28	19.64071	20.19178	28.83114
########	3.979466	59.56707	87.91539	34684.94	31.09833	31066.39	19.64217	20.19315	28.83096

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.009782	-0.0632	0.490694	7.042068	-81.7122	103.0825	1015.53	27.35	
1.009791	-0.06399	0.48887	7.04138	-81.6716	102.9969	1015.53	27.35	
1.0098	-0.06479	0.487046	7.040691	-81.6309	102.9113	1015.529	27.35	
1.009809	-0.06558	0.485222	7.040003	-81.5903	102.8257	1015.529	27.35	
1.009866	-0.05112	0.518562	7.033668	-81.235	102.5433	1015.538	27.37568	
1.009872	-0.0508	0.519293	7.033112	-81.203	102.4964	1015.539	27.3768	
1.009878	-0.05049	0.520024	7.032557	-81.171	102.4496	1015.539	27.37793	
1.009884	-0.05017	0.520756	7.032001	-81.139	102.4027	1015.539	27.37906	
1.009899	-0.05922	0.499891	7.025525	-80.7445	102.1199	1015.557	27.37042	
1.009901	-0.0594	0.499459	7.025073	-80.7177	102.0965	1015.558	27.37051	

Location Properties T2-1HT
Location Name = Device Location

Report Properties
Start Time = 2022-09-22 08:40:49
Time Offset = -04:00:00
Duration = 00:00:18
Readings = 10

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	4.900459	69.17257	102.8454	31292.56	27.97304	29619.28	18.67311	19.25253	259.4892
########	4.836341	68.42775	101.7408	31819.7	27.95763	30121.28	18.98993	19.57883	111.9663
########	4.772222	67.68294	100.6362	32346.85	27.94221	30623.29	19.30676	19.90514	0
########	4.433913	62.8088	93.39102	32114.31	27.93159	30411.48	19.17395	19.76746	31.13877
########	4.406031	62.41453	92.80465	32113.36	27.92725	30412.96	19.17495	19.76842	31.13969
########	4.378148	62.02025	92.21828	32112.41	27.92292	30414.44	19.17595	19.76939	31.14061
########	4.350265	61.62598	91.6319	32111.46	27.91858	30415.92	19.17695	19.77035	31.14153
########	4.119516	58.31261	86.71425	32072.13	27.89817	30389.9	19.15875	19.75343	31.17972
########	4.102582	58.07053	86.35477	32070.44	27.89696	30388.96	19.1581	19.75282	31.18137
########	4.085647	57.82845	85.9953	32068.75	27.89574	30388.03	19.15744	19.75222	31.18301

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.01018	-0.06797	0.479689	7.321848	-96.4173	88.63152	1015.23	24.93974	
1.01042	-0.06829	0.478969	7.320133	-96.3206	88.70763	1015.227	24.93991	
1.010661	-0.0686	0.47825	7.318417	-96.2239	88.78374	1015.224	24.94007	
1.010566	-0.05645	0.50627	7.299805	-95.1822	89.43439	1015.24	24.94834	
1.010568	-0.05607	0.507152	7.298538	-95.1115	89.48073	1015.239	24.9487	
1.01057	-0.05569	0.508034	7.297272	-95.0409	89.52706	1015.238	24.94906	
1.010572	-0.0553	0.508915	7.296005	-94.9702	89.57339	1015.238	24.94943	
1.010564	-0.05166	0.51732	7.279769	-94.0616	90.11501	1015.256	24.94964	
1.010564	-0.05128	0.518194	7.278687	-94.0011	90.15174	1015.257	24.9498	
1.010564	-0.0509	0.519068	7.277606	-93.9406	90.18847	1015.258	24.94996	

Location Properties T2-2HT
Location Name = Device Location

Report Properties
Start Time = 2022-09-22 08:50:02
Time Offset = -04:00:00
Duration = 00:00:18
Readings = 10

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	3.012727	43.02077	63.96915	34221.73	27.94018	32402.11	20.56301	21.06137	29.2212
########	2.999069	42.82737	63.6811	34221.6	27.94252	32400.62	20.56198	21.0604	29.22131
########	2.919243	41.69954	62.00449	34259.51	27.95571	32428.78	20.5818	21.0787	29.18898
########	2.91237	41.60225	61.85977	34261.31	27.95683	32429.82	20.58254	21.07938	29.18745
########	2.905498	41.50497	61.71504	34263.11	27.95796	32430.87	20.58328	21.08006	29.18591
########	2.898625	41.40769	61.57032	34264.91	27.95908	32431.91	20.58402	21.08074	29.18437
########	2.860163	40.87205	60.76889	34233.71	27.98176	32389.1	20.55418	21.05292	29.21097
########	2.856828	40.82527	60.69912	34233.04	27.98304	32387.71	20.55322	21.05201	29.21155
########	2.853494	40.7785	60.62936	34232.36	27.98431	32386.32	20.55225	21.05111	29.21213
########	2.827883	40.41917	60.0948	34233.53	28.0038	32376.03	20.54516	21.04442	29.21113

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.0116	0.003829	0.645314	6.997625	-78.3821	98.29912	1015.302	25.22917	
1.011599	0.004933	0.647861	6.997409	-78.3705	98.26865	1015.3	25.22956	
1.011609	-0.01725	0.596696	6.995605	-78.2761	97.91496	1015.334	25.23811	
1.011609	-0.01787	0.59526	6.995462	-78.2685	97.89046	1015.335	25.23865	
1.01161	-0.01849	0.593825	6.995318	-78.261	97.86597	1015.337	25.23919	
1.01161	-0.01912	0.592389	6.995175	-78.2534	97.84148	1015.338	25.23972	
1.011581	-0.04671	0.52874	6.994184	-78.1998	97.62658	1015.321	25.24829	
1.011579	-0.04832	0.525022	6.994105	-78.1955	97.61022	1015.321	25.24883	
1.011578	-0.04993	0.521304	6.994025	-78.1913	97.59386	1015.321	25.24937	
1.011567	-0.04313	0.536993	6.992393	-78.1089	97.40322	1015.346	25.25808	

Location Properties T2-2HTS
Location Name = Device Location

Report Properties
Start Time = 2022-09-22 08:44:43
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	5.508553	76.68767	114.2351	30864.25	27.06708	29691.96	18.71931	19.29977	173.9073
########	5.447143	76.0002	113.2099	31357.88	27.06938	30165.58	19.01789	19.60763	88.584
########	5.385733	75.31272	112.1847	31851.51	27.07168	30639.2	19.31646	19.91548	3.26066
########	4.862586	67.99625	101.2801	31758.69	27.14048	30511.31	19.23821	19.83236	31.4875
########	4.8187	67.38669	100.3712	31757.75	27.14507	30507.83	19.23582	19.83009	31.48841
########	4.774814	66.77713	99.46233	31756.81	27.14965	30504.35	19.23343	19.82783	31.48932
########	4.730927	66.16757	98.55348	31755.87	27.15423	30500.87	19.23104	19.82557	31.49023
########	4.450835	62.2241	92.68134	31658.2	27.15213	30408.25	19.16671	19.76537	31.58743
########	4.427866	61.90288	92.2028	31655.34	27.15342	30404.79	19.16431	19.76311	31.59028
########	4.404898	61.58166	91.72427	31652.49	27.15471	30401.32	19.16191	19.76086	31.59312
########	4.204552	58.7884	87.56178	31685.54	27.15393	30433.5	19.18425	19.78178	31.56015

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.010488	-0.02696	0.574298	7.072785	-82.3326	96.42971	1015.251	25.10876	
1.010711	-0.02741	0.573252	7.074155	-82.4094	96.27917	1015.25	25.10915	
1.010933	-0.02787	0.572205	7.075525	-82.4862	96.12862	1015.249	25.10953	
1.010854	-0.04362	0.53587	7.068301	-82.0947	96.65881	1015.267	25.11824	
1.010851	-0.04444	0.533975	7.067847	-82.0701	96.69486	1015.268	25.1188	
1.010848	-0.04526	0.532081	7.067393	-82.0455	96.73091	1015.268	25.11935	
1.010845	-0.04608	0.530187	7.066939	-82.0209	96.76696	1015.269	25.1199	
1.010797	-0.01373	0.604818	7.061886	-81.7401	97.04993	1015.278	25.11971	
1.010795	-0.01264	0.607315	7.061533	-81.7207	97.07174	1015.278	25.11988	
1.010793	-0.01156	0.609813	7.06118	-81.7013	97.09354	1015.279	25.12005	
1.01081	-0.02043	0.58936	7.056637	-81.4489	97.35205	1015.254	25.12	

Location Properties T2-3HT
Location Name = Device Location

Report Properties
Start Time = 2022-09-22 09:04:52
Time Offset = -04:00:00
Duration = 00:00:18
Readings = 10

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	3.285815	47.48842	70.50017	34473.85	28.68416	32207.49	20.43122	20.93487	29.0075
########	3.170094	45.77102	67.95893	34468.59	28.64172	32226.99	20.44464	20.94754	29.01192
########	3.16004	45.62458	67.74175	34468.24	28.6406	32227.3	20.44485	20.94775	29.01221
########	3.149985	45.47815	67.52457	34467.89	28.63948	32227.62	20.44506	20.94795	29.01251
########	3.055733	44.14649	65.54097	34507.93	28.67425	32245.04	20.45746	20.95927	28.97885
########	3.049137	44.05167	65.40005	34509.58	28.67497	32246.16	20.45825	20.96	28.97746
########	3.042541	43.95684	65.25914	34511.23	28.6757	32247.28	20.45905	20.96073	28.97608
########	3.035945	43.86201	65.11823	34512.88	28.67642	32248.41	20.45984	20.96146	28.97469
########	2.970995	42.86889	63.65714	34528.61	28.59799	32308.35	20.50139	21.00043	28.96149
########	2.966202	42.79769	63.55192	34530.04	28.59505	32311.38	20.5035	21.00239	28.96029

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.01127	-0.042	0.539593	6.976623	-77.4068	97.56483	1015.469	25.65012	
1.011293	-0.03705	0.551014	6.975573	-77.3408	97.20199	1015.442	25.64978	
1.011294	-0.03645	0.552412	6.975506	-77.3369	97.17865	1015.442	25.64995	
1.011294	-0.03584	0.553811	6.97544	-77.333	97.15532	1015.441	25.65011	
1.011292	-0.05268	0.514965	6.974943	-77.2853	96.73559	1015.424	25.67536	
1.011293	-0.05332	0.513498	6.9749	-77.2819	96.70995	1015.422	25.67647	
1.011293	-0.05395	0.512031	6.974857	-77.2786	96.68431	1015.421	25.67758	
1.011294	-0.05459	0.510565	6.974815	-77.2752	96.65868	1015.42	25.67868	
1.011349	-0.00729	0.619658	6.974354	-77.2462	96.29179	1015.42	25.67035	
1.011352	-0.00545	0.623903	6.974323	-77.2439	96.26727	1015.42	25.67043	

Location Properties T2-3HTS
Location Name = Device Location

Report Properties
Start Time = 2022-09-22 09:00:02
Time Offset = -04:00:00
Duration = 00:00:18
Readings = 10

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	4.412595	63.59805	94.35188	32535.48	29.00182	30225.22	19.04994	19.6464	30.73567
########	4.390782	63.28325	93.8848	32535.63	29.00124	30225.67	19.05025	19.64669	30.73553
########	4.252374	61.18729	90.79353	32512.03	28.95251	30229.89	19.05296	19.64943	30.75785
########	4.23736	60.96613	90.46623	32511.01	28.95006	30230.26	19.05321	19.64967	30.75881
########	4.222347	60.74496	90.13893	32510	28.94761	30230.63	19.05346	19.64991	30.75977
########	4.207334	60.5238	89.81164	32508.98	28.94516	30231	19.05371	19.65015	30.76073
########	4.091939	58.8555	87.34419	32584.54	28.8536	30350.64	19.13643	19.72792	30.68942
########	4.08256	58.71802	87.14094	32587.44	28.8485	30356.09	19.1402	19.73146	30.68668
########	4.07318	58.58054	86.93768	32590.35	28.8434	30361.54	19.14396	19.735	30.68394
########	3.998353	57.47873	85.30595	32547.54	28.82201	30333.21	19.12417	19.71659	30.7243

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.01014	-0.05032	0.520418	7.044108	-81.2345	98.41113	1015.478	25.5	
1.01014	-0.05127	0.518226	7.043558	-81.2029	98.28	1015.477	25.5	
1.010158	-0.02977	0.567809	7.038706	-80.9195	97.82686	1015.437	25.5	
1.010159	-0.02917	0.569195	7.038266	-80.894	97.75388	1015.434	25.5	
1.01016	-0.02857	0.570581	7.037825	-80.8684	97.68091	1015.432	25.5	
1.010161	-0.02797	0.571967	7.037385	-80.8429	97.60793	1015.429	25.5	
1.010251	-0.0435	0.536148	7.031732	-80.5115	97.22689	1015.439	25.50894	
1.010255	-0.04382	0.535402	7.031346	-80.4889	97.19207	1015.439	25.50934	
1.01026	-0.04414	0.534656	7.03096	-80.4663	97.15725	1015.439	25.50974	
1.010252	-0.03435	0.557261	7.026601	-80.2053	96.91045	1015.431	25.50967	

Location Properties T2-4HT
Location Name = Device Location

Report Properties
Start Time = 2022-09-22 09:35:12
Time Offset = -04:00:00
Duration = 00:00:18
Readings = 10

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	3.566074	53.00209	78.27784	33927.38	30.85939	30512.58	19.25565	19.83318	29.47476
########	3.540075	52.60994	77.69991	33922.43	30.85802	30508.85	19.25305	19.83075	29.47905
########	3.514076	52.21778	77.12196	33917.48	30.85665	30505.12	19.25045	19.82833	29.48333
########	3.271048	48.53195	71.70128	33948.27	30.65492	30639.06	19.34326	19.91539	29.45659
########	3.253169	48.26051	71.30191	33947.89	30.64503	30643.92	19.34663	19.91855	29.45692
########	3.235291	47.98906	70.90255	33947.5	30.63514	30648.79	19.34999	19.92171	29.45725
########	3.217412	47.71761	70.50319	33947.12	30.62525	30653.65	19.35336	19.92487	29.45758
########	3.073987	45.48132	67.22648	33856.25	30.47902	30648.89	19.34967	19.92178	29.53668
########	3.06276	45.3084	66.97269	33852.81	30.46875	30651.21	19.35126	19.92328	29.53967
########	3.051533	45.13548	66.71889	33849.38	30.45848	30653.53	19.35285	19.92479	29.54266

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.009693	-0.03376	0.558621	7.026767	-80.7537	96.75356	1015.398	26.98973	
1.009691	-0.03383	0.558442	7.026269	-80.7246	96.76664	1015.399	26.98989	
1.00969	-0.03391	0.558263	7.025771	-80.6955	96.77972	1015.4	26.99005	
1.009825	-0.07292	0.468281	7.02204	-80.4141	96.892	1015.4	27.00705	
1.009831	-0.07477	0.464019	7.021717	-80.3923	96.9009	1015.4	27.00781	
1.009837	-0.07662	0.459758	7.021394	-80.3705	96.9098	1015.4	27.00858	
1.009843	-0.07846	0.455496	7.02107	-80.3487	96.9187	1015.4	27.00935	
1.009888	-0.06308	0.490981	7.015386	-80.0242	97.08659	1015.443	27.01796	
1.009892	-0.06316	0.490792	7.01506	-80.0042	97.09622	1015.444	27.01867	
1.009897	-0.06324	0.490603	7.014734	-79.9843	97.10585	1015.446	27.01937	

Location Properties T2-4HTS
Location Name = Device Location

Report Properties
Start Time = 2022-09-22 09:29:10
Time Offset = -04:00:00
Duration = 00:00:18
Readings = 10

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	4.934051	73.64016	108.647	33546.2	31.4095	29898.86	18.87367	19.43426	18.02945
########	4.497957	67.12674	99.03609	33572.74	31.19705	30035.53	18.96909	19.52309	75.96484
########	4.452531	66.57166	98.22506	34126.19	31.16934	30533.96	19.28518	19.84707	43.67699
########	4.407105	66.01659	97.41404	34679.65	31.14163	31032.39	19.60127	20.17105	11.38913
########	4.19916	62.81457	92.6935	34427.57	31.11231	30828.54	19.47629	20.03855	29.0465
########	4.180788	62.53924	92.28767	34430.19	31.10652	30833.92	19.48002	20.04205	29.04429
########	4.162416	62.26391	91.88184	34432.81	31.10073	30839.29	19.48376	20.04554	29.04208
########	4.144044	61.98858	91.47601	34435.43	31.09495	30844.67	19.4875	20.04904	29.03987
########	4.017867	60.01647	88.58674	34430.02	31.05656	30860.12	19.4982	20.05908	29.04442
########	4.007831	59.86214	88.36011	34430.72	31.05396	30862.12	19.49958	20.06038	29.04383

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.009227	-0.05403	0.511848	7.065283	-83.0111	93.05272	1015.411	26.53946	
1.009369	-0.06644	0.483217	7.054486	-82.4006	93.17705	1015.428	26.5486	
1.009612	-0.06684	0.482316	7.053938	-82.3682	93.17551	1015.428	26.54915	
1.009856	-0.06723	0.481414	7.05339	-82.3358	93.17397	1015.429	26.54971	
1.009773	-0.0374	0.550224	7.046587	-81.9428	93.15982	1015.42	26.55811	
1.009778	-0.03633	0.552679	7.046125	-81.9161	93.15834	1015.42	26.55865	
1.009782	-0.03527	0.555134	7.045663	-81.8894	93.15686	1015.42	26.55919	
1.009787	-0.0342	0.557588	7.045201	-81.8627	93.15538	1015.42	26.55973	
1.009808	-0.04014	0.54389	7.039466	-81.5274	93.19537	1015.42	26.56836	
1.00981	-0.03987	0.544513	7.039077	-81.5047	93.19688	1015.42	26.56891	

Location Properties T3-4HT
Location Name = Device Location

Report Properties
Start Time = 2022-09-22 09:21:31
Time Offset = -04:00:00
Duration = 00:00:18
Readings = 10

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	3.916856	56.66277	84.11301	34661.96	28.72659	32358.73	20.53741	21.03318	28.84991
########	3.587476	51.937	77.09052	34727.77	28.76423	32398.41	20.56546	21.05897	28.79543
########	3.561177	51.55923	76.5294	34732.5	28.76698	32401.24	20.56745	21.06081	28.7915
########	3.534877	51.18145	75.96827	34737.23	28.76973	32404.07	20.56945	21.06264	28.78757
########	3.290868	47.6381	70.71069	34767.13	28.75882	32438.27	20.59336	21.08488	28.76282
########	3.273259	47.38347	70.33271	34769.85	28.75898	32440.72	20.59509	21.08647	28.76056
########	3.25565	47.12885	69.95473	34772.57	28.75914	32443.17	20.59681	21.08806	28.7583
########	3.238041	46.87423	69.57674	34775.3	28.75929	32445.63	20.59853	21.08966	28.75604
########	3.071109	44.43905	65.96519	34705.65	28.73479	32394.78	20.56274	21.0566	28.81377
########	3.058714	44.25856	65.69746	34703.09	28.73348	32393.15	20.56159	21.05555	28.81589

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.011336	-0.03264	0.56119	6.990026	-78.1703	91.05012	1015.428	26.29994	
1.011345	-0.05364	0.512746	6.987873	-78.0467	91.10892	1015.419	26.29951	
1.011345	-0.0543	0.511227	6.987716	-78.0383	91.11407	1015.42	26.29985	
1.011346	-0.05496	0.509709	6.98756	-78.0298	91.11924	1015.421	26.30019	
1.011367	-0.05609	0.50711	6.9862	-77.9505	91.2355	1015.395	26.3085	
1.011368	-0.05648	0.506197	6.986096	-77.9446	91.24206	1015.393	26.30889	
1.01137	-0.05688	0.505284	6.985993	-77.9386	91.24861	1015.392	26.30929	
1.011371	-0.05727	0.504371	6.98589	-77.9326	91.25517	1015.391	26.30968	
1.011352	-0.07681	0.45931	6.983835	-77.815	91.33852	1015.408	26.30972	
1.011351	-0.07771	0.457233	6.983715	-77.8081	91.34457	1015.408	26.30988	

Location Properties T3-4HTS
Location Name = Device Location

Report Properties
Start Time = 2022-09-22 09:17:29
Time Offset = -04:00:00
Duration = 00:00:18
Readings = 10

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	4.808892	69.86639	103.4081	30830.69	29.95408	28169.79	17.64163	18.31037	58075.4
########	4.763237	69.31746	102.6042	31344.78	29.92724	28640.68	17.93657	18.61644	0
########	4.482571	65.01876	96.26661	31040.5	29.86633	28400.77	17.79027	18.4605	32.21598
########	4.460733	64.69306	95.78639	31041.46	29.86135	28404.11	17.79256	18.46267	32.21498
########	4.438894	64.36736	95.30618	31042.41	29.85637	28407.45	17.79485	18.46484	32.21399
########	4.417056	64.04166	94.82597	31043.37	29.85139	28410.79	17.79714	18.46701	32.213
########	4.220464	61.16689	90.58678	31145.21	29.71641	28571.47	17.90759	18.57146	32.10773
########	4.206041	60.95387	90.27275	31150.41	29.70885	28580	17.91345	18.577	32.10234
########	4.191618	60.74086	89.95872	31155.62	29.7013	28588.53	17.91932	18.58254	32.09696
########	4.060499	58.77847	87.05927	31023.06	29.65743	28488.79	17.85039	18.51771	32.23417

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.008788	-0.07745	0.457822	7.132617	-86.4399	81.65682	1015.455	26.0481	
1.009016	-0.07841	0.45562	7.131444	-86.3668	81.74549	1015.456	26.049	
1.008927	-0.10867	0.385808	7.118281	-85.6122	82.66949	1015.398	26.04077	
1.00893	-0.11025	0.382168	7.117382	-85.5604	82.7325	1015.397	26.04071	
1.008934	-0.11183	0.378527	7.116481	-85.5087	82.7955	1015.395	26.04065	
1.008937	-0.11341	0.374887	7.115581	-85.4569	82.85851	1015.393	26.04059	
1.009062	-0.07085	0.473063	7.104186	-84.7905	83.66853	1015.444	26.04906	
1.009069	-0.06946	0.476258	7.10342	-84.7459	83.7229	1015.446	26.0493	
1.009076	-0.06808	0.479452	7.102653	-84.7013	83.77726	1015.447	26.04955	
1.009039	-0.00914	0.615395	7.092171	-84.0974	84.47182	1015.422	26.05812	

Location Properties T4-1HB
Location Name = Device Location

Report Properties
Start Time = 2022-09-22 07:19:42
Time Offset = -04:00:00
Duration = 00:00:18
Readings = 10

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	2.089197	29.34175	43.75791	35773.65	26.37704	34856.87	22.27725	22.65697	27.95355
########	2.088014	29.32574	43.73396	35775.51	26.37887	34857.49	22.27771	22.65737	27.95209
########	2.086831	29.30974	43.71001	35777.37	26.3807	34858.11	22.27817	22.65777	27.95064
########	2.085647	29.29373	43.68606	35779.23	26.38254	34858.73	22.27863	22.65818	27.94918
########	2.07195	29.11407	43.41478	35746.65	26.38812	34823.38	22.2537	22.63519	27.97465
########	2.070975	29.10114	43.39534	35746.17	26.38858	34822.61	22.25316	22.6347	27.97503
########	2.07	29.08821	43.37589	35745.68	26.38903	34821.84	22.25262	22.6342	27.97541
########	2.062259	28.97512	43.20785	35722.34	26.41648	34781.35	22.22429	22.60788	27.99369
########	2.061634	28.96639	43.1948	35720.62	26.41788	34778.77	22.22248	22.6062	27.99504
########	2.06101	28.95766	43.18174	35718.89	26.41927	34776.18	22.22067	22.60452	27.99639

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.013357	-0.03755	0.549857	6.847608	-69.6674	168.8192	1014.888	24.18964	
1.013357	-0.03723	0.550607	6.847646	-69.6698	168.7534	1014.889	24.1898	
1.013357	-0.0369	0.551356	6.847684	-69.6722	168.6876	1014.889	24.18997	
1.013356	-0.03658	0.552106	6.847723	-69.6746	168.6217	1014.889	24.19013	
1.013336	-0.04302	0.53726	6.848094	-69.7013	167.5739	1014.881	24.19878	
1.013335	-0.04342	0.536335	6.848121	-69.7031	167.5062	1014.88	24.19918	
1.013335	-0.04382	0.535409	6.848147	-69.7049	167.4386	1014.88	24.19958	
1.013306	-0.05392	0.512097	6.848313	-69.7215	166.4119	1014.897	24.19966	
1.013304	-0.0545	0.510759	6.848328	-69.7228	166.3442	1014.898	24.19984	
1.013302	-0.05508	0.509422	6.848343	-69.7241	166.2764	1014.898	24.20001	

Location Properties T4-1HS
Location Name = Device Location

Report Properties
Start Time = 2022-09-22 07:11:53
Time Offset = -04:00:00
Duration = 00:00:18
Readings = 10

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	3.839882	52.51189	78.56156	35172.04	24.7371	35349.53	22.60477	22.97719	28.43168
########	3.651535	50.02979	74.83358	35162.99	24.77763	35312.98	22.57951	22.95344	28.43899
########	3.639232	49.86621	74.58807	35162.13	24.78024	35310.34	22.57768	22.95172	28.43969
########	3.62693	49.70264	74.34255	35161.26	24.78284	35307.71	22.57586	22.95001	28.4404
########	3.614628	49.53906	74.09704	35160.39	24.78545	35305.07	22.57403	22.94829	28.4411
########	3.448074	47.27383	70.70314	35159.88	24.90154	35226.15	22.5199	22.897	28.44151
########	3.436866	47.12294	70.47689	35159.66	24.90751	35221.9	22.51698	22.89423	28.44168
########	3.425658	46.97205	70.25063	35159.45	24.91349	35217.65	22.51406	22.89147	28.44185
########	3.282603	45.02955	67.34003	35124.23	24.95294	35155.85	22.47093	22.8513	28.47038
########	3.273011	44.89928	67.14484	35122.66	24.95688	35151.62	22.46799	22.84855	28.47165

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.014081	-0.03335	0.559567	6.550745	-52.9466	236.2366	1014.821	23.79983	
1.014051	0.006366	0.651167	6.562526	-53.6087	235.8851	1014.846	23.81703	
1.014049	0.008144	0.655268	6.563324	-53.6534	235.8659	1014.847	23.81795	
1.014047	0.009922	0.659369	6.564123	-53.6981	235.8466	1014.848	23.81888	
1.014045	0.0117	0.66347	6.564921	-53.7428	235.8274	1014.849	23.81981	
1.013971	-0.06519	0.486103	6.576167	-54.3769	235.3833	1014.84	23.8284	
1.013967	-0.06783	0.480027	6.576904	-54.4184	235.3569	1014.84	23.82911	
1.013963	-0.07046	0.473952	6.577642	-54.4599	235.3305	1014.84	23.82983	
1.013919	-0.04407	0.534836	6.588412	-55.064	234.8214	1014.832	23.83816	
1.013916	-0.04431	0.534266	6.589108	-55.1032	234.7904	1014.831	23.8387	

Location Properties T4-2HB
Location Name = Device Location

Report Properties
Start Time = 2022-09-22 07:35:12
Time Offset = -04:00:00
Duration = 00:00:18
Readings = 10

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	2.800129	39.3196	58.65243	36072.71	26.28287	35209.97	22.526	22.88648	27.72179
########	2.796416	39.26853	58.57608	36074.96	26.28363	35211.67	22.52721	22.88758	27.72005
########	2.758945	38.76724	57.82095	35998.07	26.35734	35088.43	22.44081	22.80748	27.77928
########	2.756189	38.72985	57.76482	35995.09	26.3607	35083.31	22.43723	22.80416	27.78158
########	2.753433	38.69247	57.7087	35992.11	26.36406	35078.2	22.43365	22.80083	27.78387
########	2.73164	38.42372	57.30053	36064.73	26.40931	35119.4	22.4633	22.82761	27.72794
########	2.7299	38.40148	57.26688	36066.65	26.41278	35118.99	22.46305	22.82735	27.72646
########	2.72816	38.37924	57.23323	36068.57	26.41626	35118.59	22.4628	22.82708	27.72498
########	2.72642	38.35699	57.19958	36070.49	26.41973	35118.18	22.46255	22.82682	27.7235
########	2.705786	38.10182	56.81262	36072.2	26.45221	35098.66	22.44909	22.81413	27.72218

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.013571	-0.04738	0.527195	6.98973	-77.5117	122.5925	1014.95	24.34933	
1.013572	-0.04602	0.530334	6.989488	-77.4985	122.5686	1014.95	24.34971	
1.013485	-0.05571	0.507981	6.985679	-77.3166	122.1102	1014.959	24.34096	
1.013482	-0.05537	0.508763	6.985433	-77.3043	122.0818	1014.959	24.34072	
1.013478	-0.05503	0.509546	6.985188	-77.2921	122.0534	1014.959	24.34049	
1.013487	-0.05262	0.515115	6.981571	-77.1008	121.6334	1014.925	24.34033	
1.013485	-0.05268	0.514968	6.981331	-77.0885	121.6053	1014.924	24.34016	
1.013484	-0.05274	0.514821	6.981091	-77.0761	121.5771	1014.922	24.33999	
1.013483	-0.05281	0.514675	6.98085	-77.0638	121.549	1014.921	24.33982	
1.013463	-0.03371	0.558721	6.978326	-76.9301	121.0506	1014.929	24.35725	

Location Properties T4-2HS
Location Name = Device Location

Report Properties
Start Time = 2022-09-22 07:29:05
Time Offset = -04:00:00
Duration = 00:00:18
Readings = 10

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	3.930597	55.24804	82.39688	35944.31	26.39475	35011.61	22.38687	22.75755	27.82084
########	3.92227	55.13254	82.22449	35946.92	26.39639	35013.08	22.38793	22.7585	27.81881
########	3.913942	55.01704	82.05209	35949.53	26.39804	35014.55	22.38899	22.75946	27.81679
########	3.785498	53.22001	79.36685	35909.61	26.4168	34963.46	22.35306	22.72625	27.84771
########	3.777282	53.10551	79.19585	35909.25	26.41805	34962.31	22.35226	22.7255	27.84798
########	3.769067	52.99102	79.02484	35908.9	26.41929	34961.16	22.35146	22.72475	27.84825
########	3.656755	51.41552	76.67497	35865.5	26.43855	34906.4	22.31294	22.68916	27.88197
########	3.649235	51.31009	76.51762	35862.68	26.43978	34902.86	22.31045	22.68686	27.88415
########	3.641714	51.20466	76.36028	35859.86	26.44101	34899.31	22.30795	22.68455	27.88634
########	3.634193	51.09923	76.20293	35857.04	26.44225	34895.77	22.30546	22.68225	27.88853

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.013434	0.022071	0.687392	6.960722	-75.938	144.6682	1014.974	24.28872	
1.013434	0.022775	0.689017	6.960625	-75.933	144.6791	1014.975	24.28907	
1.013434	0.023479	0.690641	6.960526	-75.928	144.69	1014.976	24.28943	
1.013402	0.009824	0.659143	6.959287	-75.8594	144.5825	1014.952	24.28094	
1.013401	0.00998	0.659503	6.959201	-75.8548	144.5786	1014.951	24.2807	
1.0134	0.010136	0.659863	6.959116	-75.8502	144.5748	1014.951	24.28045	
1.013365	-0.04159	0.540547	6.958148	-75.8055	144.3397	1014.984	24.29711	
1.013363	-0.04426	0.534391	6.958081	-75.8022	144.3271	1014.985	24.29769	
1.013361	-0.04693	0.528235	6.958014	-75.7988	144.3145	1014.986	24.29828	
1.013359	-0.0496	0.52208	6.957946	-75.7955	144.3019	1014.987	24.29887	

Location Properties T4-3HB
Location Name = Device Location

Report Properties
Start Time = 2022-09-22 07:49:28
Time Offset = -04:00:00
Duration = 00:00:18
Readings = 10

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	2.726359	38.65081	57.58637	36136.35	26.9384	34846.23	22.27551	22.65005	27.67297
########	2.702573	38.34186	57.11996	36217.24	26.96488	34907.2	22.31889	22.68968	27.61118
########	2.700875	38.31915	57.08582	36219.59	26.9671	34908.04	22.31951	22.69022	27.60939
########	2.699177	38.29645	57.05169	36221.94	26.96932	34908.87	22.32012	22.69077	27.60759
########	2.697479	38.27374	57.01754	36224.29	26.97154	34909.71	22.32073	22.69131	27.6058
########	2.677866	38.01225	56.62453	36194.95	26.99153	34868.61	22.29185	22.6646	27.62817
########	2.676522	37.99448	56.59778	36195.19	26.99295	34867.93	22.29139	22.66415	27.62798
########	2.675178	37.97671	56.57103	36195.43	26.99437	34867.25	22.29092	22.66371	27.6278
########	2.673834	37.95893	56.54428	36195.68	26.99579	34866.57	22.29045	22.66327	27.62761
########	2.657134	37.72665	56.19446	36144.17	27.03615	34791.14	22.23749	22.61424	27.66699

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.013187	-0.04568	0.531108	6.97193	-76.6996	109.186	1015.118	24.42005	
1.013211	-0.04828	0.525124	6.970452	-76.6231	109.0584	1015.067	24.42849	
1.013211	-0.04846	0.524696	6.97035	-76.618	109.0499	1015.065	24.42887	
1.013211	-0.04865	0.524267	6.970247	-76.6128	109.0414	1015.064	24.42926	
1.013211	-0.04883	0.523838	6.970145	-76.6076	109.0329	1015.063	24.42965	
1.013183	-0.04882	0.523863	6.968955	-76.5455	108.9126	1015.079	24.42968	
1.013182	-0.04888	0.523745	6.968873	-76.5412	108.9048	1015.078	24.42985	
1.013181	-0.04893	0.523627	6.968791	-76.537	108.8969	1015.078	24.43002	
1.013181	-0.04898	0.523509	6.968709	-76.5327	108.8891	1015.078	24.43018	
1.013129	-0.04386	0.535309	6.967138	-76.4562	108.7604	1015.062	24.43	

Location Properties T4-3HS
Location Name = Device Location

Report Properties
Start Time = 2022-09-22 07:43:49
Time Offset = -04:00:00
Duration = 00:00:18
Readings = 10

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	4.631177	65.1198	97.10365	35636.27	26.50666	34639.44	22.12497	22.51563	28.06131
########	4.613324	64.87321	96.73542	35643.6	26.50911	34644.99	22.12892	22.51925	28.05551
########	4.595471	64.62662	96.3672	35650.93	26.51155	34650.55	22.13287	22.52286	28.04972
########	4.438326	62.42178	93.07565	35601.55	26.51095	34602.94	22.09924	22.49191	28.08867
########	4.424029	62.22272	92.77846	35602.2	26.51189	34602.96	22.09926	22.49192	28.08816
########	4.409732	62.02368	92.48126	35602.84	26.51283	34602.98	22.09929	22.49194	28.08765
########	4.395434	61.82463	92.18407	35603.48	26.51378	34603	22.09931	22.49195	28.08714
########	4.247554	59.74989	89.08588	35570.22	26.54768	34548.94	22.06149	22.45681	28.11341
########	4.236732	59.59832	88.85954	35568.23	26.54932	34545.95	22.05939	22.45487	28.11498
########	4.225911	59.44674	88.63321	35566.24	26.55096	34542.96	22.0573	22.45293	28.11655

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.013204	-0.05127	0.518219	7.019355	-79.21	115.8	1015.04	24.32018	
1.013206	-0.04902	0.523412	7.019126	-79.1974	115.8246	1015.04	24.31958	
1.013209	-0.04677	0.528606	7.018898	-79.1849	115.8492	1015.04	24.31898	
1.013184	-0.09466	0.418126	7.017194	-79.0947	115.7255	1015.031	24.33756	
1.013183	-0.09597	0.415117	7.017025	-79.0855	115.7296	1015.031	24.33818	
1.013183	-0.09727	0.412107	7.016856	-79.0764	115.7337	1015.03	24.33879	
1.013183	-0.09858	0.409098	7.016687	-79.0673	115.7378	1015.03	24.33941	
1.013144	-0.08064	0.450476	7.014791	-78.9679	115.6399	1015.012	24.32202	
1.013142	-0.08066	0.450421	7.014658	-78.9609	115.6347	1015.011	24.32159	
1.01314	-0.08069	0.450367	7.014526	-78.9539	115.6295	1015.01	24.32116	

Location Properties T4-4HB
Location Name = Device Location

Report Properties
Start Time = 2022-09-22 08:07:48
Time Offset = -04:00:00
Duration = 00:00:18
Readings = 10

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	4.548446	65.73203	97.71119	37119.11	28.00809	35102.31	22.46625	22.8165	26.94028
########	4.237306	61.23452	91.02556	37065.93	28.02906	35038.76	22.4214	22.7752	26.97896
########	4.213572	60.89217	90.51659	37065.5	28.03002	35037.76	22.4207	22.77454	26.97927
########	4.189838	60.5498	90.00763	37065.08	28.03097	35036.75	22.41999	22.77389	26.97958
########	3.989283	57.67844	85.73724	37186.74	28.03069	35151.93	22.5016	22.84875	26.89136
########	3.974216	57.46188	85.41522	37191.19	28.03106	35155.9	22.50442	22.85133	26.88813
########	3.959148	57.24532	85.09321	37195.64	28.03144	35159.87	22.50723	22.85391	26.8849
########	3.94408	57.02876	84.7712	37200.09	28.03182	35163.83	22.51005	22.85649	26.88168
########	3.821747	55.28489	82.17231	37186.64	28.07182	35125.75	22.48337	22.83174	26.89139
########	3.812305	55.15002	81.97149	37188.23	28.07364	35126.1	22.48363	22.83196	26.89024

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.013001	-0.05795	0.502808	7.065817	-82.1934	98.16884	1015.18	24.71023	
1.012961	-0.06253	0.492245	7.063597	-82.0739	98.51836	1015.215	24.71	
1.01296	-0.0629	0.491391	7.063422	-82.0644	98.54173	1015.216	24.71	
1.012959	-0.06327	0.490536	7.063247	-82.0548	98.56511	1015.218	24.71	
1.01302	0.059094	0.772793	7.06137	-81.9611	98.85397	1015.193	24.71839	
1.013022	0.06443	0.785102	7.061243	-81.9545	98.87364	1015.193	24.71876	
1.013024	0.069767	0.797411	7.061115	-81.948	98.89331	1015.192	24.71913	
1.013026	0.075103	0.80972	7.060988	-81.9415	98.91298	1015.192	24.71951	
1.012994	-0.07088	0.472995	7.059825	-81.8757	99.19434	1015.191	24.71966	
1.012993	-0.07525	0.462905	7.059736	-81.8709	99.21258	1015.19	24.71982	

Location Properties T4-4HS
Location Name = Device Location

Report Properties
Start Time = 2022-09-22 08:00:57
Time Offset = -04:00:00
Duration = 00:00:18
Readings = 10

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	4.630388	67.61343	100.3527	37159.17	28.73492	34684.86	22.17589	22.54515	26.91126
########	4.476393	65.34661	96.99216	37189.74	28.7056	34731.54	22.20874	22.5755	26.88914
########	4.466335	65.19856	96.77267	37191.73	28.70369	34734.59	22.21089	22.57749	26.8877
########	4.456277	65.05051	96.55318	37193.73	28.70177	34737.64	22.21304	22.57947	26.88625
########	4.44622	64.90246	96.3337	37195.73	28.69986	34740.69	22.21518	22.58145	26.88481
########	4.378353	63.86362	94.80473	37213.86	28.66659	34778.28	22.24157	22.60588	26.87171
########	4.371302	63.75804	94.6487	37215.46	28.66433	34781.18	22.24361	22.60777	26.87055
########	4.364252	63.65247	94.49268	37217.07	28.66207	34784.09	22.24565	22.60966	26.86939
########	4.357201	63.54689	94.33667	37218.68	28.65981	34786.99	22.24769	22.61154	26.86823
########	4.296789	62.62413	92.97218	37169.63	28.59936	34778.67	22.24139	22.60614	26.90369

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.012555	-0.06548	0.485434	7.030744	-80.4245	111.1339	1015.29	24.55	
1.012589	-0.09263	0.42281	7.028333	-80.2793	110.5613	1015.262	24.55	
1.012591	-0.09441	0.41872	7.028175	-80.2698	110.5239	1015.26	24.55	
1.012594	-0.09618	0.41463	7.028018	-80.2603	110.4865	1015.258	24.55	
1.012596	-0.09795	0.41054	7.027861	-80.2508	110.4491	1015.257	24.55	
1.012626	-0.07488	0.46376	7.026937	-80.1955	110.1618	1015.269	24.55857	
1.012628	-0.07455	0.46453	7.026834	-80.1892	110.134	1015.269	24.55896	
1.01263	-0.07421	0.465299	7.02673	-80.183	110.1062	1015.269	24.55934	
1.012633	-0.07388	0.466069	7.026625	-80.1767	110.0784	1015.269	24.55973	
1.012647	-0.06474	0.487158	7.026165	-80.1298	109.7914	1015.235	24.55973	

Location Properties T4-4L
Location Name = Device Location

Report Properties
Start Time = 2022-09-27 17:35:48
Time Offset = -04:00:00
Duration = 00:00:18
Readings = 10

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	6.791981	100.8287	146.8341	36940.04	30.0727	33677.12	21.47096	21.89013	27.07095
########	6.793422	100.8492	146.8644	36944.15	30.07006	33682.42	21.47469	21.89357	27.06793
########	6.794863	100.8698	146.8948	36948.27	30.06742	33687.72	21.47842	21.89702	27.0649
########	6.828688	101.302	147.5414	36962.22	30.05157	33709.74	21.49389	21.91133	27.05468
########	6.830612	101.3276	147.5795	36965.3	30.05038	33713.25	21.49636	21.91361	27.05241
########	6.832536	101.3531	147.6176	36968.38	30.0492	33716.75	21.49882	21.91589	27.05015
########	6.83446	101.3787	147.6558	36971.47	30.04801	33720.26	21.50129	21.91817	27.04788
########	6.854484	101.6294	148.0305	36904.07	29.99774	33688.29	21.47853	21.89739	27.09729
########	6.856062	101.6493	148.0603	36901.3	29.99517	33687.27	21.47779	21.89672	27.09933
########	6.85764	101.6692	148.0901	36898.54	29.99261	33686.25	21.47706	21.89606	27.10135

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.011599	-0.04545	0.531637	7.115935	-81.0344	234.8952	1016.987	30.77969	
1.011603	-0.04547	0.531608	7.116732	-81.0787	234.8243	1016.985	30.77986	
1.011606	-0.04548	0.531579	7.11753	-81.123	234.7534	1016.983	30.78003	
1.011623	-0.02596	0.576607	7.129471	-81.7856	233.6792	1016.982	30.78	
1.011625	-0.02495	0.578932	7.130249	-81.8289	233.6093	1016.981	30.78	
1.011627	-0.02394	0.581258	7.131027	-81.8721	233.5394	1016.98	30.78	
1.01163	-0.02293	0.583583	7.131805	-81.9154	233.4695	1016.979	30.78	
1.011629	-0.00454	0.626019	7.142786	-82.5209	232.4696	1016.997	30.78853	
1.01163	-0.00332	0.628823	7.143516	-82.5612	232.4033	1016.997	30.78891	
1.01163	-0.0021	0.631628	7.144247	-82.6016	232.3371	1016.998	30.78929	

Location Properties BG-1LT
Location Name = Device Location

Report Properties
Start Time = 2022-09-28 07:48:22
Time Offset = -04:00:00
Duration = 00:00:18
Readings = 10

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	4.846069	62.85397	93.22719	34213.14	21.52393	36646.29	23.4603	23.82009	29.22854
########	4.833436	62.71263	93.0145	34213.79	21.53542	36638.33	23.45495	23.81491	29.22798
########	4.820803	62.57129	92.8018	34214.44	21.54691	36630.37	23.4496	23.80974	29.22743
########	4.703361	61.24258	90.80173	34380.56	21.92578	36525.43	23.38426	23.74153	29.08632
########	4.694145	61.13967	90.6467	34388.52	21.94622	36518.67	23.37996	23.73713	29.07957
########	4.684929	61.03676	90.49167	34396.47	21.96667	36511.91	23.37567	23.73274	29.07281
########	4.675714	60.93385	90.33664	34404.43	21.98711	36505.15	23.37137	23.72835	29.06605
########	4.589792	59.93928	88.83957	34309.23	22.15853	36278.38	23.21472	23.58095	29.14671
########	4.583611	59.86847	88.73297	34308.46	22.17345	36266.55	23.20669	23.57326	29.14736
########	4.57743	59.79765	88.62637	34307.7	22.18838	36254.73	23.19866	23.56557	29.148

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.015601	-0.0512	0.518374	5.836219	-8.86145	138.6279	1018.398	19.31799	
1.015594	-0.05135	0.518029	5.840035	-9.07017	138.6457	1018.399	19.31887	
1.015587	-0.0515	0.517684	5.84385	-9.27889	138.6635	1018.4	19.31975	
1.015439	-0.04163	0.540458	5.891808	-11.9164	138.7831	1018.391	19.3453	
1.01543	-0.04125	0.541328	5.895152	-12.1	138.7938	1018.391	19.34664	
1.015422	-0.04088	0.542197	5.898495	-12.2836	138.8046	1018.39	19.34799	
1.015413	-0.0405	0.543067	5.901839	-12.4672	138.8153	1018.39	19.34933	
1.01525	-0.06387	0.489162	5.945986	-14.8907	138.7855	1018.407	19.37441	
1.01524	-0.06467	0.487306	5.948872	-15.0492	138.7868	1018.407	19.37599	
1.01523	-0.06548	0.485451	5.951758	-15.2077	138.7882	1018.408	19.37757	

Location Properties T1-4LT
Location Name = Device Location

Report Properties
Start Time = 2022-09-28 07:59:29
Time Offset = -04:00:00
Duration = 00:00:18
Readings = 10

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	6.972258	92.4078	136.7198	33633.1	23.33856	34732.31	22.16413	22.576	74739.81
########	6.951404	92.37425	136.6663	34186.11	23.34858	35303.34	22.52787	22.94717	0
########	6.932509	92.06187	136.1881	33767.76	23.37935	34846.44	22.22775	22.65018	29.61433
########	6.930899	92.04155	136.1572	33756.48	23.38106	34833.61	22.21874	22.64185	29.62411
########	6.929289	92.02123	136.1263	33745.21	23.38278	34820.79	22.20973	22.63351	29.63389
########	6.927679	92.00092	136.0954	33733.93	23.3845	34807.97	22.20071	22.62518	29.64367
########	6.912446	91.90071	135.9392	33888.23	23.4628	34913.29	22.27632	22.69364	29.50885
########	6.911175	91.88982	135.9224	33892.84	23.46695	34915.18	22.27773	22.69487	29.50482
########	6.909905	91.87893	135.9056	33897.45	23.4711	34917.09	22.27914	22.69611	29.50079
########	6.91025	91.89815	135.9206	33793.84	23.50924	34784.29	22.1862	22.60979	29.59124

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.01414	-0.04908	0.523264	6.650852	-53.6863	118.8627	1018.61	20.16897	
1.014412	-0.04898	0.523499	6.65174	-53.7383	118.8959	1018.61	20.16951	
1.014177	-0.04454	0.533749	6.665268	-54.4878	119.1921	1018.61	20.16964	
1.01417	-0.0442	0.534537	6.666139	-54.5361	119.2134	1018.61	20.1698	
1.014163	-0.04385	0.535325	6.66701	-54.5844	119.2348	1018.61	20.16995	
1.014155	-0.04351	0.536113	6.667881	-54.6328	119.2561	1018.61	20.17011	
1.014191	-0.04979	0.521632	6.68011	-55.3193	119.4602	1018.618	20.17864	
1.014191	-0.04998	0.521199	6.68092	-55.3646	119.4753	1018.619	20.17902	
1.014191	-0.05017	0.520766	6.68173	-55.4099	119.4903	1018.619	20.1794	
1.01411	-0.03813	0.548526	6.694252	-56.1027	119.6404	1018.586	20.18794	

Location Properties T2-4LT
Location Name = Device Location

Report Properties
Start Time = 2022-09-28 08:07:09
Time Offset = -04:00:00
Duration = 00:00:18
Readings = 10

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	5.591003	74.15443	109.701	33464.92	23.43037	34499.21	21.98408	22.42448	29.88206
########	5.580324	74.01266	109.491	33464.16	23.43035	34498.44	21.98354	22.42399	29.88273
########	5.569644	73.8709	109.2811	33463.4	23.43032	34497.67	21.983	22.42349	29.88341
########	5.558965	73.72913	109.0711	33462.64	23.4303	34496.91	21.98246	22.42299	29.88408
########	5.400288	71.67248	106.0225	33463.42	23.4545	34481.28	21.97188	22.41283	29.88338
########	5.390138	71.53976	105.8257	33462.28	23.45562	34479.34	21.97053	22.41157	29.8844
########	5.379987	71.40704	105.629	33461.13	23.45674	34477.4	21.96919	22.41031	29.88542
########	5.369836	71.27433	105.4322	33459.99	23.45786	34475.46	21.96784	22.40905	29.88644
########	5.216704	69.26571	102.4634	33505.9	23.49275	34499.07	21.98505	22.4244	29.8455
########	5.206697	69.13491	102.2699	33507.98	23.49477	34499.84	21.98562	22.4249	29.84364

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.01398	-0.05438	0.511052	7.054446	-75.8902	113.7178	1018.661	20.3176	
1.013979	-0.05376	0.512472	7.054547	-75.896	113.7184	1018.659	20.31831	
1.013979	-0.05315	0.513892	7.054647	-75.9018	113.719	1018.657	20.31902	
1.013978	-0.05253	0.515311	7.054748	-75.9075	113.7196	1018.654	20.31973	
1.013964	-0.05583	0.507713	7.055459	-75.9513	113.6961	1018.67	20.31105	
1.013963	-0.05579	0.507803	7.055522	-75.9551	113.695	1018.669	20.31082	
1.013961	-0.05575	0.507893	7.055585	-75.9589	113.6938	1018.669	20.31059	
1.01396	-0.05571	0.507983	7.055648	-75.9627	113.6926	1018.668	20.31036	
1.013963	-0.0565	0.506163	7.05683	-76.0352	113.653	1018.722	20.32774	
1.013963	-0.05659	0.505945	7.056897	-76.0393	113.6508	1018.724	20.32835	

Location Properties T3-4LT
Location Name = Device Location

Report Properties
Start Time = 2022-09-28 08:14:02
Time Offset = -04:00:00
Duration = 00:00:18
Readings = 10

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	5.163816	68.49979	101.3271	33412.7	23.42883	34446.41	21.9469	22.39017	29.92874
########	5.153924	68.37019	101.135	33410.99	23.42983	34443.98	21.9452	22.38858	29.93027
########	5.027138	66.72388	98.6935	33466.61	23.46984	34474.16	21.96712	22.4082	29.88054
########	5.018328	66.60913	98.52341	33468.56	23.47184	34474.8	21.96761	22.40862	29.87879
########	5.009517	66.49437	98.35332	33470.51	23.47385	34475.45	21.9681	22.40904	29.87705
########	4.892922	64.95627	96.07812	33455.8	23.48971	34449.55	21.95015	22.39221	29.89019
########	4.885253	64.85561	95.92909	33456.13	23.49116	34448.91	21.94972	22.39179	29.88989
########	4.877585	64.75494	95.78007	33456.46	23.49261	34448.27	21.94929	22.39138	29.88959
########	4.869917	64.65429	95.63105	33456.8	23.49406	34447.63	21.94887	22.39096	29.88929
########	4.750738	63.09277	93.31362	33441.86	23.51669	34416.94	21.92765	22.37101	29.90264

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.013952	-0.0611	0.49554	7.165581	-81.9991	99.5844	1018.608	20.52949	
1.01395	-0.06117	0.495379	7.165525	-81.9963	99.6133	1018.609	20.52989	
1.013956	-0.06406	0.488722	7.164731	-81.9631	100.0126	1018.583	20.52979	
1.013956	-0.06427	0.488226	7.164681	-81.961	100.0391	1018.582	20.52996	
1.013956	-0.06449	0.487731	7.164632	-81.9588	100.0656	1018.581	20.53013	
1.013938	-0.06248	0.492364	7.163778	-81.9181	100.4061	1018.606	20.53	
1.013937	-0.06244	0.492444	7.163724	-81.9156	100.429	1018.607	20.53	
1.013936	-0.06241	0.492524	7.163671	-81.9131	100.4519	1018.607	20.53	
1.013936	-0.06238	0.492605	7.163618	-81.9107	100.4748	1018.608	20.53	
1.013914	-0.05338	0.513352	7.163222	-81.8889	100.7834	1018.565	20.53	

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EQUIPMENT CALIBRATION LOG

Field Technician: William Laaker	Date: 12/1/22	Time (Calibration): 8:25	Time (Mid-day Check): 14:57
AquaTroll SN: 789310	Turbidity Meter Type: LaMotte 2020	SN: 9453-4417	
Project: Dec 2022 Sampling	Weather Conditions: 62°/44° sunny		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air cal)				102.56	
Specific Conductance (µS/cm)	21470032 04/23	9.42	4490	3874.9	
pH (4)	21470032 04/23	9.59	4	4.03	
pH (7)	21380102 04/23	10.48	7	7.15	
pH (10)	20080056 04/23	11.18	10	10.29	
ORP (mV)	21140143 04/23	10.99	228	233.1	

		Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU		0	0.01	+/-0.5 NTU	Yes	No	
Turbidity 1 NTU		1	0.84	+/- 0.5 NTU	Yes	No	
Turbidity 10 NTU		10	9.86	+/- 0.5 NTU	Yes	No	

		Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check		16.90	4	4.08	+/- 0.1 SU	Yes	No	
Mid-Day pH (7) check		16.63	7	7.10	+/- 0.1 SU	Yes	No	
Mid-Day pH (10) check		16.95	10	10.25	+/- 0.1 SU	Yes	No	

Calibration Report

Instrument	Aqua TROLL 400
Serial Number	789310
Created	12/1/2022

Sensor

Sensor	RDO
Serial Number	878616
Last Calibrated	12/1/2022

Calibration Details

Slope	0.9879361
Offset	0.00 mg/L

Calibration point 100%

Concentration	11.89 mg/L
Temperature	9.04 °C
Barometric Pressure	1,030.8 mbar

Sensor

Sensor	Conductivity
Serial Number	789310
Last Calibrated	12/1/2022

Calibration Details

Cell Constant	0.992
Reference Temperature	20.00 °C
TDS Conversion Factor (ppm)	0.65

Sensor

Sensor	Level
Serial Number	787063
Last Calibrated	Factory Defaults

Sensor

Sensor	pH/ORP
Serial Number	21174
Last Calibrated	12/1/2022

Calibration Details

Total Calibration Points	3

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	96.9 mV
Temperature	9.59 °C

Calibration Point 2

pH of Buffer	7.06 pH
pH mV	-70.8 mV
Temperature	10.48 °C

Calibration Point 3

pH of Buffer	10.14 pH
pH mV	-232.6 mV
Temperature	11.19 °C

Slope and Offset 1

Slope	-54.79 mV/pH
Offset	-67.5 mV

Slope and Offset 2

Slope	-52.54 mV/pH
Offset	-67.6 mV

ORP

ORP Solution	ORP Standard
Offset	52.0 mV
Temperature	10.99 °C

Location Properties T1-1HT
Location Name = Device Location

Report Properties
Start Time = 2022-12-01 14:41:06
Time Offset = -05:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789310

Instrument Properties
Device Model = PowerPack
Device SN = 784034

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	7.592727	94.3515	151.2706	35990.8	19.22848	36529.11	26.09652	23.74392	27.78488
########	7.593369	94.35524	151.2772	35990.04	19.22451	36531.13	26.09821	23.74524	27.78547
########	7.59401	94.35898	151.2838	35989.26	19.22054	36533.16	26.0999	23.74655	27.78607
########	7.605653	94.51053	151.5314	36039.54	19.21029	36591.47	26.14632	23.78446	27.74731
########	7.606335	94.5182	151.5441	36041.36	19.20828	36594.73	26.14896	23.78658	27.74591
########	7.607017	94.52586	151.5567	36043.17	19.20627	36598	26.15159	23.7887	27.74451
########	7.612274	94.47854	151.5004	36035.41	19.18098	36608.08	26.16014	23.79525	27.75049
########	7.612726	94.47906	151.5022	36035.92	19.1796	36609.58	26.16136	23.79623	27.75009
########	7.613177	94.47958	151.504	36036.44	19.17822	36611.08	26.16258	23.7972	27.74969
########	7.613629	94.4801	151.5059	36036.95	19.17684	36612.59	26.1638	23.79818	27.74929
########	7.61361	94.48901	151.5206	36035.27	19.13692	36639.26	26.18584	23.81552	27.75059

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.018177	-0.22117	0.126308	5.611862	5.796972	157.5925	1030.47	20.88138	
1.018179	-0.22141	0.125774	5.61145	5.685845	157.5709	1030.47	20.88065	
1.018182	-0.22164	0.125241	5.611039	5.574719	157.5494	1030.47	20.87993	
1.018219	-0.21845	0.132603	5.636591	4.209542	157.2085	1030.487	20.86308	
1.018222	-0.21843	0.132637	5.637283	4.115529	157.1868	1030.488	20.86216	
1.018224	-0.21842	0.13267	5.637975	4.021516	157.1652	1030.488	20.86124	
1.018237	-0.22416	0.119431	5.680831	1.722255	156.7337	1030.531	20.85245	
1.018238	-0.22437	0.118948	5.683238	1.591879	156.7078	1030.533	20.85175	
1.018239	-0.22457	0.118466	5.685646	1.461503	156.6819	1030.535	20.85104	
1.018241	-0.22478	0.117984	5.688053	1.331127	156.6559	1030.537	20.85034	
1.018267	-0.20589	0.161554	5.721827	-0.49757	156.3884	1030.538	20.84178	

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EQUIPMENT CALIBRATION LOG

Field Technician: William Laaker	Date: 12/20/22	Time (Calibration): 5:45	Time (Mid-day Check):
AquaTroll SN: 789301	Turbidity Meter Type: LaMotte 2020	SN: 7042-3818	
Project: Dec 2022 Surface Water	Weather Conditions: 59°/51° rain		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air cal)				103.98	
Specific Conductance (µS/cm)	21470032 04/23	10.47	4490	4524.7	
pH (4)	21470032 04/23	10.55	4	4.04	
pH (7)	21380102 04/23	10.77	7	7.14	
pH (10)	20080056 04/23	10.89	10	10.24	
ORP (mV)	21140143 04/23	10.88	228	228.1	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU	0	0.01	+/-0.5 NTU	Yes	No	
Turbidity 1 NTU	1	1.18	+/- 0.5 NTU	Yes	No	
Turbidity 10 NTU	10	9.80	+/- 0.5 NTU	Yes	No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check		4		+/- 0.1 SU	Yes	No	
Mid-Day pH (7) check		7		+/- 0.1 SU	Yes	No	
Mid-Day pH (10) check		10		+/- 0.1 SU	Yes	No	

Calibration Report

Instrument	Aqua TROLL 400
Serial Number	789301
Created	12/20/2022

Sensor	**RDO**
Serial Number	878603
Last Calibrated	12/20/2022

Calibration Details

Slope	1.042314
Offset	0.00 mg/L

Calibration point 100%

Concentration	10.92 mg/L
Temperature	10.26 °C
Barometric Pressure	1,028.1 mbar

Sensor	**Conductivity**
Serial Number	789301
Last Calibrated	12/20/2022

Calibration Details

Cell Constant	1.13
Reference Temperature	20.00 °C
TDS Conversion Factor (ppm)	0.65

Sensor	**Level**
Serial Number	787061
Last Calibrated	Factory Defaults

Sensor	**pH/ORP**
Serial Number	21177
Last Calibrated	12/20/2022

Calibration Details

Total Calibration Points	3

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	76.2 mV
Temperature	10.55 °C

Calibration Point 2

pH of Buffer	7.06 pH
pH mV	-93.1 mV
Temperature	10.77 °C

Calibration Point 3

pH of Buffer	10.14 pH
pH mV	-252.5 mV
Temperature	10.89 °C

Slope and Offset 1

Slope	-55.32 mV/pH
Offset	-89.8 mV

Slope and Offset 2

Slope	-51.77 mV/pH
Offset	-90.0 mV

ORP

ORP Solution	ORP Standard
Offset	71.5 mV
Temperature	10.88 °C

Location Properties T1-1HT
Location Name = Device Location

Report Properties
Start Time = 2022-12-20 07:51:27
Time Offset = -05:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	8.221761	92.10469	140.704	36757.97	12.21243	43180.79	31.53222	28.06752	27.20499
########	8.219218	92.07533	140.6592	36756.15	12.21241	43178.67	31.53049	28.06614	27.20633
########	8.216675	92.04596	140.6145	36754.33	12.21239	43176.55	31.52877	28.06476	27.20768
########	8.188657	91.76146	140.1763	36784.05	12.22307	43201.11	31.54869	28.08072	27.1857
########	8.186681	91.74013	140.1436	36784.4	12.22354	43201.07	31.54866	28.08069	27.18544
########	8.184704	91.71879	140.1109	36784.75	12.22401	43201.02	31.54862	28.08066	27.18518
########	8.182728	91.69746	140.0783	36785.1	12.22448	43200.98	31.54858	28.08064	27.18492
########	8.159908	91.47021	139.7325	36821.85	12.23121	43237.61	31.57831	28.10444	27.15779
########	8.158302	91.45399	139.7078	36823.94	12.23171	43239.58	31.57992	28.10573	27.15625
########	8.156697	91.43777	139.683	36826.04	12.23221	43241.56	31.58152	28.10701	27.1547
########	8.140204	91.22976	139.3604	36745.56	12.23768	43141.77	31.50051	28.04215	27.21419

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.023859	-0.06095	0.495887	7.559844	-119.574	86.13451	1027.738	12.10975	
1.023857	-0.06045	0.497038	7.559922	-119.578	86.16199	1027.738	12.10991	
1.023856	-0.05995	0.49819	7.559999	-119.583	86.18948	1027.739	12.11006	
1.02387	-0.06371	0.489524	7.560566	-119.618	86.56452	1027.722	12.11	
1.023869	-0.06369	0.489564	7.56062	-119.621	86.59032	1027.721	12.11	
1.023869	-0.06368	0.489603	7.560674	-119.625	86.61611	1027.721	12.11	
1.023869	-0.06366	0.489642	7.560728	-119.628	86.64191	1027.721	12.11	
1.023891	-0.08272	0.445673	7.561689	-119.68	87.00282	1027.737	12.11865	
1.023892	-0.08361	0.44363	7.561745	-119.683	87.02663	1027.738	12.11903	
1.023893	-0.08449	0.441588	7.5618	-119.686	87.05044	1027.738	12.11941	
1.023829	-0.06821	0.479138	7.562669	-119.734	87.37173	1027.714	12.11959	

Location Properties T1-2HT
Location Name = Device Location

Report Properties
Start Time = 2022-12-20 08:01:48
Time Offset = -05:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	7.546166	86.72131	132.3663	39199.19	12.84432	45404.84	33.344	29.51314	25.51074
########	7.535288	86.60738	132.1919	39202.73	12.84876	45404.47	33.34369	29.51291	25.50843
########	7.524411	86.49343	132.0174	39206.27	12.85321	45404.11	33.34338	29.51267	25.50612
########	7.419534	85.3022	130.1885	39154.19	12.93189	45265.06	33.22932	29.42229	25.54006
########	7.411674	85.21641	130.0569	39152.71	12.9369	45258.33	33.2238	29.41792	25.54102
########	7.403814	85.13062	129.9252	39151.24	12.94191	45251.6	33.21828	29.41354	25.54198
########	7.300854	84.0668	128.2946	39227.94	13.00737	45274.81	33.23703	29.42863	25.49205
########	7.294167	83.99578	128.1857	39230.57	13.0118	45273.43	33.23588	29.42773	25.49034
########	7.287478	83.92477	128.0768	39233.2	13.01622	45272.04	33.23473	29.42683	25.48863
########	7.280791	83.85376	127.9679	39235.82	13.02064	45270.66	33.23359	29.42593	25.48692
########	7.206857	83.09631	126.8018	39246.15	13.04527	45258.01	33.22313	29.41771	25.48021

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (mV	ORP (mV)	Barometri	Temperatu	Marked
1.025142	-0.07763	0.457418	7.548974	-119.291	86.47002	1027.506	12.17906	
1.025141	-0.07777	0.457091	7.548903	-119.289	86.4928	1027.507	12.17946	
1.02514	-0.07791	0.456763	7.548832	-119.286	86.51556	1027.509	12.17986	
1.025036	-0.07832	0.455833	7.548074	-119.291	86.82922	1027.465	12.17109	
1.02503	-0.07829	0.455904	7.548018	-119.291	86.85023	1027.464	12.17088	
1.025025	-0.07825	0.455976	7.547963	-119.29	86.87125	1027.463	12.17068	
1.025027	-0.07158	0.471366	7.547431	-119.273	87.14732	1027.47	12.17885	
1.025025	-0.07129	0.472042	7.547392	-119.273	87.16572	1027.47	12.17908	
1.025023	-0.071	0.472718	7.547353	-119.272	87.18411	1027.469	12.1793	
1.025022	-0.0707	0.473393	7.547315	-119.271	87.20251	1027.469	12.17952	
1.025009	-0.0684	0.478716	7.547068	-119.271	87.47727	1027.443	12.171	

Location Properties T1-2HTS
Location Name = Device Location

Report Properties
Start Time = 2022-12-20 07:56:25
Time Offset = -05:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	8.747651	98.10844	149.8419	36741.88	12.29662	43070.49	31.54253	27.99582	278.6884
########	8.704507	98.02278	149.7097	37380.47	12.3043	43817.7	32.08982	28.4815	126.1896
########	8.661362	97.93712	149.5775	38019.06	12.31199	44564.91	32.6371	28.96719	0
########	8.49619	95.95551	146.5466	37792.65	12.32581	44283.63	32.42918	28.78436	26.46019
########	8.483662	95.81541	146.3322	37790.57	12.32745	44279.57	32.42587	28.78172	26.46163
########	8.471133	95.67531	146.1179	37788.5	12.32908	44275.51	32.42256	28.77908	26.46308
########	8.458605	95.53521	145.9035	37786.42	12.33072	44271.45	32.41925	28.77644	26.46453
########	8.358096	94.38645	144.1437	37722.97	12.34324	44184.73	32.34856	28.72008	26.50906
########	8.350164	94.29671	144.0063	37720.14	12.34408	44180.59	32.34518	28.71738	26.51105
########	8.342234	94.20698	143.8689	37717.32	12.34492	44176.45	32.3418	28.71469	26.51303
########	8.334302	94.11724	143.7316	37714.49	12.34576	44172.3	32.33842	28.712	26.51501

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.023852	-0.06499	0.486582	7.567797	-120.03	86.70358	1027.584	12.15	
1.024274	-0.06519	0.486115	7.567778	-120.033	86.73561	1027.583	12.15	
1.024696	-0.06539	0.485648	7.567758	-120.036	86.76765	1027.582	12.15	
1.024533	-0.07883	0.45465	7.568428	-120.069	87.19173	1027.564	12.15	
1.02453	-0.07962	0.452836	7.568464	-120.071	87.21977	1027.563	12.15	
1.024527	-0.0804	0.451023	7.5685	-120.073	87.24781	1027.561	12.15	
1.024524	-0.08119	0.449209	7.568536	-120.075	87.27585	1027.56	12.15	
1.024467	-0.07289	0.468354	7.56872	-120.092	87.6318	1027.535	12.15	
1.024464	-0.07279	0.468589	7.568742	-120.094	87.65616	1027.533	12.15	
1.024461	-0.07268	0.468824	7.568764	-120.095	87.68051	1027.531	12.15	
1.024459	-0.07258	0.469058	7.568785	-120.097	87.70486	1027.53	12.15	

Location Properties T1-3HT
Location Name = Device Location

Report Properties
Start Time = 2022-12-20 08:17:17
Time Offset = -05:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	7.113561	82.04784	125.2536	39283.79	13.11751	45229.48	33.1995	29.39917	25.4558
########	7.106313	81.96778	125.1311	39283.01	13.12185	45224.27	33.19521	29.39577	25.4563
########	7.099066	81.88772	125.0085	39282.23	13.12619	45219.05	33.19092	29.39238	25.4568
########	7.047255	81.32716	124.15	39340.97	13.13442	45278.45	33.23949	29.43099	25.4188
########	7.042963	81.27982	124.0775	39343.13	13.13635	45279.02	33.23995	29.43136	25.4174
########	7.038671	81.23248	124.0051	39345.29	13.13828	45279.59	33.24041	29.43173	25.41601
########	7.03438	81.18513	123.9326	39347.46	13.14021	45280.16	33.24086	29.4321	25.41461
########	6.962854	80.46575	122.8253	39364.48	13.17211	45268	33.23077	29.4242	25.40362
########	6.958624	80.42237	122.7586	39366.33	13.17372	45268.52	33.23119	29.42454	25.40242
########	6.954393	80.379	122.6919	39368.18	13.17534	45269.04	33.23161	29.42488	25.40123
########	6.950162	80.33562	122.6253	39370.02	13.17695	45269.57	33.23203	29.42522	25.40003

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.024976	-0.05636	0.506484	7.533452	-118.581	88.5703	1027.907	12.32967	
1.024972	-0.05551	0.508435	7.533375	-118.578	88.58049	1027.908	12.33004	
1.024968	-0.05467	0.510386	7.533298	-118.575	88.59068	1027.909	12.3304	
1.025004	-0.05328	0.513574	7.532783	-118.562	88.73701	1027.892	12.33	
1.025004	-0.05262	0.515103	7.532734	-118.56	88.74638	1027.892	12.33	
1.025003	-0.05196	0.516633	7.532686	-118.559	88.75575	1027.891	12.33	
1.025003	-0.0513	0.518162	7.532638	-118.557	88.76512	1027.891	12.33	
1.024989	-0.06034	0.497293	7.532115	-118.544	88.8909	1027.882	12.33	
1.024989	-0.06072	0.496433	7.532081	-118.543	88.89934	1027.881	12.33	
1.024989	-0.06109	0.495574	7.532047	-118.542	88.90777	1027.88	12.33	
1.024989	-0.06146	0.494714	7.532013	-118.541	88.91621	1027.88	12.33	

Location Properties T1-3HTS
Location Name = Device Location

Report Properties
Start Time = 2022-12-20 08:12:35
Time Offset = -05:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	8.566224	98.06674	149.7047	38451.98	12.92673	44454.31	32.63244	28.8953	226.8681
########	8.523359	97.92038	149.4801	39020.66	12.9386	45103.6	33.10812	29.31734	58.62241
########	8.216475	94.56924	144.351	39117.1	12.97383	45180.52	33.16002	29.36734	25.56431
########	8.194599	94.32361	143.9751	39112.9	12.9805	45168.93	33.15051	29.35981	25.56704
########	8.172723	94.07798	143.5991	39108.7	12.98717	45157.35	33.14101	29.35228	25.56977
########	8.150846	93.83235	143.2231	39104.5	12.99383	45145.76	33.1315	29.34475	25.57249
########	8.00201	92.02986	140.4786	38993.21	13.03089	44980.6	32.9963	29.23739	25.64552
########	7.989013	91.87886	140.2481	38988.09	13.03309	44972.5	32.98967	29.23212	25.64888
########	7.976016	91.72785	140.0177	38982.97	13.0353	44964.4	32.98304	29.22686	25.65224
########	7.878917	90.6328	138.3472	39000.59	13.04697	44973.16	32.99015	29.23256	25.64065
########	7.87131	90.54477	138.2129	38999.22	13.04826	44970.3	32.98781	29.2307	25.64154

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.024576	-0.05912	0.50012	7.54336	-119.036	81.31134	1027.71	12.25092	
1.024941	-0.05846	0.50163	7.545537	-119.152	81.16701	1027.71	12.25073	
1.024974	-0.07518	0.463068	7.544726	-119.127	81.7402	1027.683	12.25036	
1.024965	-0.07571	0.461837	7.544643	-119.124	81.77882	1027.682	12.25022	
1.024956	-0.07625	0.460607	7.54456	-119.121	81.81744	1027.68	12.25007	
1.024948	-0.07678	0.459377	7.544477	-119.117	81.85606	1027.679	12.24993	
1.024836	-0.07309	0.467891	7.544112	-119.103	82.3286	1027.724	12.25886	
1.02483	-0.07331	0.467372	7.544068	-119.101	82.36254	1027.726	12.25925	
1.024825	-0.07354	0.466853	7.544025	-119.099	82.39648	1027.727	12.25963	
1.024828	-0.056	0.507306	7.543301	-119.069	82.81281	1027.745	12.25966	
1.024826	-0.0552	0.509148	7.543261	-119.067	82.8409	1027.746	12.25983	

Location Properties T3-1HT
Location Name = Device Location

Report Properties
Start Time = 2022-12-20 07:08:11
Time Offset = -05:00:00
Duration = 00:00:18
Readings = 10

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	7.925611	88.28224	134.9799	37221.53	11.7086	44225.3	32.38146	28.74645	26.86616
########	7.921393	88.23582	134.9082	37215.37	11.71117	44215.39	32.37339	28.74001	26.87059
########	7.862292	87.66597	134.0295	37170.13	11.74543	44127.38	32.30177	28.6828	26.90335
########	7.857997	87.62228	133.962	37165.68	11.74797	44119.54	32.29539	28.6777	26.90656
########	7.853702	87.57858	133.8946	37161.22	11.75051	44111.7	32.28901	28.67261	26.90977
########	7.849407	87.53488	133.8272	37156.77	11.75305	44103.86	32.28263	28.66751	26.91299
########	7.792222	87.01843	133.0317	37306.3	11.83067	44203.55	32.36392	28.73231	26.80517
########	7.7883	86.98183	132.9753	37311.75	11.83494	44205.74	32.36571	28.73373	26.80125
########	7.784377	86.94522	132.9188	37317.2	11.83921	44207.93	32.3675	28.73516	26.79732
########	7.745291	86.48618	132.2199	37223.1	11.86233	44073.42	32.25798	28.64772	26.86507

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.024611	-0.11	0.382749	6.800027	-79.9114	208.7307	1028.138	12.01912	
1.024604	-0.10876	0.385601	6.801308	-79.9787	209.1586	1028.135	12.01794	
1.024542	-0.07488	0.463768	6.815801	-80.7399	209.3036	1028.141	12.03766	
1.024537	-0.07288	0.468365	6.816952	-80.8004	209.48	1028.14	12.03807	
1.024531	-0.07089	0.472962	6.818103	-80.8608	209.6564	1028.139	12.03847	
1.024526	-0.0689	0.47756	6.819254	-80.9213	209.8328	1028.138	12.03887	
1.024575	-0.06489	0.486794	6.834442	-81.7289	210.1618	1028.131	12.03948	
1.024575	-0.064	0.48885	6.835471	-81.7834	210.2054	1028.13	12.03981	
1.024576	-0.06311	0.490906	6.8365	-81.8379	210.249	1028.13	12.04013	
1.024487	-0.07273	0.468726	6.851361	-82.6162	210.5807	1028.173	12.04	

Location Properties T3-2HT
Location Name = Device Location

Report Properties
Start Time = 2022-12-20 07:18:49
Time Offset = -05:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	7.504777	85.21571	130.215	38754.1	12.33262	45403.26	33.34361	29.51212	25.80375
########	7.49137	85.07014	129.9921	38759.36	12.33707	45404.91	33.34496	29.51319	25.80024
########	7.477962	84.92459	129.7692	38764.62	12.34152	45406.55	33.3463	29.51426	25.79672
########	7.324351	83.35774	127.3588	38751.62	12.3871	45345.09	33.29597	29.4743	25.80538
########	7.313748	83.24723	127.1891	38753.11	12.38985	45344.05	33.29512	29.47363	25.80438
########	7.303146	83.13671	127.0194	38754.61	12.39259	45343.02	33.29428	29.47296	25.80338
########	7.292544	83.0262	126.8496	38756.1	12.39533	45341.99	33.29343	29.47229	25.80239
########	7.176921	81.73247	124.8719	38745.43	12.51559	45208.09	33.18374	29.38526	25.80949
########	7.168672	81.64314	124.735	38744.84	12.52179	45201.13	33.17804	29.38074	25.80989
########	7.160421	81.55382	124.5982	38744.25	12.52798	45194.17	33.17234	29.37621	25.81028
########	7.075302	80.67749	123.2548	38835.52	12.56955	45258.7	33.22506	29.41816	25.74965

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.025241	-0.07385	0.466138	7.300544	-106.147	159.9198	1028.122	12.07019	
1.025241	-0.07431	0.465085	7.300819	-106.163	159.8712	1028.122	12.07003	
1.025241	-0.07476	0.464031	7.301095	-106.179	159.8226	1028.121	12.06986	
1.025193	-0.06318	0.490745	7.304821	-106.398	159.0647	1028.103	12.07862	
1.025192	-0.06274	0.491758	7.305075	-106.413	159.0169	1028.102	12.079	
1.025191	-0.0623	0.49277	7.305329	-106.428	158.9691	1028.101	12.07939	
1.02519	-0.06186	0.493782	7.305583	-106.443	158.9212	1028.099	12.07977	
1.025082	-0.05649	0.506191	7.309306	-106.67	158.2008	1028.135	12.08851	
1.025076	-0.05604	0.507221	7.309545	-106.684	158.1539	1028.136	12.08906	
1.02507	-0.05559	0.508252	7.309784	-106.699	158.1071	1028.138	12.0896	
1.025103	-0.05863	0.501245	7.314265	-106.945	157.4648	1028.138	12.08112	

Location Properties T3-2HTS
Location Name = Device Location

Report Properties
Start Time = 2022-12-20 07:12:35
Time Offset = -05:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	7.529408	84.84463	129.6468	37571.06	12.29808	44051.3	32.23991	28.63334	26.61623
########	7.524675	84.79326	129.5682	37570.75	12.2997	44049.34	32.23832	28.63207	26.61645
########	7.519943	84.74188	129.4897	37570.45	12.30132	44047.38	32.23672	28.6308	26.61666
########	7.487342	84.35198	128.888	37515.61	12.30199	43982.43	32.18383	28.58858	26.65558
########	7.483965	84.31368	128.8292	37512.98	12.30267	43978.68	32.18077	28.58614	26.65745
########	7.480588	84.27538	128.7704	37510.34	12.30334	43974.93	32.17772	28.5837	26.65932
########	7.477212	84.23707	128.7115	37507.71	12.30402	43971.17	32.17466	28.58126	26.66119
########	7.430978	83.75586	127.9796	37569.83	12.31304	44035.11	32.22671	28.62282	26.61711
########	7.427977	83.72349	127.9301	37571.48	12.31356	44036.53	32.22787	28.62374	26.61594
########	7.424976	83.69112	127.8807	37573.14	12.31407	44037.96	32.22903	28.62467	26.61477
########	7.421975	83.65874	127.8313	37574.79	12.31459	44039.39	32.23019	28.6256	26.61359

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.024391	-0.08681	0.436241	7.132682	-97.3788	199.8482	1028.079	12.00984	
1.02439	-0.08714	0.435469	7.132896	-97.3901	200.298	1028.08	12.01045	
1.024388	-0.08748	0.434697	7.133111	-97.4013	200.7477	1028.082	12.01106	
1.024347	-0.06606	0.484107	7.137157	-97.6119	200.372	1028.036	12.00115	
1.024344	-0.06521	0.486062	7.137428	-97.626	200.5338	1028.035	12.00094	
1.024342	-0.06436	0.488017	7.137699	-97.6401	200.6957	1028.033	12.00073	
1.024339	-0.06352	0.489972	7.13797	-97.6543	200.8575	1028.031	12.00052	
1.024378	-0.06915	0.476986	7.142455	-97.8958	200.6427	1028.066	12.00897	
1.024379	-0.06899	0.477338	7.142748	-97.9115	200.6546	1028.066	12.00919	
1.02438	-0.06884	0.477689	7.143041	-97.9271	200.6665	1028.067	12.00941	
1.024381	-0.06869	0.478041	7.143333	-97.9427	200.6784	1028.068	12.00963	

Location Properties T3-3HT
Location Name = Device Location

Report Properties
Start Time = 2022-12-20 07:38:28
Time Offset = -05:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	7.356878	83.84686	128.1037	39094.39	12.42521	45707.3	33.59252	29.70975	25.57912
########	7.350317	83.77657	127.996	39094.29	12.43135	45700.91	33.58728	29.70559	25.57918
########	7.343757	83.70629	127.8884	39094.2	12.43749	45694.52	33.58204	29.70144	25.57924
########	7.267574	82.94991	126.7272	39174.84	12.49637	45728.64	33.60994	29.72362	25.52661
########	7.262557	82.89781	126.6474	39177.98	12.50124	45727.34	33.60887	29.72278	25.52456
########	7.257539	82.84572	126.5676	39181.12	12.5061	45726.04	33.6078	29.72193	25.52251
########	7.252521	82.79362	126.4879	39184.26	12.51096	45724.74	33.60673	29.72108	25.52046
########	7.185129	82.13304	125.4702	39206.79	12.5287	45732.96	33.61344	29.72643	25.5058
########	7.18059	82.08831	125.4014	39209.29	12.53066	45733.89	33.6142	29.72703	25.50417
########	7.176052	82.04357	125.3326	39211.79	12.53262	45734.81	33.61495	29.72762	25.50253
########	7.171514	81.99884	125.2637	39214.29	12.53458	45735.73	33.6157	29.72822	25.5009

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.025416	-0.08059	0.450593	7.451801	-114.065	110.1312	1028.062	11.96901	
1.025411	-0.08054	0.450702	7.451897	-114.072	110.133	1028.063	11.96923	
1.025406	-0.08049	0.450811	7.451993	-114.08	110.1348	1028.065	11.96945	
1.025416	-0.07312	0.467816	7.454253	-114.205	110.1074	1028.075	11.96964	
1.025414	-0.07279	0.468575	7.454379	-114.212	110.1068	1028.077	11.96981	
1.025412	-0.07246	0.469334	7.454504	-114.22	110.1061	1028.078	11.96997	
1.02541	-0.07213	0.470093	7.45463	-114.228	110.1055	1028.08	11.97014	
1.025412	-0.07024	0.474473	7.457092	-114.372	110.1346	1028.071	11.97	
1.025412	-0.07001	0.474985	7.457246	-114.381	110.1354	1028.07	11.97	
1.025413	-0.06979	0.475498	7.457401	-114.39	110.1363	1028.07	11.97	
1.025413	-0.06957	0.47601	7.457555	-114.399	110.1371	1028.07	11.97	

Location Properties T3-3HTS
Location Name = Device Location

Report Properties
Start Time = 2022-12-20 07:31:30
Time Offset = -05:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
########	8.455051	95.69411	146.2265	38062	12.39561	44529.65	32.62971	28.94427	26.27293
########	8.455051	95.69411	146.2265	38062	12.39561	44529.65	32.62971	28.94427	26.27293
########	8.242694	93.27145	142.5218	38021.93	12.39669	44481.7	32.5906	28.91311	26.30062
########	8.228765	93.11255	142.2788	38019.3	12.39676	44478.56	32.58803	28.91106	26.30243
########	8.214836	92.95364	142.0358	38016.67	12.39683	44475.41	32.58546	28.90902	26.30425
########	8.200908	92.79474	141.7928	38014.04	12.3969	44472.27	32.5829	28.90697	26.30606
########	8.100548	91.66614	140.0658	37962.36	12.41118	44397.65	32.52202	28.85847	26.34189
########	8.090442	91.55157	139.8906	37959	12.41184	44393.06	32.51828	28.85549	26.34422
########	8.080337	91.43701	139.7153	37955.64	12.4125	44388.47	32.51453	28.85251	26.34655
########	8.07023	91.32245	139.5401	37952.28	12.41317	44383.89	32.51079	28.84953	26.34887
########	7.973125	90.24139	137.8885	37949.83	12.43806	44356.36	32.48831	28.83164	26.35058

Density (g/	Pressure (p	Depth (ft)	pH (pH) (2	pH mV (m	ORP (mV)	Barometri	Temperatu	Marked
1.024675	-0.07449	0.46465	7.388798	-110.745	136.6895	1028.18	11.89	
1.024675	-0.07449	0.46465	7.388798	-110.745	136.6895	1028.18	11.89	
1.024644	-0.09427	0.419044	7.388866	-110.755	140.6718	1028.161	11.88059	
1.024642	-0.09556	0.416053	7.38887	-110.756	140.933	1028.16	11.87998	
1.02464	-0.09686	0.413061	7.388875	-110.756	141.1942	1028.158	11.87936	
1.024638	-0.09816	0.41007	7.388879	-110.757	141.4554	1028.157	11.87874	
1.024588	-0.07937	0.453401	7.390895	-110.864	141.5474	1028.16	11.88022	
1.024585	-0.07906	0.454109	7.390987	-110.869	141.6575	1028.16	11.88003	
1.024582	-0.07876	0.454817	7.391078	-110.874	141.7676	1028.159	11.87984	
1.024579	-0.07845	0.455525	7.391169	-110.879	141.8777	1028.159	11.87966	
1.024557	-0.06922	0.476826	7.392762	-110.968	141.8666	1028.177	11.88	

APPENDIX D

STATISICAL ANALYSES

GROUNDWATER STATS CONSULTING

February 28, 2023

Resolute Environmental & Water Resources Consulting
Attn: Mr. Stephen Wilson
1003 Weatherstone Parkway, Ste. 320
Woodstock, GA 30188

Re: Plant McManus Ash Pond (AP)
Statistical Analysis – September 2022 Sample Event

Dear Mr. Wilson,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the statistical analysis of groundwater data for the September 2022 sample event for Georgia Power Company's Plant McManus Ash Pond. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals (CCR) from Electric Utilities (CCR Rule, 2015), the Georgia Environmental Protection Division Rules (EPD) for Solid Waste Management Chapter 391-3-4-.10, and follows the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

The groundwater monitoring well network consists of the following:

- **Upgradient Wells:** MCM-01, MCM-02, MCM-11, MCM-15, MCM-16, MCM-18, MCM-19, and MCM-20
- **Downgradient Wells:** MCM-04, MCM-05, MCM-06, MCM-07, MCM-12, MCM-14, and MCM-17
- **Assessment Well:** DPZ-2

Note that upgradient wells MCM-18, MCM-19, and MCM-20 were installed late in 2019. Assessment well DPZ-2 is evaluated with confidence intervals for Appendix IV constituents when four or more samples are available. A minimum of 8 samples have been collected at each upgradient and downgradient well and data from these wells are included in this analysis.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Andrew Collins, Project Manager for Groundwater Stats Consulting.

The statistical analysis provided in this report was performed according to the background screening conducted by MacStat Consulting in April 2019. Interwell prediction limits, combined with a 1-of-2 resample plan, for Appendix III parameters were recommended as the primary statistical method.

The CCR program monitors the constituents listed below. The terms "parameters" and "constituents" are used interchangeably.

- **Appendix III** (Detection Monitoring) **-** boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- **Appendix IV** (Assessment Monitoring) **–** antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A list of Appendix IV downgradient and assessment well/constituent pairs with 100% non-detects follow this letter.

For all constituents, a substitution of the most recent reporting limit is used for non-detect data. However, varying reporting limits were identified for antimony, cobalt, cadmium, chromium, fluoride, and lead. Therefore, historical reporting limits were substituted for all non-detects for these constituents to maintain more conservative limits. Note that the reporting limit for cobalt decreased from 0.02 mg/L to 0.0025 mg/L and the reporting limit for lithium decreased from 0.05 mg/L to 0.025 mg/L during this event.

Note that Resolute Environmental & Water Resources Consulting had the September 2022 lithium observations at MCM-06 and MCM-20 re-analyzed with a lower detection limit and the re-analyzed values are evaluated in this report.

Some constituents exist in higher concentrations in upgradient wells compared to those reported in one or more downgradient wells which is reflective of natural variation in groundwater quality. In other cases, concentrations exist higher in downgradient wells relative to observations reported upgradient of the facility, as seen in the majority of the Appendix III parameters. This may be reflective of natural variation or a result of practices at the facility. A separate study and hydrogeological investigation would be required to fully understand the geochemical conditions and expected groundwater quality for the

region. That study and assessment is beyond the scope of services provided by Groundwater Stats Consulting.

Time series plots for Appendix III and IV parameters at all wells are provided for the purpose of screening data at these wells (Figure A). Additionally, a separate section of box plots is included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs.

As a result of the previous background screening, the following non-detect values were flagged due to elevated reporting limits: 0.025 mg/L for lead in upgradient well MCM-19; and 0.1 mg/L, 0.15 mg/L and 0.3 mg/L for lithium in upgradient well MCM-18. Additionally, a high value for combined radium 226 + 228 in upgradient well MCM-20 was flagged as an outlier as well as a high value for fluoride in downgradient well MCM-06. This step results in construction of background limits that are conservative from a regulatory perspective. A summary of flagged outliers follows this report (Figure C).

Based on the 2019 screening, data at all wells for constituents detected in downgradient wells were evaluated for the following: 1) outliers; 2) trends; 3) most appropriate statistical method based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods were recommended. Power curves were provided with the 2019 screening to demonstrate that the selected statistical methods for the parameters listed above comply with the USEPA Unified Guidance and the Georgia Environmental Protection Division Rules for Solid Waste Management Chapter 391-3-4-.10. The EPA suggests the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations.

Summary of Statistical Methods:

Based on the evaluation for state and federal regulatory requirements, the following methods were selected for Appendix III and IV constituents:

- Appendix III: Interwell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- Appendix IV: Confidence intervals on downgradient well data compared against Groundwater Protection Standards (GWPS) for each detected Appendix IV constituent

The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. Parametric prediction limits (or tolerance limits or confidence intervals as applicable) are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. While the false positive rate associated with the parametric limits is based on an annual 10% (5% per semi-annual event) as recommended by the EPA Unified Guidance (2009), the false positive rate associated with the nonparametric limits is dependent upon the available background sample size, number of future comparisons, and verification resample plan. The following approaches are used for handling non-detects (USEPA, 2009):

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the interwell case, prediction limits are updated with upgradient well data during each event after careful screening for any new outliers. While this was not required for this report, in some cases, deselecting the earlier portion of data may be necessary prior to construction of limits so that resulting statistical limits are conservative (lower) from a regulatory perspective and capable of rapidly detecting changes in groundwater quality. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

Statistical Analysis of Appendix III Parameters – September 2022

All Appendix III parameters were analyzed using interwell prediction limits. Background (upgradient) well data were re-assessed for potential outliers during this analysis. The most recent value for fluoride at upgradient well MCM-20 (4.3 mg/L) was flagged in order

to maintain statistical limits that are more conservative (i.e., lower) from a regulatory perspective. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs. A summary of flagged outliers follows this report (Figure C).

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data through September 2022 (Figure D). Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The September 2022 sample from each downgradient well is compared to the background limit to determine whether initial exceedances are present.

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When a resample confirms the initial exceedance, a statistically significant increase is identified and further research would be required to identify the cause of the exceedance (i.e., impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result and, therefore, no exceedance is noted and no further action is necessary. If no resample is collected, the original result is considered a confirmed exceedance. A summary table of the interwell prediction limits follows this letter and includes a list of exceedances. Exceedances were identified for the following well/constituent pairs:

- Boron: MCM-17
- Calcium: MCM-07
- pH: MCM-05, MCM-06, MCM-07, MCM-12, MCM-14, and MCM-17

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable (Figure E). Upgradient well data are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site. Trends identified in upgradient wells are an indication of natural variability in groundwater quality unrelated to practices at the site. A summary of trend test results follows this letter including a list of statistically significant trends. Statistically significant trends were identified for the following well/constituent pairs:

Increasing:

- Calcium: MCM-07
- pH: MCM-18 (upgradient)

Decreasing:

- Calcium: MCM-02, MCM-18, and MCM-20 (all upgradient)
- pH: MCM-07, MCM14, and MCM-20 (upgradient)

Statistical Analysis of Appendix IV Parameters – September 2022

For Appendix IV parameters, confidence intervals for each downgradient well/constituent pair were compared against corresponding Groundwater Protection Standards (GWPS). GWPS were developed as described below. Downgradient and assessment well/constituent pairs containing 100% non-detects do not require analysis. Data from upgradient wells for Appendix IV parameters are reassessed for outliers during each analysis. The most recent values for cadmium at upgradient well MCM-19 (0.0083 mg/L) and fluoride at upgradient well MCM-20 (4.3 mg/L) were flagged in order to maintain more conservative (i.e., lower) limits. A summary of all flagged outliers follows this report (Figure C).

Interwell Upper Tolerance Limits

First, interwell tolerance limits were used to calculate site-specific background limits from all available pooled upgradient well data through September 2022 for Appendix IV constituents (Figure F). Parametric tolerance limits are used when data follow a normal or transformed-normal distribution. When data contained greater than 50% non-detects or did not follow a normal or transformed-normal distribution, non-parametric tolerance limits were used.

Groundwater Protection Standards

The background limits were then used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and Georgia EPD Rule 391-3-4-.10(6)(a). On July 30, 2018, US EPA revised the Federal CCR rule updating GWPS for cobalt, lead, lithium, and molybdenum as described above in 40 CFR §257.95(h)(2). Effective on February 22, 2022, Georgia EPD incorporated the updated GWPS into the current Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a). In accordance with the updated Rules, the GWPS is:

- The maximum contaminant level (MCL) established under §141.62 and §141.66 of this title
- Where an MCL has not been established for a constituent, Federal and State CCR Rules specify levels for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), and molybdenum (0.100 mg/L)

- The respective background level for a constituent when the background level is higher than the MCL or Federal CCR Rule identified GWPS

Following Georgia EPD Rule requirements and the Federal CCR requirements, GWPS were established for statistical comparison of Appendix IV constituents for this sample event (Figure G).

Confidence Intervals

To complete the statistical comparison of downgradient well data to GWPS, confidence intervals were constructed for the Appendix IV constituents in each downgradient and assessment well using all available data through September 2022. Note that confidence intervals require a minimum of 4 samples and, in some cases, assessment well DPZ-2 had insufficient samples at this time.

The Sanitas software was used to calculate both the tolerance limits and the confidence intervals. Confidence intervals were compared to the GWPS prepared as described above (Figure H). Only when the entire confidence interval is above a GWPS is the downgradient well/constituent pair considered to exceed its respective standard. If there is an exceedance of the GWPS, a statistically significant level (SSL) exceedance is identified. A summary of the confidence intervals follows this letter and no exceedances were identified.

Only when the entire confidence interval is above a GWPS is the downgradient well/constituent pair considered to exceed its respective standard. If there is an exceedance of the GWPS, a statistically significant level (SSL) exceedance is identified. Summaries of the confidence intervals follow this letter and exceedances were identified for the following well/constituent pairs:

- Arsenic: MCM-06
- Lithium: DPZ-02 and MCM-06

Trend Test Evaluation – Appendix IV

The Sen's Slope/Mann Kendall trend test was conducted to determine whether concentrations are statistically increasing, decreasing, or stable (Figure I). Upgradient wells are included in the trend analyses to identify whether similar patterns exist upgradient of the site for the same constituents. When trends are present in upgradient trends, it is an indication of natural variability in groundwater quality unrelated to practices at the site. A

summary of the Appendix IV trend test results follows this letter and no statistically significant trends were identified.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for the Plant McManus Ash Pond. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,

Abdul Diane
Groundwater Analyst

Andrew T. Collins
Project Manager

100% Non-Detects: Appendix IV Downgradient & Assessment

Analysis Run 12/8/2022 4:24 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Antimony (mg/L)
DPZ-02, MCM-04, MCM-05, MCM-07, MCM-12

Beryllium (mg/L)
DPZ-02, MCM-06

Cadmium (mg/L)
DPZ-02, MCM-05, MCM-06, MCM-12, MCM-14

Chromium (mg/L)
DPZ-02

Cobalt (mg/L)
DPZ-02

Lead (mg/L)
DPZ-02, MCM-04

Mercury (mg/L)
DPZ-02, MCM-12

Molybdenum (mg/L)
DPZ-02, MCM-12, MCM-14

Selenium (mg/L)
DPZ-02

Thallium (mg/L)
DPZ-02, MCM-04, MCM-05, MCM-07, MCM-12, MCM-14

Interwell Prediction Limits - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/8/2022, 4:15 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**MCM-17**	**1.3**	**n/a**	**9/21/2022**	**1.8**	**Yes**	**122**	**n/a**	**n/a**	**8.197**	**n/a**	**n/a**	**0.0001314**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**MCM-07**	**169**	**n/a**	**9/21/2022**	**190**	**Yes**	**123**	**n/a**	**n/a**	**0.813**	**n/a**	**n/a**	**0.0001296**	**NP Inter (normality) 1 of 2**
pH, field (Std. Units)	**MCM-05**	**5.81**	**3.36**	**9/21/2022**	**6.93**	**Yes**	**126**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0002486**	**NP Inter (normality) 1 of 2**
pH, field (Std. Units)	**MCM-06**	**5.81**	**3.36**	**9/20/2022**	**7.29**	**Yes**	**126**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0002486**	**NP Inter (normality) 1 of 2**
pH, field (Std. Units)	**MCM-07**	**5.81**	**3.36**	**9/21/2022**	**6.27**	**Yes**	**126**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0002486**	**NP Inter (normality) 1 of 2**
pH, field (Std. Units)	**MCM-12**	**5.81**	**3.36**	**9/21/2022**	**6.3**	**Yes**	**126**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0002486**	**NP Inter (normality) 1 of 2**
pH, field (Std. Units)	**MCM-14**	**5.81**	**3.36**	**9/21/2022**	**6.61**	**Yes**	**126**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0002486**	**NP Inter (normality) 1 of 2**
pH, field (Std. Units)	**MCM-17**	**5.81**	**3.36**	**9/21/2022**	**6.72**	**Yes**	**126**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0002486**	**NP Inter (normality) 1 of 2**

Interwell Prediction Limits - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/8/2022, 4:15 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MCM-04	1.3	n/a	9/21/2022	0.19J	No	122	n/a	n/a	8.197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-05	1.3	n/a	9/21/2022	0.61	No	122	n/a	n/a	8.197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-06	1.3	n/a	9/20/2022	1.1	No	122	n/a	n/a	8.197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-07	1.3	n/a	9/21/2022	1.3	No	122	n/a	n/a	8.197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-12	1.3	n/a	9/21/2022	1.3	No	122	n/a	n/a	8.197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-14	1.3	n/a	9/21/2022	1	No	122	n/a	n/a	8.197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Boron (mg/L)	**MCM-17**	**1.3**	**n/a**	**9/21/2022**	**1.8**	**Yes**	**122**	**n/a**	**n/a**	**8.197**	**n/a**	**n/a**	**0.0001314**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	MCM-04	169	n/a	9/21/2022	7.8	No	123	n/a	n/a	0.813	n/a	n/a	0.0001296	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-05	169	n/a	9/21/2022	28	No	123	n/a	n/a	0.813	n/a	n/a	0.0001296	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-06	169	n/a	9/20/2022	47	No	123	n/a	n/a	0.813	n/a	n/a	0.0001296	NP Inter (normality) 1 of 2
Calcium (mg/L)	**MCM-07**	**169**	**n/a**	**9/21/2022**	**190**	**Yes**	**123**	**n/a**	**n/a**	**0.813**	**n/a**	**n/a**	**0.0001296**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	MCM-12	169	n/a	9/21/2022	4.7	No	123	n/a	n/a	0.813	n/a	n/a	0.0001296	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-14	169	n/a	9/21/2022	74	No	123	n/a	n/a	0.813	n/a	n/a	0.0001296	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-17	169	n/a	9/21/2022	110	No	123	n/a	n/a	0.813	n/a	n/a	0.0001296	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-04	8130	n/a	9/21/2022	47	No	122	n/a	n/a	0.8197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-05	8130	n/a	9/21/2022	1100	No	122	n/a	n/a	0.8197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-06	8130	n/a	9/20/2022	2800	No	122	n/a	n/a	0.8197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-07	8130	n/a	9/21/2022	6400	No	122	n/a	n/a	0.8197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-12	8130	n/a	9/21/2022	400	No	122	n/a	n/a	0.8197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-14	8130	n/a	9/21/2022	3300	No	122	n/a	n/a	0.8197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-17	8130	n/a	9/21/2022	3300	No	122	n/a	n/a	0.8197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-04	1.5	n/a	9/21/2022	0.1ND	No	126	n/a	n/a	50	n/a	n/a	0.0001243	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-05	1.5	n/a	9/21/2022	0.48	No	126	n/a	n/a	50	n/a	n/a	0.0001243	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-06	1.5	n/a	9/20/2022	1.1J	No	126	n/a	n/a	50	n/a	n/a	0.0001243	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-07	1.5	n/a	9/21/2022	0.18	No	126	n/a	n/a	50	n/a	n/a	0.0001243	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-12	1.5	n/a	9/21/2022	1.3	No	126	n/a	n/a	50	n/a	n/a	0.0001243	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-14	1.5	n/a	9/21/2022	0.12	No	126	n/a	n/a	50	n/a	n/a	0.0001243	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-17	1.5	n/a	9/21/2022	0.78	No	126	n/a	n/a	50	n/a	n/a	0.0001243	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-04	5.81	3.36	9/21/2022	5.34	No	126	n/a	n/a	0	n/a	n/a	0.0002486	NP Inter (normality) 1 of 2
pH, field (Std. Units)	**MCM-05**	**5.81**	**3.36**	**9/21/2022**	**6.93**	**Yes**	**126**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0002486**	**NP Inter (normality) 1 of 2**
pH, field (Std. Units)	**MCM-06**	**5.81**	**3.36**	**9/20/2022**	**7.29**	**Yes**	**126**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0002486**	**NP Inter (normality) 1 of 2**
pH, field (Std. Units)	**MCM-07**	**5.81**	**3.36**	**9/21/2022**	**6.27**	**Yes**	**126**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0002486**	**NP Inter (normality) 1 of 2**
pH, field (Std. Units)	**MCM-12**	**5.81**	**3.36**	**9/21/2022**	**6.3**	**Yes**	**126**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0002486**	**NP Inter (normality) 1 of 2**
pH, field (Std. Units)	**MCM-14**	**5.81**	**3.36**	**9/21/2022**	**6.61**	**Yes**	**126**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0002486**	**NP Inter (normality) 1 of 2**
pH, field (Std. Units)	**MCM-17**	**5.81**	**3.36**	**9/21/2022**	**6.72**	**Yes**	**126**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0002486**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	MCM-04	1140	n/a	9/21/2022	52	No	121	n/a	n/a	0.8264	n/a	n/a	0.0001331	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-05	1140	n/a	9/21/2022	100	No	121	n/a	n/a	0.8264	n/a	n/a	0.0001331	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-06	1140	n/a	9/20/2022	320	No	121	n/a	n/a	0.8264	n/a	n/a	0.0001331	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-07	1140	n/a	9/21/2022	660	No	121	n/a	n/a	0.8264	n/a	n/a	0.0001331	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-12	1140	n/a	9/21/2022	0.5ND	No	121	n/a	n/a	0.8264	n/a	n/a	0.0001331	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-14	1140	n/a	9/21/2022	270	No	121	n/a	n/a	0.8264	n/a	n/a	0.0001331	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-17	1140	n/a	9/21/2022	330	No	121	n/a	n/a	0.8264	n/a	n/a	0.0001331	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-04	14600	n/a	9/21/2022	180	No	122	n/a	n/a	0.8197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-05	14600	n/a	9/21/2022	2100	No	122	n/a	n/a	0.8197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-06	14600	n/a	9/20/2022	3900	No	122	n/a	n/a	0.8197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-07	14600	n/a	9/21/2022	9400	No	122	n/a	n/a	0.8197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-12	14600	n/a	9/21/2022	1300	No	122	n/a	n/a	0.8197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-14	14600	n/a	9/21/2022	7400	No	122	n/a	n/a	0.8197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-17	14600	n/a	9/21/2022	6200	No	122	n/a	n/a	0.8197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2

Trend Tests - Prediction Limit Exceedances - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/8/2022, 4:17 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	**MCM-02 (bg)**	**-0.203**	**-59**	**-58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MCM-07**	**22.69**	**65**	**63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MCM-18 (bg)**	**-12.22**	**-69**	**-48**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MCM-20 (bg)**	**-34.13**	**-65**	**-48**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH, field (Std. Units)	**MCM-07**	**-0.05609**	**-74**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH, field (Std. Units)	**MCM-14**	**-0.1164**	**-118**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH, field (Std. Units)	**MCM-18 (bg)**	**0.09133**	**51**	**43**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH, field (Std. Units)	**MCM-20 (bg)**	**-0.0637**	**-49**	**-43**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Trend Tests - Prediction Limit Exceedances - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/8/2022, 4:17 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MCM-01 (bg)	0.004651	42	58	No	16	12.5	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-02 (bg)	-0.01071	-19	-58	No	16	12.5	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-11 (bg)	0.00389	26	58	No	16	12.5	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-15 (bg)	0.007093	42	58	No	16	12.5	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-16 (bg)	-0.004349	-25	-58	No	16	12.5	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-17	-0.04944	-27	-63	No	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-18 (bg)	-0.01812	-39	-48	No	14	0	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-19 (bg)	0.007503	3	48	No	14	0	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-20 (bg)	-0.01501	-13	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-01 (bg)	-0.2923	-18	-63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**MCM-02 (bg)**	**-0.203**	**-59**	**-58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MCM-07**	**22.69**	**65**	**63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	MCM-11 (bg)	-1.082	-32	-58	No	16	6.25	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-15 (bg)	0	2	58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-16 (bg)	0.02199	7	58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**MCM-18 (bg)**	**-12.22**	**-69**	**-48**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	MCM-19 (bg)	-30.04	-42	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**MCM-20 (bg)**	**-34.13**	**-65**	**-48**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH, field (Std. Units)	MCM-01 (bg)	-0.004468	-4	-68	No	18	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-02 (bg)	0.02274	65	68	No	18	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-05	-0.0466	-43	-74	No	19	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-06	-0.05477	-28	-63	No	17	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	**MCM-07**	**-0.05609**	**-74**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH, field (Std. Units)	MCM-11 (bg)	-0.04429	-60	-63	No	17	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-12	-0.0342	-51	-63	No	17	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	**MCM-14**	**-0.1164**	**-118**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH, field (Std. Units)	MCM-15 (bg)	-0.04201	-34	-63	No	17	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-16 (bg)	-0.001213	-3	-63	No	17	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-17	-0.09481	-64	-68	No	18	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	**MCM-18 (bg)**	**0.09133**	**51**	**43**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH, field (Std. Units)	MCM-19 (bg)	0	2	43	No	13	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	**MCM-20 (bg)**	**-0.0637**	**-49**	**-43**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Upper Tolerance Limit Summary Table

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/22/2022, 1:51 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.003	n/a	n/a	n/a	n/a	107	n/a	n/a	95.33	n/a	n/a	0.004135	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.032	n/a	n/a	n/a	n/a	126	n/a	n/a	14.29	n/a	n/a	0.00156	NP Inter(normality)
Barium (mg/L)	n/a	0.22	n/a	n/a	n/a	n/a	123	n/a	n/a	0	n/a	n/a	0.00182	NP Inter(normality)
Beryllium (mg/L)	n/a	0.021	n/a	n/a	n/a	n/a	122	n/a	n/a	27.05	n/a	n/a	0.001915	NP Inter(normality)
Cadmium (mg/L)	n/a	0.0043	n/a	n/a	n/a	n/a	100	n/a	n/a	92	n/a	n/a	0.005921	NP Inter(NDs)
Chromium (mg/L)	n/a	0.011	n/a	n/a	n/a	n/a	107	n/a	n/a	50.47	n/a	n/a	0.004135	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.036	n/a	n/a	n/a	n/a	122	n/a	n/a	72.95	n/a	n/a	0.001915	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	55.8	n/a	n/a	n/a	n/a	121	n/a	n/a	0	n/a	n/a	0.002016	NP Inter(normality)
Fluoride (mg/L)	n/a	1.5	n/a	n/a	n/a	n/a	126	n/a	n/a	50	n/a	n/a	0.00156	NP Inter(normality)
Lead (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a	122	n/a	n/a	83.61	n/a	n/a	0.001915	NP Inter(NDs)
Lithium (mg/L)	n/a	0.029	n/a	n/a	n/a	n/a	119	n/a	n/a	55.46	n/a	n/a	0.002234	NP Inter(NDs)
Mercury (mg/L)	n/a	0.0007	n/a	n/a	n/a	n/a	101	n/a	n/a	95.05	n/a	n/a	0.005625	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.01	n/a	n/a	n/a	n/a	106	n/a	n/a	90.57	n/a	n/a	0.004352	NP Inter(NDs)
Selenium (mg/L)	n/a	0.15	n/a	n/a	n/a	n/a	123	n/a	n/a	61.79	n/a	n/a	0.00182	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	n/a	n/a	n/a	106	n/a	n/a	92.45	n/a	n/a	0.004352	NP Inter(NDs)

MCMANUS ASH POND GWPS				
Constituent Name	**MCL**	**CCR-Rule Specified**	**Background Limit**	**GWPS**
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.032	0.032
Barium, Total (mg/L)	2		0.22	2
Beryllium, Total (mg/L)	0.004		0.021	0.021
Cadmium, Total (mg/L)	0.005		0.0043	0.005
Chromium, Total (mg/L)	0.1		0.011	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.036	0.036
Combined Radium, Total (pCi/L)	5		55.8	55.8
Fluoride, Total (mg/L)	4		1.5	4
Lead, Total (mg/L)	n/a	0.015	0.005	0.015
Lithium, Total (mg/L)	n/a	0.04	0.029	0.04
Mercury, Total (mg/L)	0.002		0.0007	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.01	0.1
Selenium, Total (mg/L)	0.05		0.15	0.15
Thallium, Total (mg/L)	0.002		0.001	0.002

**Grey cell indicates Background Limit is higher than MCL or CCR-Rule Specified Level*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residual*

**GWPS = Groundwater Protection Standard*

Confidence Intervals - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/22/2022, 2:00 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	**MCM-06**	**0.419**	**0.2642**	**0.032**	**Yes**	**20**	**0.3416**	**0.1364**	**0**	**None**	**No**	**0.01**	**Param.**
Lithium (mg/L)	**DPZ-02**	**0.09839**	**0.06881**	**0.04**	**Yes**	**7**	**0.07907**	**0.02995**	**14.29**	**None**	**x^4**	**0.01**	**Param.**
Lithium (mg/L)	**MCM-06**	**0.09647**	**0.0557**	**0.04**	**Yes**	**17**	**0.07608**	**0.03253**	**0**	**None**	**No**	**0.01**	**Param.**

Confidence Intervals - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/22/2022, 2:00 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	MCM-06	0.003	0.0029	0.006	No	15	0.002719	0.0007228	80	None	No	0.01	NP (NDs)
Antimony (mg/L)	MCM-14	0.003	0.0004	0.006	No	14	0.002814	0.0006949	92.86	None	No	0.01	NP (NDs)
Antimony (mg/L)	MCM-17	0.003	0.00078	0.006	No	14	0.002841	0.0005933	92.86	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DPZ-02	0.1	0.015	0.032	No	6	0.03267	0.0331	16.67	None	No	0.0155	NP (normality)
Arsenic (mg/L)	MCM-04	0.007099	0.002848	0.032	No	17	0.005459	0.004106	0	None	x^(1/3)	0.01	Param.
Arsenic (mg/L)	MCM-05	0.01548	0.004029	0.032	No	19	0.01484	0.01165	15.79	Kaplan-Meier	sqrt(x)	0.01	Param.
Arsenic (mg/L)	**MCM-06**	**0.419**	**0.2642**	**0.032**	**Yes**	**20**	**0.3416**	**0.1364**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	MCM-07	0.01945	0.01054	0.032	No	19	0.01559	0.007958	0	None	sqrt(x)	0.01	Param.
Arsenic (mg/L)	MCM-12	0.0063	0.001	0.032	No	16	0.004331	0.002576	56.25	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MCM-14	0.0067	0.0014	0.032	No	16	0.004863	0.002306	56.25	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MCM-17	0.0063	0.0018	0.032	No	17	0.004518	0.002169	47.06	None	No	0.01	NP (normality)
Barium (mg/L)	DPZ-02	0.09686	0.05994	2	No	5	0.0784	0.01101	0	None	No	0.01	Param.
Barium (mg/L)	MCM-04	0.07989	0.03217	2	No	16	0.06769	0.07126	0	None	ln(x)	0.01	Param.
Barium (mg/L)	MCM-05	0.04117	0.01055	2	No	17	0.04808	0.1054	0	None	ln(x)	0.01	Param.
Barium (mg/L)	MCM-06	0.1371	0.06635	2	No	17	0.1017	0.05647	0	None	No	0.01	Param.
Barium (mg/L)	MCM-07	0.2	0.1	2	No	16	0.1589	0.09263	0	None	No	0.01	NP (normality)
Barium (mg/L)	MCM-12	0.1257	0.09678	2	No	16	0.1113	0.02224	0	None	No	0.01	Param.
Barium (mg/L)	MCM-14	0.1267	0.05881	2	No	16	0.09276	0.05218	0	None	No	0.01	Param.
Barium (mg/L)	MCM-17	0.1326	0.0663	2	No	16	0.09943	0.05093	0	None	No	0.01	Param.
Beryllium (mg/L)	MCM-04	0.0025	0.00021	0.021	No	16	0.001129	0.001106	37.5	None	No	0.01	NP (normality)
Beryllium (mg/L)	MCM-05	0.0025	0.000054	0.021	No	17	0.002356	0.0005932	94.12	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MCM-07	0.0025	0.00012	0.021	No	16	0.002048	0.0009713	81.25	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MCM-12	0.001226	0.0005293	0.021	No	16	0.0009425	0.0006676	12.5	None	x^(1/3)	0.01	Param.
Beryllium (mg/L)	MCM-14	0.0025	0.0001	0.021	No	16	0.001753	0.001145	68.75	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MCM-17	0.002	0.0002	0.021	No	16	0.0009081	0.0008755	37.5	None	No	0.01	NP (normality)
Cadmium (mg/L)	MCM-04	0.0025	0.00043	0.005	No	13	0.002341	0.0005741	92.31	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MCM-07	0.0025	0.0002	0.005	No	13	0.002323	0.0006379	92.31	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MCM-17	0.0025	0.000093	0.005	No	13	0.002315	0.0006676	92.31	None	No	0.01	NP (NDs)
Chromium (mg/L)	MCM-04	0.01	0.00085	0.1	No	14	0.005025	0.004479	42.86	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-05	0.01	0.0007	0.1	No	14	0.005503	0.004676	50	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-06	0.01	0.001	0.1	No	15	0.00701	0.00438	66.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	MCM-07	0.01	0.002	0.1	No	14	0.005064	0.003825	35.71	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-12	0.01	0.005	0.1	No	14	0.007221	0.002319	35.71	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-14	0.01	0.0015	0.1	No	14	0.005198	0.00434	42.86	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-17	0.01225	0.007354	0.1	No	14	0.01063	0.003069	28.57	Kaplan-Meier	No	0.01	Param.
Cobalt (mg/L)	MCM-04	0.0063	0.0025	0.036	No	17	0.004518	0.002316	41.18	None	No	0.01	NP (normality)
Cobalt (mg/L)	MCM-05	0.0025	0.0019	0.036	No	17	0.002333	0.0005536	88.24	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-06	0.0025	0.0009	0.036	No	17	0.002276	0.0006399	88.24	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-07	0.0025	0.0011	0.036	No	16	0.002276	0.0006298	87.5	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-12	0.0025	0.00053	0.036	No	16	0.001762	0.0009856	62.5	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-14	0.0025	0.0006	0.036	No	16	0.002381	0.000475	93.75	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-17	0.0025	0.00052	0.036	No	16	0.001992	0.0009129	75	None	No	0.01	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	DPZ-02	9.978	5.787	55.8	No	4	7.883	0.9229	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-04	5.506	2.866	55.8	No	16	4.316	2.278	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-05	2.71	1.43	55.8	No	17	2.718	2.163	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MCM-06	8.58	1.83	55.8	No	16	5.191	3.243	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MCM-07	9.295	5.783	55.8	No	17	7.539	2.802	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-12	3.079	2.126	55.8	No	16	2.603	0.7328	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-14	7.329	3.467	55.8	No	17	5.398	3.082	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-17	8.82	2.22	55.8	No	17	5.269	3.011	0	None	No	0.01	NP (normality)
Fluoride (mg/L)	DPZ-02	0.11	0.1	4	No	5	0.102	0.004472	80	None	No	0.031	NP (NDs)
Fluoride (mg/L)	MCM-04	0.12	0.095	4	No	17	0.1331	0.1219	52.94	None	No	0.01	NP (NDs)
Fluoride (mg/L)	MCM-05	0.4419	0.2033	4	No	19	0.4058	0.2315	15.79	Kaplan-Meier	sqrt(x)	0.01	Param.
Fluoride (mg/L)	MCM-06	0.3	0.1	4	No	17	0.244	0.2623	47.06	None	No	0.01	NP (normality)
Fluoride (mg/L)	MCM-07	0.42	0.1	4	No	18	0.2748	0.2796	44.44	None	No	0.01	NP (normality)
Fluoride (mg/L)	MCM-12	1.28	0.987	4	No	17	1.1	0.3205	5.882	None	x^2	0.01	Param.
Fluoride (mg/L)	MCM-14	0.49	0.1	4	No	18	0.218	0.1922	55.56	None	No	0.01	NP (NDs)
Fluoride (mg/L)	MCM-17	1.2	0.1	4	No	18	0.5285	0.4963	38.89	None	No	0.01	NP (normality)

Confidence Intervals - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/22/2022, 2:00 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lead (mg/L)	MCM-05	0.005	0.0002	0.015	No	17	0.004718	0.001164	94.12	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-06	0.005	0.00012	0.015	No	17	0.004713	0.001184	94.12	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-07	0.005	0.0002	0.015	No	16	0.004086	0.001965	81.25	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-12	0.005	0.0001	0.015	No	16	0.003518	0.002276	68.75	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-14	0.005	0.00008	0.015	No	16	0.004692	0.00123	93.75	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-17	0.005	0.00027	0.015	No	16	0.003809	0.00213	75	None	No	0.01	NP (NDs)
Lithium (mg/L)	**DPZ-02**	**0.09839**	**0.06881**	**0.04**	**Yes**	**7**	**0.07907**	**0.02995**	**14.29**	**None**	**x^4**	**0.01**	**Param.**
Lithium (mg/L)	MCM-04	0.025	0.0015	0.04	No	16	0.01347	0.01192	50	None	No	0.01	NP (normality)
Lithium (mg/L)	MCM-05	0.0376	0.021	0.04	No	17	0.05995	0.1317	0	None	No	0.01	NP (normality)
Lithium (mg/L)	**MCM-06**	**0.09647**	**0.0557**	**0.04**	**Yes**	**17**	**0.07608**	**0.03253**	**0**	**None**	**No**	**0.01**	**Param.**
Lithium (mg/L)	MCM-07	0.04934	0.02023	0.04	No	17	0.04114	0.0352	0	None	ln(x)	0.01	Param.
Lithium (mg/L)	MCM-12	0.013	0.0102	0.04	No	16	0.01369	0.005744	18.75	None	No	0.01	NP (normality)
Lithium (mg/L)	MCM-14	0.04813	0.02964	0.04	No	17	0.03614	0.01761	5.882	None	x^2	0.01	Param.
Lithium (mg/L)	MCM-17	0.02516	0.01509	0.04	No	16	0.02013	0.007746	6.25	None	No	0.01	Param.
Mercury (mg/L)	MCM-04	0.00071	0.0002	0.002	No	13	0.0002392	0.0001414	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-05	0.0002	0.000042	0.002	No	13	0.0001878	0.00004382	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-06	0.0002	0.00016	0.002	No	14	0.0001971	0.00001069	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-07	0.00067	0.0002	0.002	No	13	0.0002362	0.0001304	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-14	0.00066	0.0002	0.002	No	13	0.0002354	0.0001276	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-17	0.00064	0.000036	0.002	No	13	0.0002212	0.0001337	84.62	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-04	0.01	0.00015	0.1	No	14	0.009296	0.002633	92.86	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-05	0.01	0.0099	0.1	No	14	0.008718	0.003238	78.57	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-06	0.01	0.0017	0.1	No	15	0.007307	0.003952	66.67	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-07	0.01	0.00095	0.1	No	14	0.009354	0.002419	92.86	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-17	0.01	0.0019	0.1	No	14	0.009421	0.002165	92.86	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-04	0.005	0.0025	0.15	No	16	0.00425	0.001681	81.25	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-05	0.005	0.0028	0.15	No	17	0.004359	0.001203	76.47	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-06	0.0054	0.0022	0.15	No	17	0.004353	0.001779	52.94	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-07	0.005	0.0023	0.15	No	16	0.004175	0.001255	56.25	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-12	0.005	0.0019	0.15	No	16	0.003637	0.001615	56.25	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-14	0.0057	0.0019	0.15	No	16	0.004144	0.001456	62.5	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-17	0.0067	0.0021	0.15	No	16	0.004262	0.001976	50	None	No	0.01	NP (normality)
Thallium (mg/L)	MCM-06	0.001	0.000076	0.002	No	15	0.0009384	0.0002386	93.33	None	No	0.01	NP (NDs)
Thallium (mg/L)	MCM-17	0.001	0.00014	0.002	No	14	0.0009386	0.0002298	92.86	None	No	0.01	NP (NDs)

Appendix IV Trend Tests - All Results (No Significant)

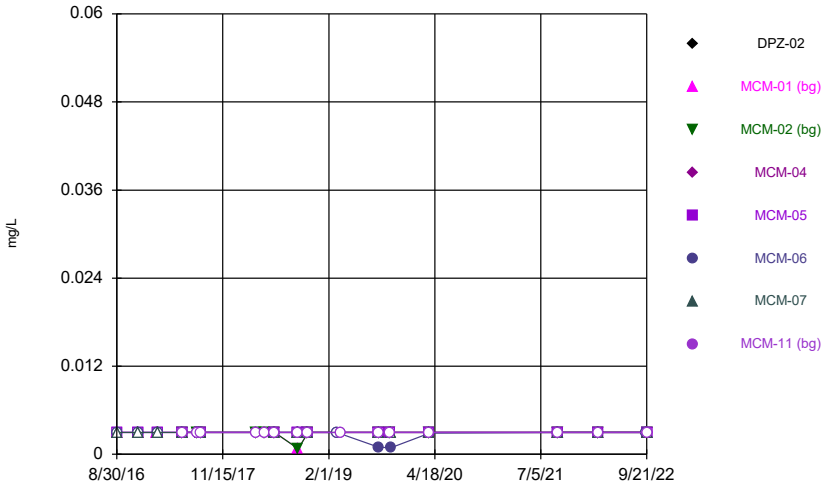
Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/22/2022, 2:04 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	MCM-01 (bg)	0.0008066	39	63	No	17	5.882	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-02 (bg)	0	3	63	No	17	41.18	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-06	0.02021	26	81	No	20	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-11 (bg)	-0.00233	-49	-68	No	18	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-15 (bg)	0.0001728	23	58	No	16	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-16 (bg)	0	-7	-58	No	16	50	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-18 (bg)	-0.001407	-37	-48	No	14	14.29	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-19 (bg)	-0.0005489	-7	-48	No	14	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-20 (bg)	0	1	48	No	14	0	n/a	n/a	0.01	NP
Lithium (mg/L)	DPZ-02	-0.003763	-9	-18	No	7	14.29	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-01 (bg)	0	-11	-58	No	16	87.5	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-02 (bg)	0	3	58	No	16	93.75	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-06	0.008391	38	63	No	17	0	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-11 (bg)	0	13	58	No	16	43.75	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-15 (bg)	0	17	58	No	16	56.25	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-16 (bg)	0	-11	-58	No	16	87.5	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-18 (bg)	0.007745	22	34	No	11	54.55	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-19 (bg)	-0.0007766	-13	-48	No	14	7.143	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-20 (bg)	0	-1	-48	No	14	0	n/a	n/a	0.01	NP

FIGURE A.

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Antimony Analysis Run 12/22/2022 12:03 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

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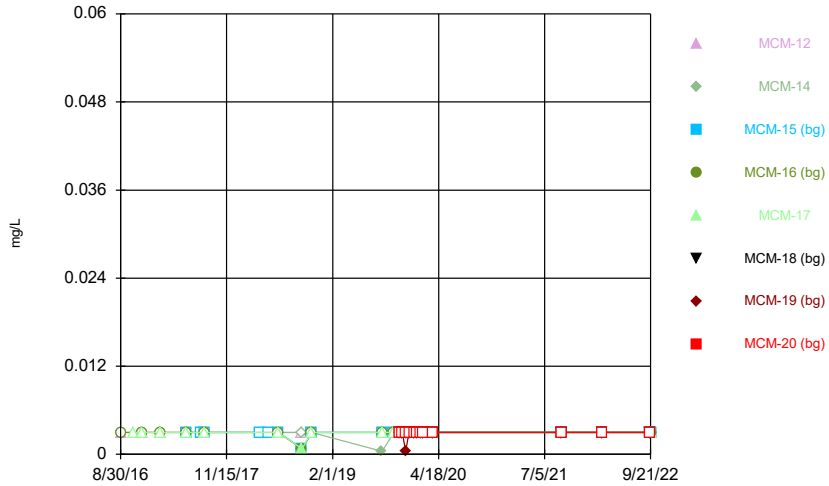

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Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
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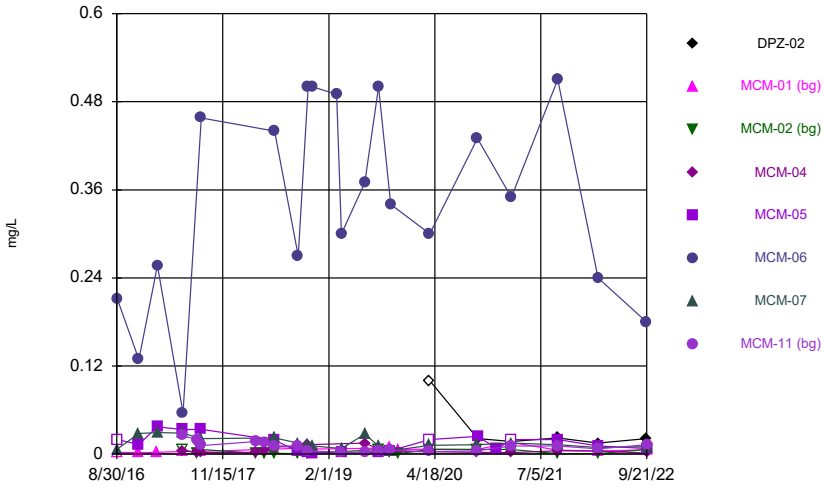

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Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

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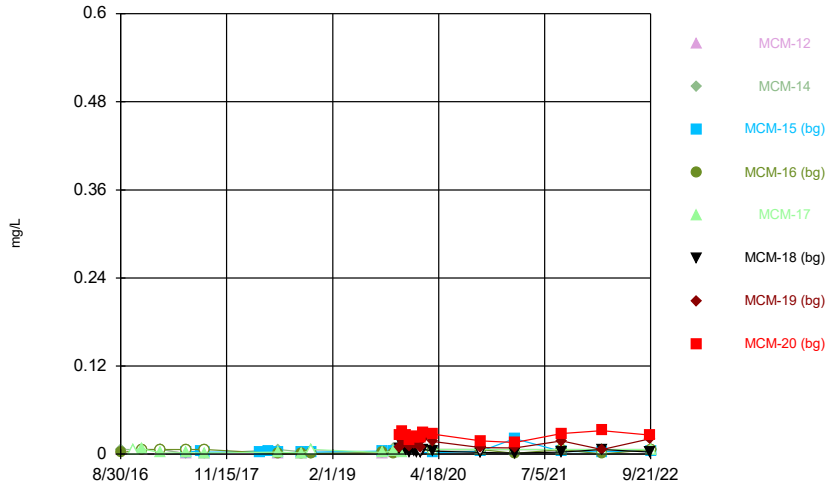

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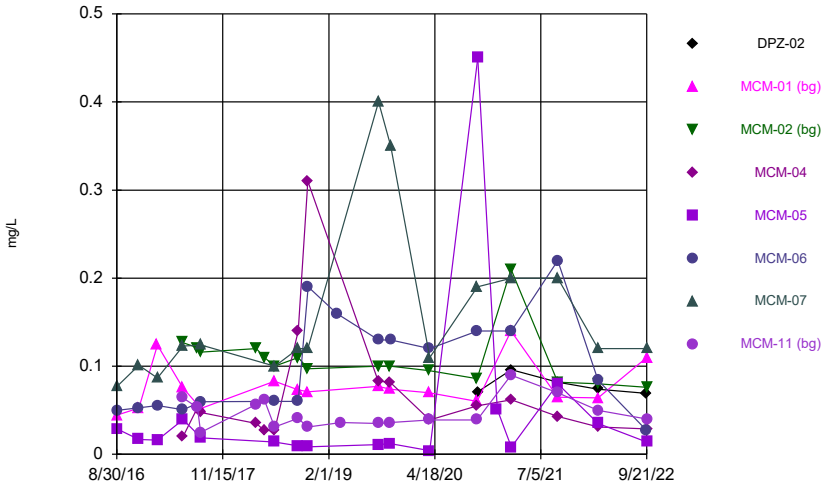
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Time Series



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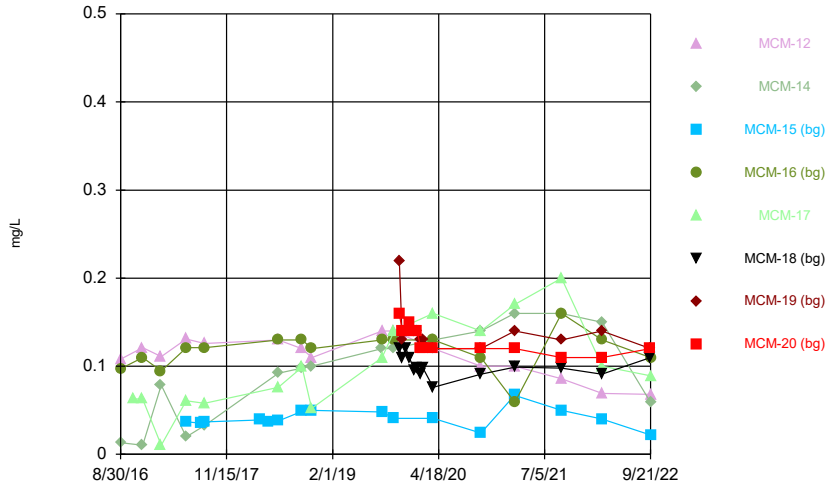
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Time Series



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Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

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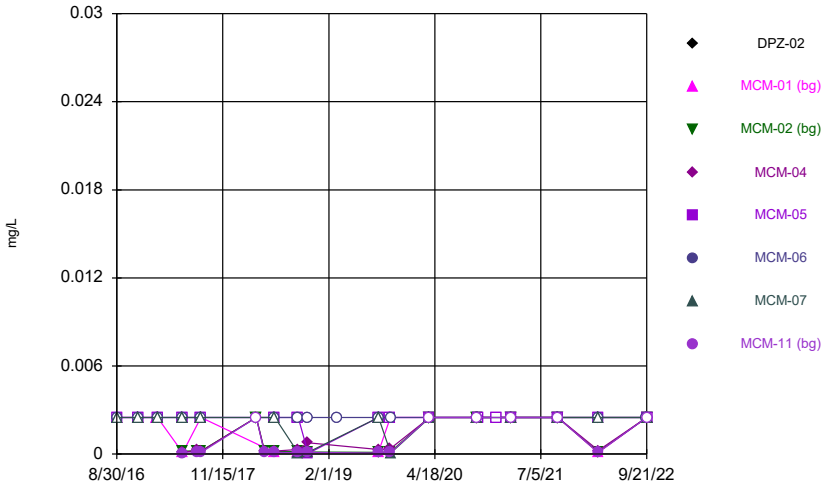

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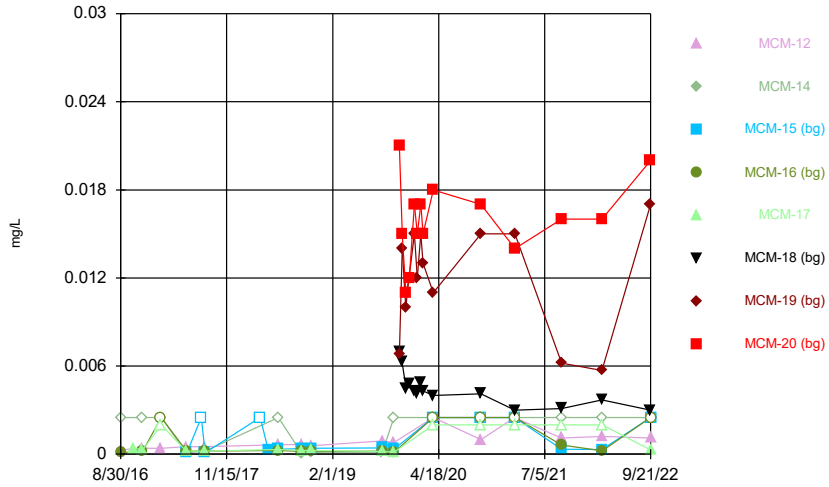
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series

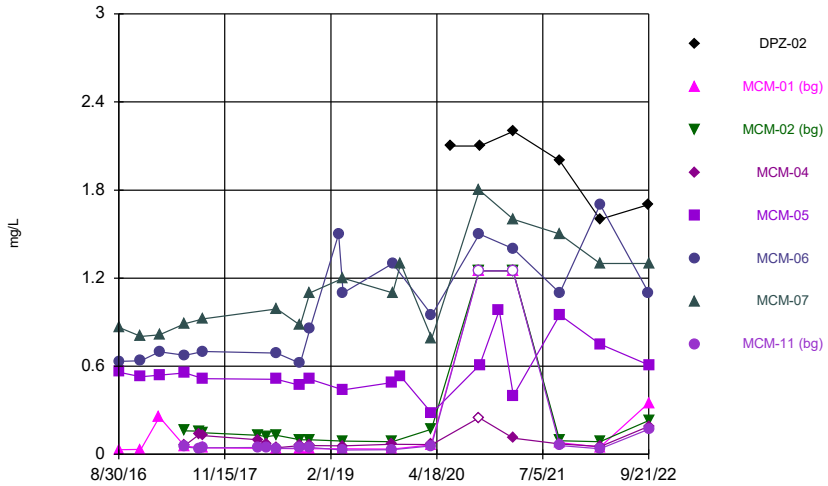


Constituent: Beryllium Analysis Run 12/22/2022 12:03 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

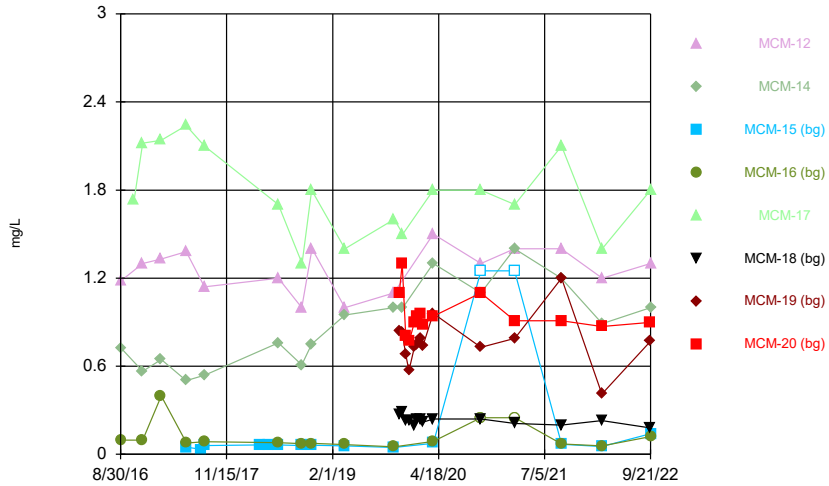
Time Series



Constituent: Boron Analysis Run 12/22/2022 12:03 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

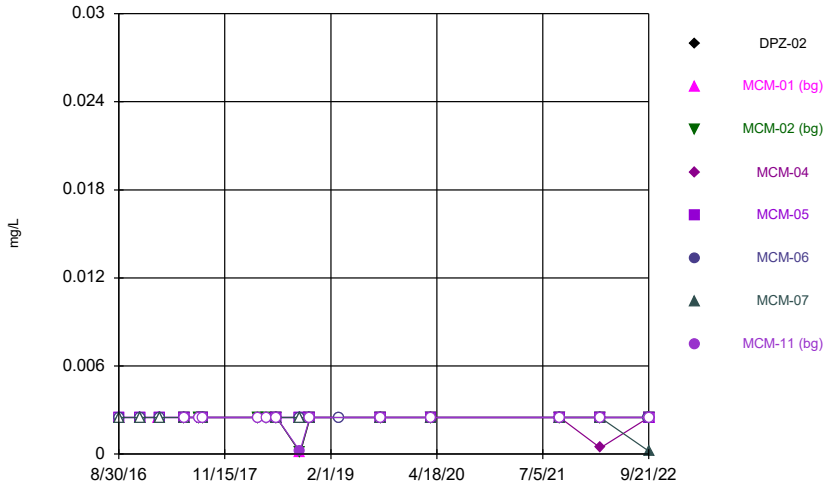
Time Series



Constituent: Boron Analysis Run 12/22/2022 12:03 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

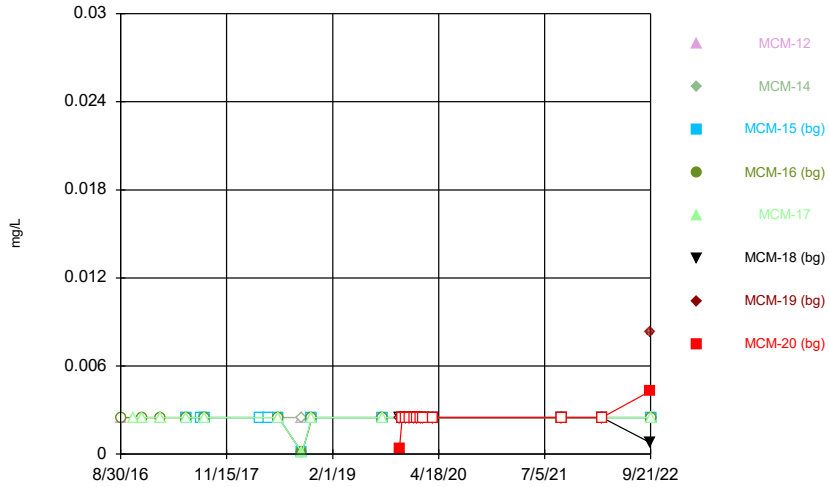
Time Series



Constituent: Cadmium Analysis Run 12/22/2022 12:03 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

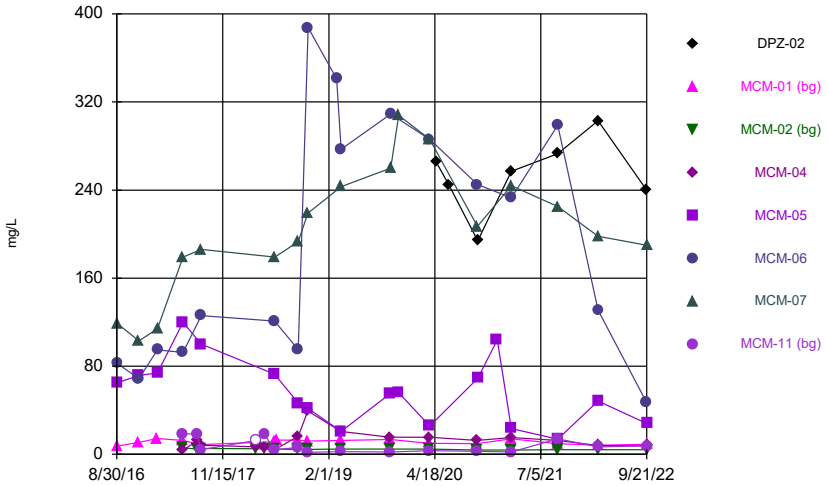
Time Series



Constituent: Cadmium Analysis Run 12/22/2022 12:03 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

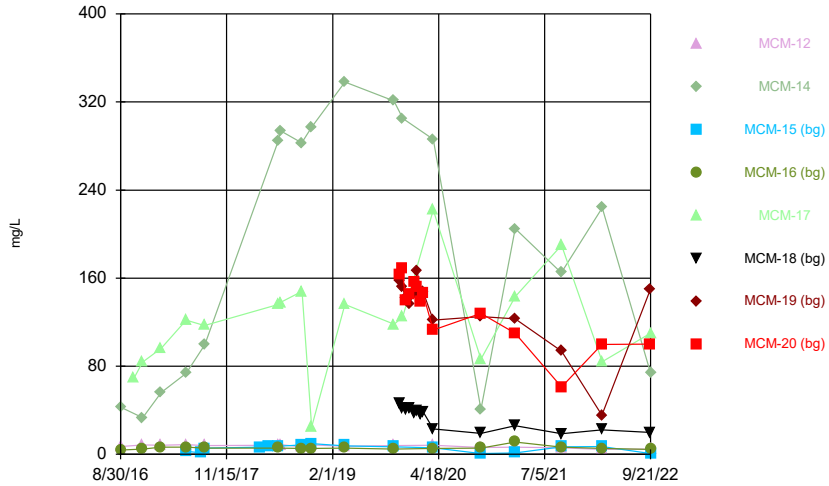
Time Series



Constituent: Calcium Analysis Run 12/22/2022 12:03 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

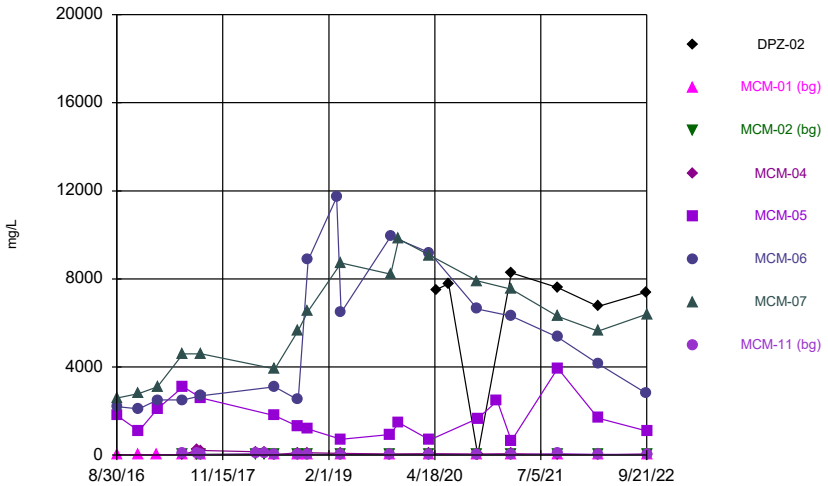
Time Series



Constituent: Calcium Analysis Run 12/22/2022 12:03 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

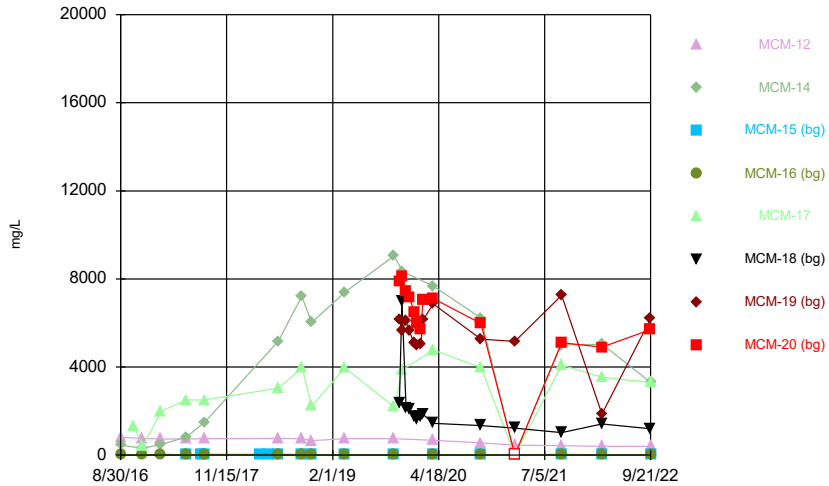
Time Series



Constituent: Chloride Analysis Run 12/22/2022 12:03 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

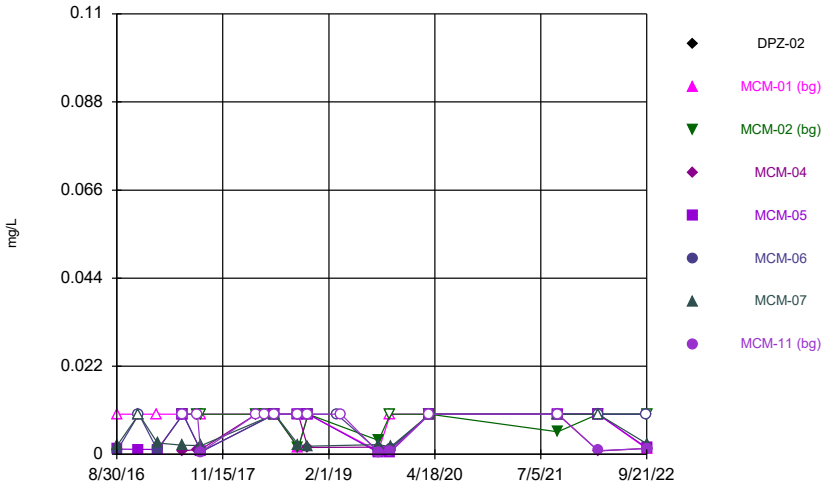
Time Series



Constituent: Chloride Analysis Run 12/22/2022 12:03 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

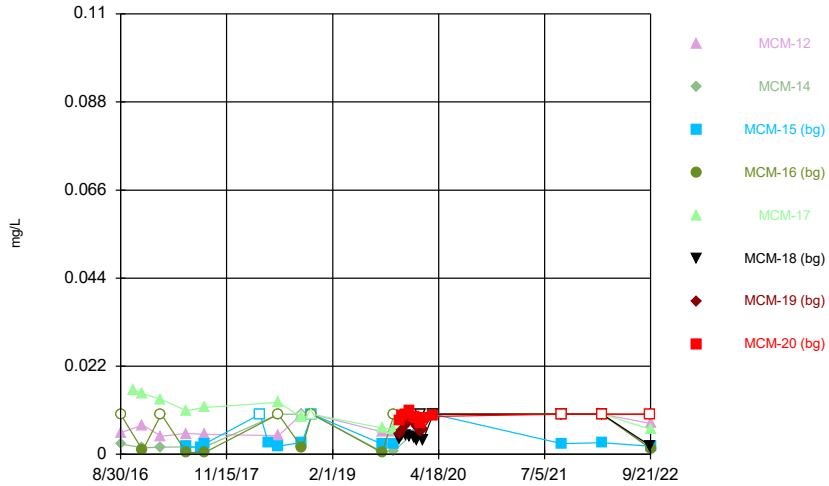
Time Series



Constituent: Chromium Analysis Run 12/22/2022 12:03 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

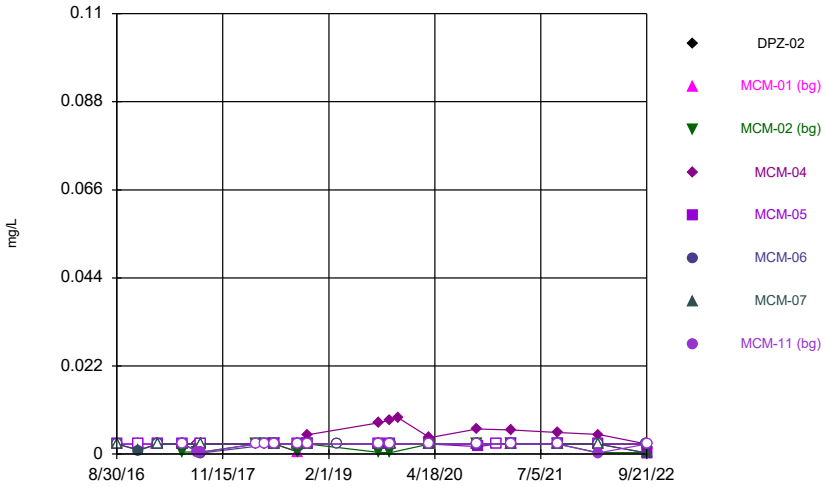
Time Series



Constituent: Chromium Analysis Run 12/22/2022 12:03 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

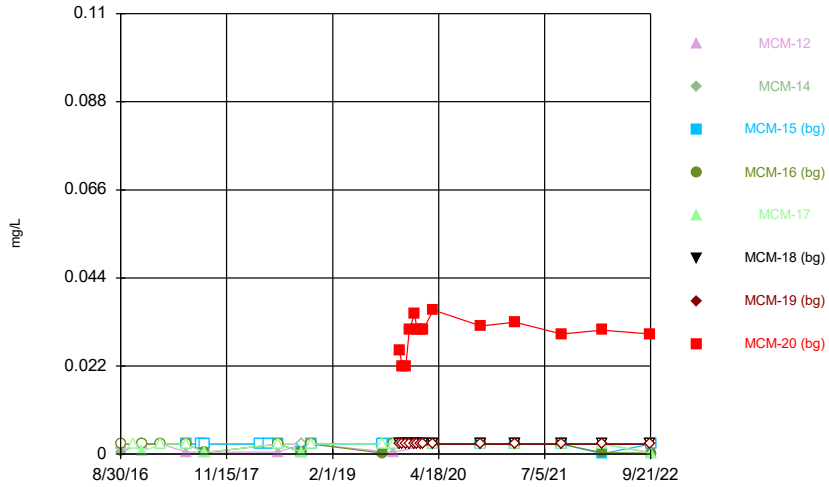
Time Series



Constituent: Cobalt Analysis Run 12/22/2022 12:03 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

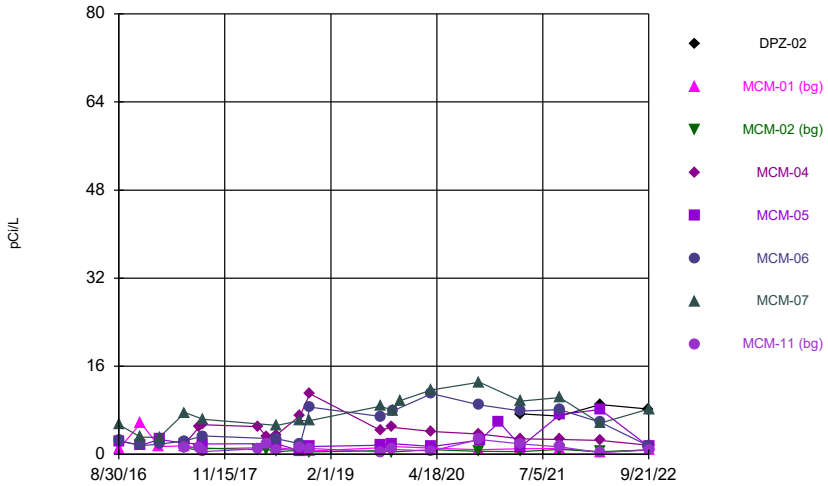
Time Series



Constituent: Cobalt Analysis Run 12/22/2022 12:03 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Time Series

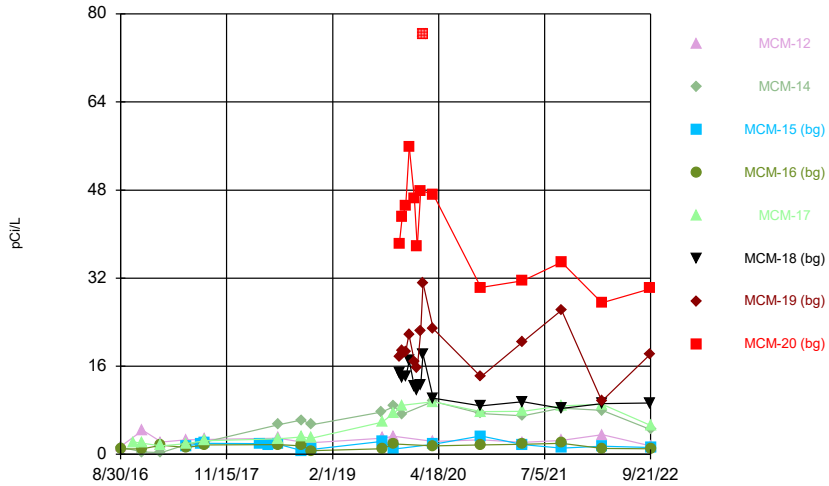


Constituent: Combined Radium 226 + 228 Analysis Run 12/22/2022 12:03 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Time Series

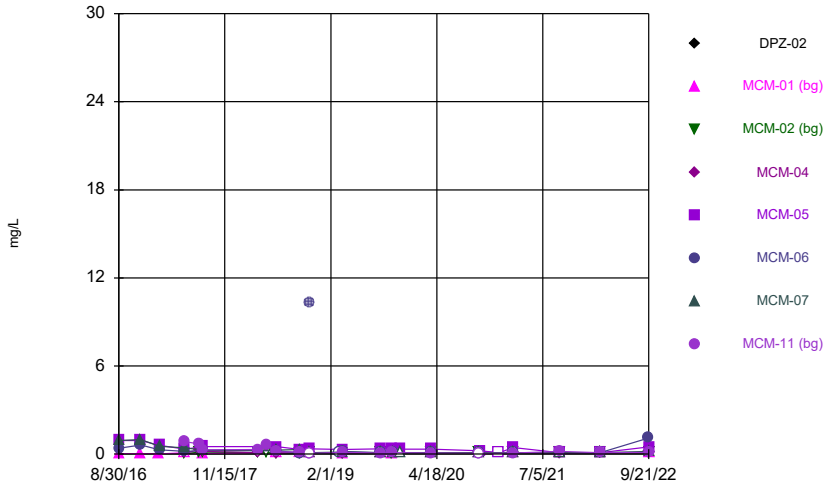


Constituent: Combined Radium 226 + 228 Analysis Run 12/22/2022 12:03 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series

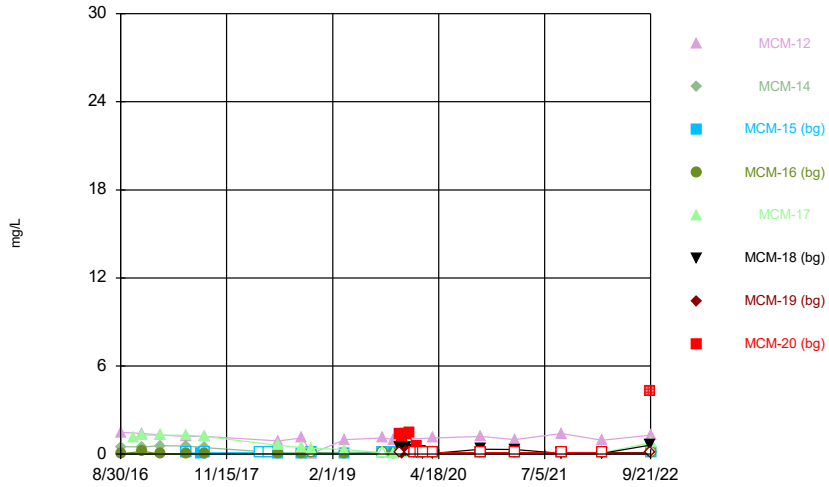


Constituent: Fluoride Analysis Run 12/22/2022 12:03 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series

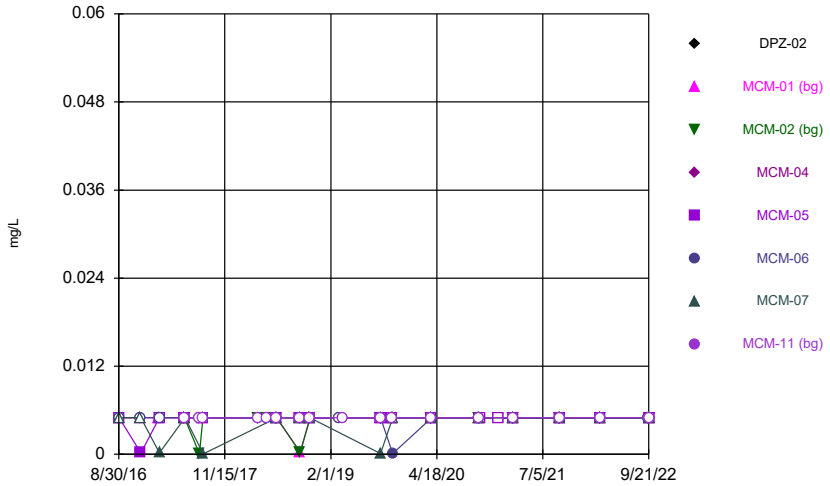


Constituent: Fluoride Analysis Run 12/22/2022 12:03 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

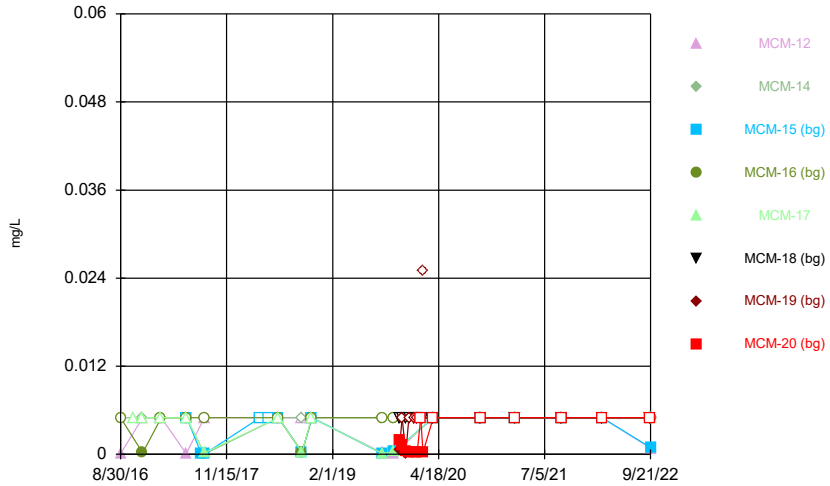
Time Series



Constituent: Lead Analysis Run 12/22/2022 12:03 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

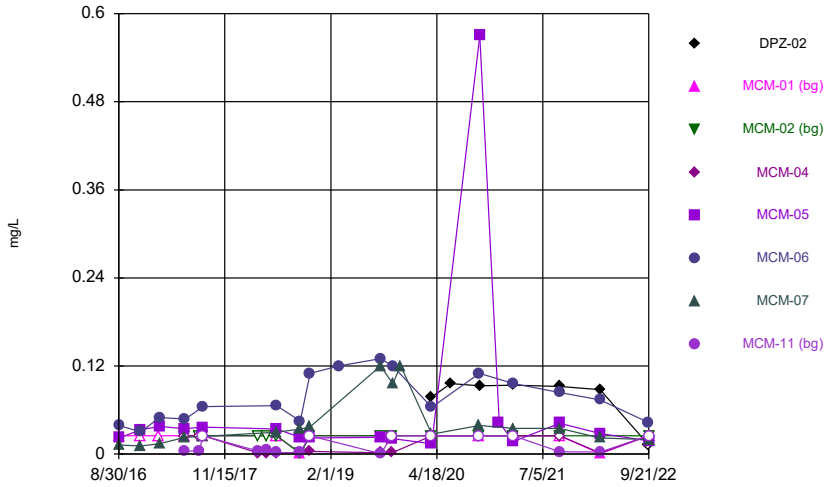
Time Series



Constituent: Lead Analysis Run 12/22/2022 12:03 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

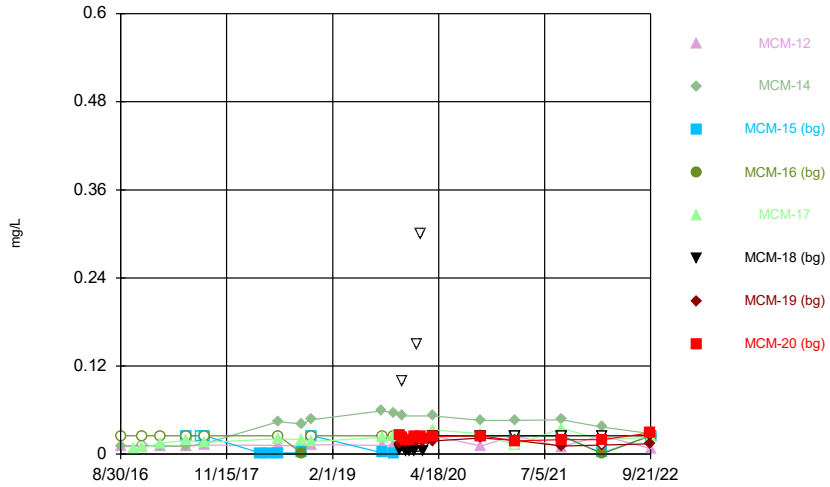
Time Series



Constituent: Lithium Analysis Run 12/22/2022 12:03 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

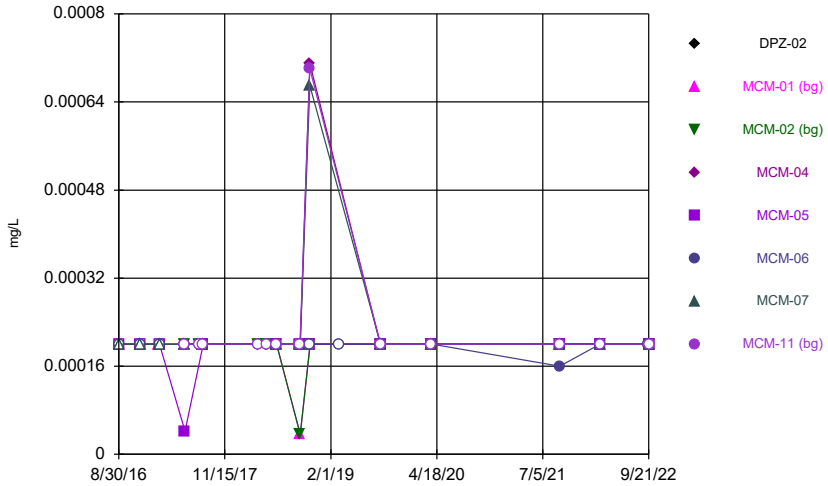
Time Series



Constituent: Lithium Analysis Run 12/22/2022 12:03 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

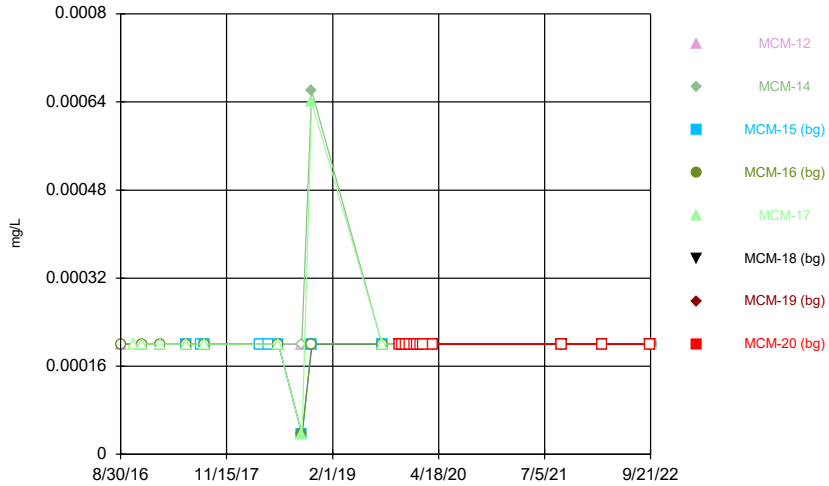
Time Series



Constituent: Mercury Analysis Run 12/22/2022 12:03 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

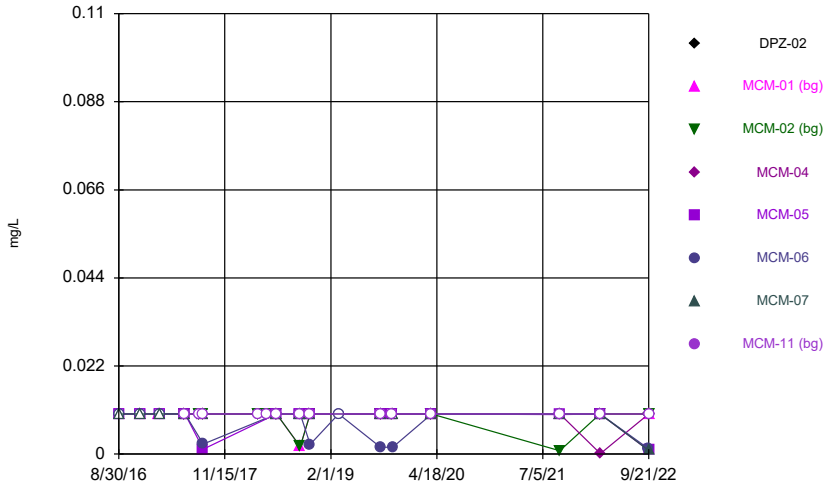
Time Series



Constituent: Mercury Analysis Run 12/22/2022 12:03 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

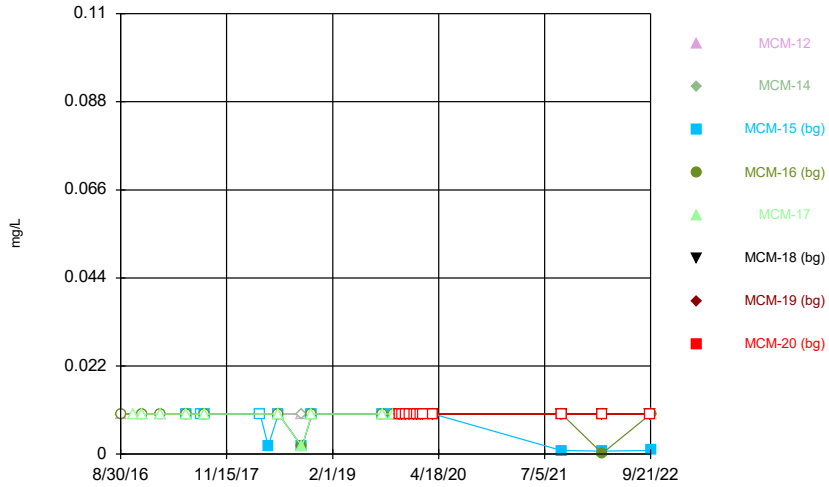
Time Series



Constituent: Molybdenum Analysis Run 12/22/2022 12:03 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

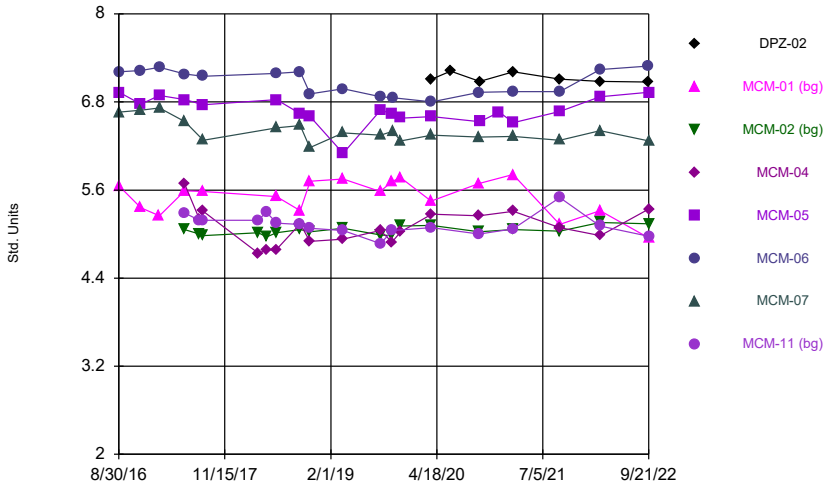
Time Series



Constituent: Molybdenum Analysis Run 12/22/2022 12:03 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Time Series

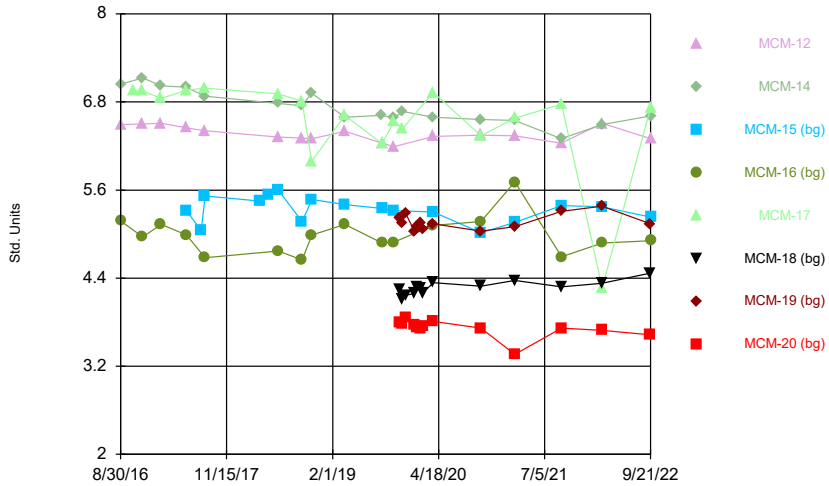


Constituent: pH, field Analysis Run 12/22/2022 12:03 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Time Series

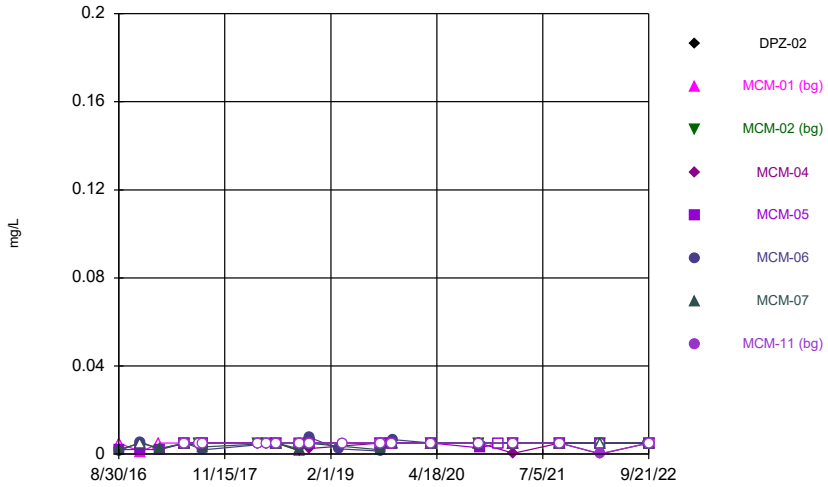


Constituent: pH, field Analysis Run 12/22/2022 12:03 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series

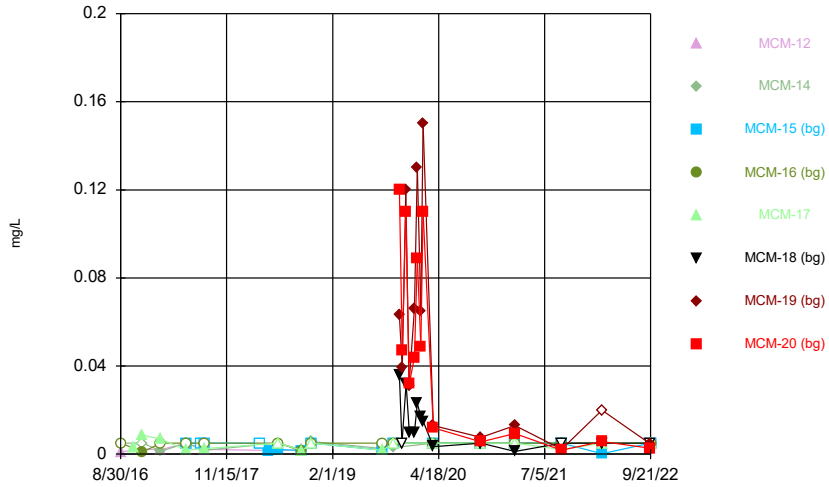


Constituent: Selenium Analysis Run 12/22/2022 12:03 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series

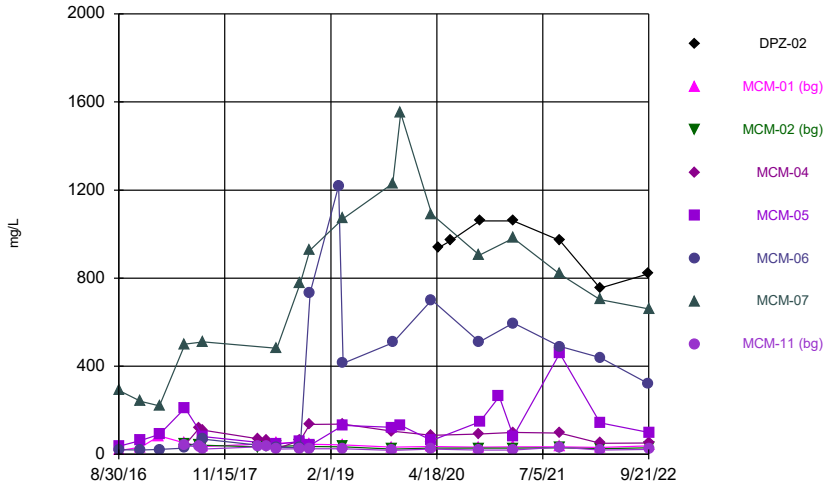


Constituent: Selenium Analysis Run 12/22/2022 12:03 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Time Series



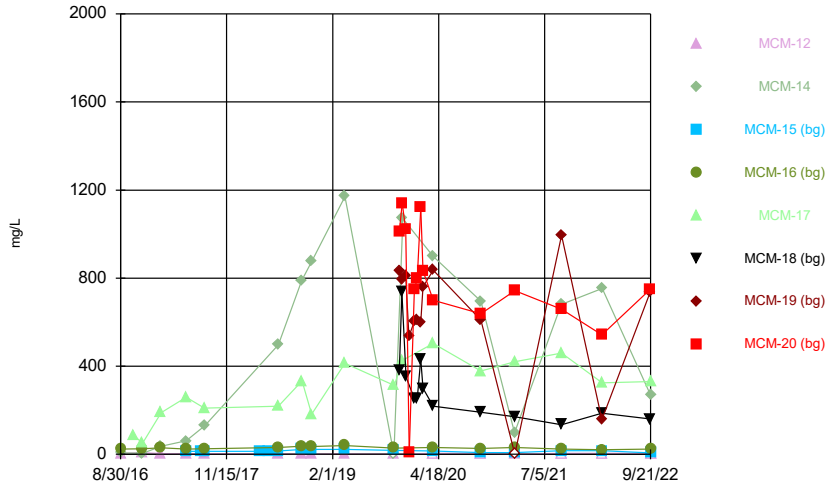
Constituent: Sulfate Analysis Run 12/22/2022 12:04 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Time Series



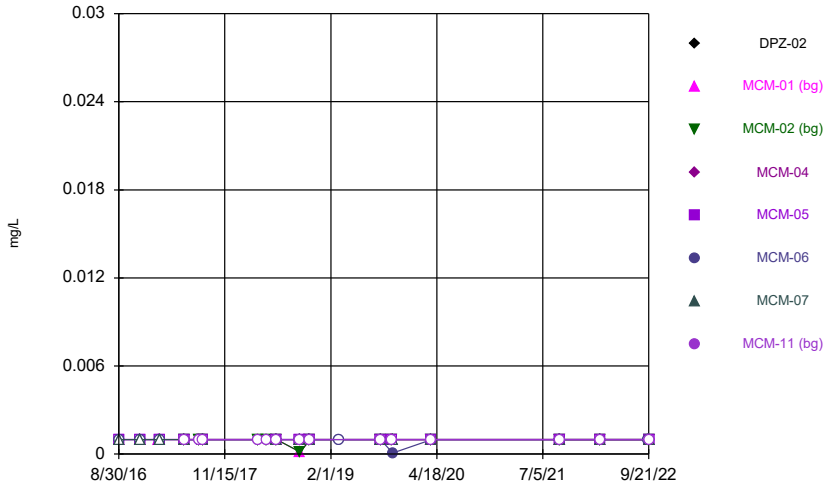
Constituent: Sulfate Analysis Run 12/22/2022 12:04 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Time Series



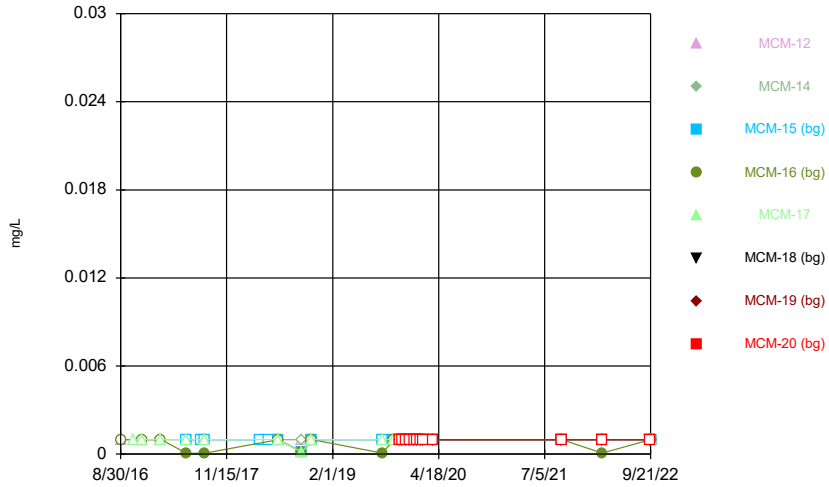
Constituent: Thallium Analysis Run 12/22/2022 12:04 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Time Series

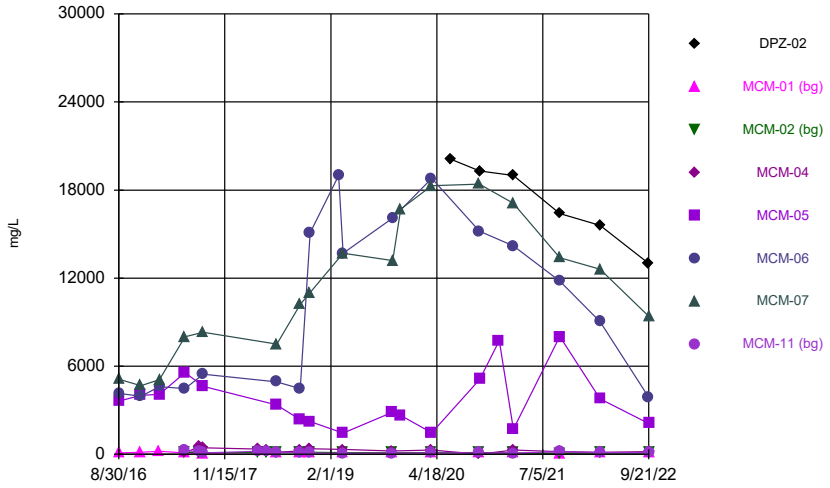


Constituent: Thallium Analysis Run 12/22/2022 12:04 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

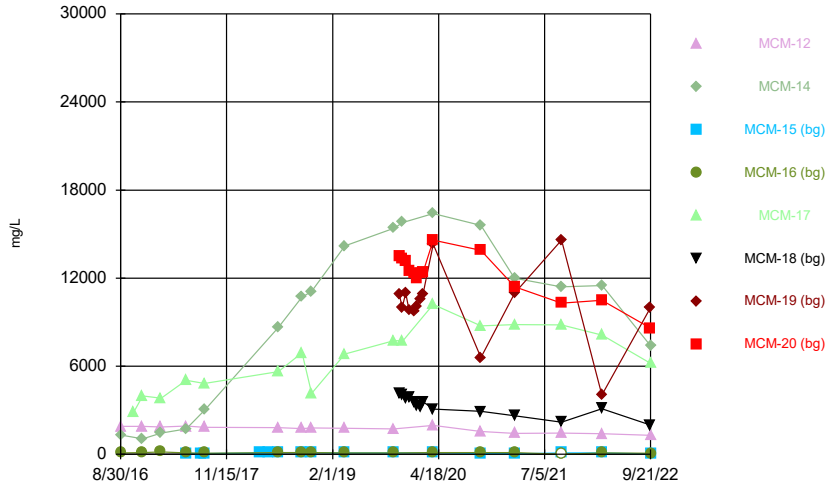
Time Series



Constituent: Total Dissolved Solids Analysis Run 12/22/2022 12:04 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Total Dissolved Solids Analysis Run 12/22/2022 12:04 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series

Constituent: Antimony (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.003						
8/31/2016					<0.003	<0.003	<0.003	
11/30/2016		<0.003			<0.003	<0.003	<0.003	
2/15/2017		<0.003						
2/16/2017					<0.003	<0.003	<0.003	
5/31/2017			<0.003					<0.003
6/1/2017		<0.003		<0.003				
6/2/2017					<0.003	<0.003	<0.003	
8/2/2017			<0.003	<0.003				<0.003
8/15/2017								<0.003
8/16/2017		<0.003	<0.003					
8/17/2017				<0.003	<0.003	<0.003	<0.003	
4/4/2018				<0.003				<0.003
4/5/2018			<0.003					
5/8/2018				<0.003				<0.003
5/9/2018			<0.003					
6/19/2018		<0.003	<0.003					<0.003
6/20/2018				<0.003	<0.003	<0.003		
6/21/2018							<0.003	
9/25/2018								<0.003
9/26/2018		0.00078	0.00078					
9/27/2018				<0.003	<0.003	<0.003	<0.003	
11/6/2018				<0.003			<0.003	<0.003
11/7/2018		<0.003	<0.003		<0.003	<0.003		
3/6/2019						<0.003		
3/25/2019								<0.003
8/27/2019		<0.003		<0.003				
8/28/2019			<0.003		<0.003	0.00098 (J)	<0.003	<0.003
10/15/2019				<0.003				
10/16/2019		<0.003	<0.003		<0.003			<0.003
10/17/2019						0.0009 (J)	<0.003	
3/26/2020		<0.003						
3/27/2020			<0.003					<0.003
3/28/2020				<0.003	<0.003	0.0029 (J)	<0.003	
9/14/2021	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/1/2022	<0.003				<0.003	<0.003		
3/2/2022		<0.003	<0.003				<0.003	<0.003
3/3/2022				<0.003				
9/20/2022	<0.003					<0.003		
9/21/2022		<0.003	<0.003	<0.003	<0.003		<0.003	<0.003

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Antimony (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	<0.003	<0.003		<0.003				
10/25/2016					<0.003			
11/30/2016	<0.003	<0.003		<0.003	<0.003			
2/15/2017	<0.003	<0.003		<0.003	<0.003			
5/31/2017	<0.003	<0.003			<0.003			
6/1/2017				<0.003				
6/2/2017			<0.003					
8/2/2017			<0.003					
8/15/2017	<0.003				<0.003			
8/16/2017		<0.003						
8/17/2017			<0.003	<0.003				
4/4/2018			<0.003					
5/8/2018			<0.003					
6/19/2018	<0.003	<0.003	<0.003		<0.003			
6/20/2018				<0.003				
9/25/2018	<0.003	<0.003						
9/26/2018			0.00078	0.00078	0.00078			
11/6/2018		<0.003			<0.003			
11/7/2018	<0.003		<0.003	<0.003				
8/26/2019		0.0004 (J)						
8/27/2019	<0.003		<0.003	<0.003	<0.003			
10/15/2019	<0.003	<0.003	<0.003					
10/16/2019				<0.003	<0.003			
11/7/2019						<0.003	<0.003	<0.003
11/18/2019						<0.003		
11/19/2019							<0.003	<0.003
12/4/2019							0.00041 (J)	<0.003
12/5/2019						<0.003		
12/17/2019							<0.003	
12/18/2019						<0.003		<0.003
1/8/2020							<0.003	<0.003
1/9/2020						<0.003		
1/21/2020						<0.003	<0.003	<0.003
2/4/2020						<0.003	<0.003	<0.003
2/13/2020						<0.003	<0.003	<0.003
3/27/2020	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
9/13/2021	<0.003	<0.003						
9/14/2021			<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/1/2022							<0.003	<0.003
3/2/2022			<0.003			<0.003		
3/3/2022	<0.003	<0.003		<0.003	<0.003			
9/20/2022						<0.003	<0.003	<0.003
9/21/2022	<0.003	<0.003	<0.003	<0.003	<0.003			

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.005						
8/31/2016					<0.02	0.212	0.0066	
11/30/2016		0.0018 (J)			0.0132	0.129	0.0281	
2/15/2017		0.0022 (J)						
2/16/2017					0.0372	0.257	0.0295	
5/31/2017			<0.0063					0.0259
6/1/2017		0.0036 (J)		0.004 (J)				
6/2/2017					0.0335	0.0559	0.0286	
8/2/2017			0.0011 (J)	0.0028 (J)				0.0188
8/15/2017								0.0117
8/16/2017		0.0038 (J)	<0.0063					
8/17/2017				0.0021 (J)	0.0336	0.458	0.0211	
4/4/2018				0.0023 (J)				0.017
4/5/2018			0.00098 (J)					
5/8/2018				0.0048 (J)				0.016
5/9/2018			0.0014 (J)					
6/19/2018		0.0069	0.0011 (J)					0.011
6/20/2018				0.0099	0.019	0.44		
6/21/2018							0.022 (J)	
9/25/2018								0.011
9/26/2018		0.0081	0.00057					
9/27/2018				0.01	0.0035 (J)	0.27	0.015	
11/6/2018				0.013			0.012	0.0043 (J)
11/7/2018		0.0069	0.00059 (J)		0.002 (J)	0.5		
11/27/2018					0.0016 (J)	0.5	0.011	
3/6/2019						0.49		
3/25/2019								0.0029 (J)
3/26/2019					0.0018 (J)	0.3	0.0078	
7/2/2019				0.015 (J)		0.37	0.027	0.0024 (J)
8/27/2019		0.0079		0.0072				
8/28/2019			<0.0063		0.0019 (J)	0.5	0.011	0.005 (J)
10/15/2019				0.0038 (J)				
10/16/2019		0.01	0.003 (J)		0.0047 (J)			0.0054
10/17/2019						0.34	0.0046 (J)	
11/19/2019			0.00057 (J)					
11/20/2019		0.0064						
3/26/2020		0.0069						
3/27/2020			<0.0063					0.0034 (J)
3/28/2020	<0.1			0.0034 (J)	<0.02	0.3	0.012	
10/12/2020								0.0047 (J)
10/13/2020		0.0061	<0.0063	0.0022 (J)				
10/14/2020						0.43	0.013	
10/15/2020	0.021				0.024			
1/4/2021					0.0072			
3/3/2021		0.016 (J)	<0.0063					0.011 (J)
3/4/2021	0.017 (J)			0.0018 (J)	<0.02	0.35	0.015 (J)	
9/14/2021	0.022	0.0055	0.00067 (J)	0.0047 (J)	0.02 (J)	0.51	0.013 (J)	0.011
3/1/2022	0.015 (J)				0.011 (J)	0.24		
3/2/2022		0.0043	0.00077 (J)				0.009 (J)	0.0071
3/3/2022				0.0041				
9/20/2022	0.021					0.18		
9/21/2022		0.0057 (J)	<0.0063	0.0017 (J)	0.0077		0.01	0.013

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	<0.0063	<0.0063		0.0018 (J)				
10/25/2016					<0.0063			
11/30/2016	<0.0063	<0.0063		<0.0063	0.0072			
2/15/2017	<0.0063	<0.0063		<0.0063	0.0017 (J)			
5/31/2017	0.0007 (J)	0.0008 (J)			0.0018 (J)			
6/1/2017				<0.0063				
6/2/2017			0.0026 (J)					
8/2/2017			0.0047 (J)					
8/15/2017	0.0006 (J)				0.0015 (J)			
8/16/2017		0.0007 (J)						
8/17/2017			0.0028 (J)	<0.0063				
4/4/2018			0.0029 (J)					
5/8/2018			0.0048 (J)					
6/19/2018	0.001 (J)	0.0062 (J)	0.0019 (J)		0.0029 (J)			
6/20/2018				0.00058 (J)				
9/25/2018	0.0011 (J)	0.0031 (J)						
9/26/2018			0.0023 (J)	0.00057	0.0015 (J)			
11/6/2018		0.0014 (J)			<0.0063			
11/7/2018	0.0057		0.0028	0.00057				
8/26/2019		0.0022 (J)						
8/27/2019	0.0011 (J)		0.0041 (J)	0.0019 (J)	0.0024 (J)			
10/15/2019	0.0024 (J)	0.0067	0.0038 (J)					
10/16/2019				0.001 (J)	0.0043 (J)			
11/7/2019						0.0067	0.0094 (J)	0.026
11/18/2019						0.012 (J)		
11/19/2019							0.019 (J)	0.031 (J)
11/21/2019					0.0031 (J)			
12/4/2019							0.016	0.026
12/5/2019						0.0055		
12/17/2019							0.011 (J)	
12/18/2019						0.0031 (J)		0.019 (J)
1/8/2020							0.015 (J)	0.022 (J)
1/9/2020						0.0034 (J)		
1/21/2020						0.0031 (J)	0.015 (J)	0.024 (J)
2/4/2020						<0.005	0.0092 (J)	0.022 (J)
2/13/2020						0.0066	0.021 (J)	0.029
3/27/2020	<0.0063	<0.0063	0.0018 (J)	<0.0063	<0.0063	0.0043 (J)	0.017	0.027
10/12/2020	<0.0063					<0.005		
10/13/2020		<0.0063	0.0042 (J)	<0.0063	<0.0063		0.0089	0.018
3/2/2021	<0.0063	<0.0063	0.021 (J)					
3/3/2021				0.0012 (J)	<0.0063	0.0014 (J)	0.0086 (J)	0.016 (J)
9/13/2021	<0.0063	<0.0063						
9/14/2021			0.0035 (J)	<0.0063	<0.0063	0.0029 (J)	0.018 (J)	0.028
3/1/2022							0.0061 (J)	0.032
3/2/2022			0.0032			0.0064 (J)		
3/3/2022	<0.0063	<0.0063		0.00024 (J)	<0.0063			
9/20/2022						0.0026 (J)	0.021	0.026
9/21/2022	<0.0063	<0.0063	0.0044 (J)	<0.0063	<0.0063			

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Barium (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		0.0443						
8/31/2016					0.0289	0.0498	0.0771	
11/30/2016		0.0524			0.0168	0.0528	0.101	
2/15/2017		0.124						
2/16/2017					0.016	0.0555	0.0865	
5/31/2017			0.127					0.0646
6/1/2017		0.0757		0.0195				
6/2/2017					0.0393 (J)	0.0508	0.123	
8/2/2017			0.121	0.053				0.0533
8/15/2017								0.0247
8/16/2017		0.0522	0.116					
8/17/2017				0.0475	0.0188	0.0596	0.124	
4/4/2018				0.035				0.057
4/5/2018			0.12					
5/8/2018				0.027				0.062
5/9/2018			0.11					
6/19/2018		0.083	0.1					0.031
6/20/2018				0.027	0.014	0.06		
6/21/2018							0.1	
9/25/2018								0.041
9/26/2018		0.073	0.11					
9/27/2018				0.14	0.0097 (J)	0.06	0.12	
11/6/2018				0.31			0.12	0.031
11/7/2018		0.071	0.097		0.0085 (J)	0.19		
3/6/2019						0.16		
3/25/2019								0.036
8/27/2019		0.077		0.083				
8/28/2019			0.1		0.011	0.13	0.4	0.035
10/15/2019				0.082				
10/16/2019		0.074	0.1		0.012			0.036
10/17/2019						0.13	0.35	
3/26/2020		0.07						
3/27/2020			0.095					0.039
3/28/2020				0.039	0.0041 (J)	0.12	0.11	
10/12/2020								0.039
10/13/2020		0.06	0.086	0.055				
10/14/2020						0.14	0.19	
10/15/2020	0.071				0.45			
1/4/2021					0.051			
3/3/2021		0.14	0.21					0.09
3/4/2021	0.096			0.062	0.0082 (J)	0.14	0.2	
9/14/2021	0.082	0.065	0.082	0.043	0.08	0.22	0.2	0.07
3/1/2022	0.074				0.035	0.084		
3/2/2022		0.064	0.08				0.12	0.05
3/3/2022				0.031				
9/20/2022	0.069					0.027		
9/21/2022		0.11	0.076	0.029	0.014		0.12	0.04

Time Series

Constituent: Barium (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	0.108	0.0131		0.0973				
10/25/2016					0.063			
11/30/2016	0.121	0.0105		0.11	0.0628			
2/15/2017	0.111	0.0786		0.0945	0.0102			
5/31/2017	0.131	0.0199			0.061			
6/1/2017				0.121				
6/2/2017			0.0368 (J)					
8/2/2017			0.0355					
8/15/2017	0.126				0.0579			
8/16/2017		0.033						
8/17/2017			0.037	0.121				
4/4/2018			0.039					
5/8/2018			0.037					
6/19/2018	0.13	0.092	0.038		0.076			
6/20/2018				0.13				
9/25/2018	0.12	0.098						
9/26/2018			0.049	0.13	0.099			
11/6/2018		0.1			0.052			
11/7/2018	0.11		0.05	0.12				
8/26/2019		0.12						
8/27/2019	0.14		0.048	0.13	0.11			
10/15/2019	0.14	0.12	0.041					
10/16/2019				0.13	0.14			
11/7/2019						0.12	0.22	0.16
11/18/2019						0.11		
11/19/2019							0.13	0.14
12/4/2019							0.14	0.14
12/5/2019						0.12		
12/17/2019							0.14	
12/18/2019						0.11		0.15
1/8/2020							0.14	0.14
1/9/2020						0.096		
1/21/2020						0.098	0.14	0.14
2/4/2020						0.091	0.13	0.12
2/13/2020						0.098	0.13	0.12
3/27/2020	0.12	0.13	0.041	0.13	0.16	0.076	0.12	0.12
10/12/2020	0.1					0.091		
10/13/2020		0.14	0.024	0.11	0.14		0.12	0.12
3/2/2021	0.1	0.16	0.067					
3/3/2021				0.059	0.17	0.099	0.14	0.12
9/13/2021	0.086	0.16						
9/14/2021			0.05	0.16	0.2 (M1)	0.098	0.13	0.11
3/1/2022							0.14	0.11
3/2/2022			0.04			0.091		
3/3/2022	0.069	0.15		0.13	0.1			
9/20/2022						0.11	0.12	0.12
9/21/2022	0.068	0.059	0.022	0.11	0.089			

Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.0025						
8/31/2016					<0.0025	<0.0025	<0.0025	
11/30/2016		<0.0025			<0.0025	<0.0025	<0.0025	
2/15/2017		<0.0025						
2/16/2017					<0.0025	<0.0025	<0.0025	
5/31/2017			0.0002 (J)					7E-05 (J)
6/1/2017		9E-05 (J)		0.0001 (J)				
6/2/2017					<0.0025	<0.0025	<0.0025	
8/2/2017			0.0002 (J)	0.0003 (J)				0.0001 (J)
8/15/2017								9E-05 (J)
8/16/2017		<0.0025	0.0002 (J)					
8/17/2017				0.0002 (J)	<0.0025	<0.0025	<0.0025	
4/4/2018				<0.0025				<0.0025
4/5/2018			<0.0025					
5/8/2018				0.00025 (J)				0.0001 (J)
5/9/2018			0.00017 (J)					
6/19/2018		0.00011 (J)	0.00017 (J)					0.00011 (J)
6/20/2018				0.00021 (J)	<0.0025	<0.0025		
6/21/2018							<0.0025	
9/25/2018								0.0001 (J)
9/26/2018		9.2E-05 (J)	0.00017 (J)					
9/27/2018				0.00031 (J)	<0.0025	<0.0025	7.4E-05 (J)	
11/6/2018				0.00077 (J)			0.00012 (J)	0.00012 (J)
11/7/2018		0.0001 (J)	0.00015 (J)		5.4E-05 (J)	<0.0025		
3/6/2019						<0.0025		
8/27/2019		9E-05 (J)		0.00032 (J)				
8/28/2019			0.00011 (J)		<0.0025	<0.0025	<0.0025	8.4E-05 (J)
10/15/2019				0.00035 (J)				
10/16/2019		<0.0025	0.00013 (J)		<0.0025			9E-05 (J)
10/17/2019						<0.0025	7.8E-05 (J)	
3/26/2020		<0.0025						
3/27/2020			<0.0025					<0.0025
3/28/2020				<0.0025	<0.0025	<0.0025	<0.0025	
10/12/2020								<0.0025
10/13/2020		<0.0025	<0.0025	<0.0025				
10/14/2020						<0.0025	<0.0025	
10/15/2020	<0.0025				<0.0025			
1/4/2021					<0.0025			
3/3/2021		<0.0025	<0.0025					<0.0025
3/4/2021	<0.0025			<0.0025	<0.0025	<0.0025	<0.0025	
9/14/2021	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
3/1/2022	<0.0025				<0.0025	<0.0025		
3/2/2022		9.6E-05 (J)	0.00015				<0.0025	0.00011
3/3/2022				0.00025				
9/20/2022	<0.0025					<0.0025		
9/21/2022		<0.0025	<0.0025	<0.0025	<0.0025		<0.0025	<0.0025

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	0.0003 (J)	<0.0025		0.0001 (J)				
10/25/2016					0.0004 (J)			
11/30/2016	0.0004 (J)	<0.0025		0.0002 (J)	0.0003 (J)			
2/15/2017	0.0004 (J)	<0.0025		<0.0025	<0.002			
5/31/2017	0.0005 (J)	0.0001 (J)			0.0002 (J)			
6/1/2017				0.0002 (J)				
6/2/2017			0.0001 (J)					
8/2/2017			<0.0025					
8/15/2017	0.0005 (J)				0.0002 (J)			
8/16/2017		0.0002 (J)						
8/17/2017			0.0001 (J)	0.0002 (J)				
4/4/2018			<0.0025					
5/8/2018			0.00031 (J)					
6/19/2018	0.00065 (J)	<0.0025	0.00034 (J)		0.00032 (J)			
6/20/2018				0.00024 (J)				
9/25/2018	0.00066 (J)	5E-05 (J)						
9/26/2018			0.00039 (J)	0.00019 (J)	0.00024 (J)			
11/6/2018		9.7E-05 (J)			0.00026 (J)			
11/7/2018	0.00058 (J)		0.00041 (J)	0.00019 (J)				
8/26/2019		0.0001 (J)						
8/27/2019	0.0009 (J)		0.00042 (J)	0.00021 (J)	0.00018 (J)			
10/15/2019	0.00079 (J)	<0.0025	0.00034 (J)					
10/16/2019				0.00014 (J)	0.00014 (J)			
11/7/2019						0.007	0.0068 (J)	0.021
11/18/2019						0.0063 (J)		
11/19/2019							0.014 (J)	0.015 (J)
12/4/2019							0.01	0.011
12/5/2019						0.0045		
12/17/2019							0.012	
12/18/2019						0.0048		0.012
1/8/2020							0.015 (J)	0.017
1/9/2020						0.0043		
1/21/2020						0.0041 (J)	0.012 (J)	0.015
2/4/2020						0.0049 (J)	0.015 (J)	0.017 (J)
2/13/2020						0.0043	0.013 (J)	0.015 (J)
3/27/2020	<0.005	<0.0025	<0.0025	<0.0025	<0.002	0.004	0.011	0.018
10/12/2020	0.001 (J)					0.0041		
10/13/2020		<0.0025	<0.0025	<0.0025	<0.002		0.015	0.017
3/2/2021	<0.005	<0.0025	<0.0025					
3/3/2021				<0.0025	<0.002	0.003	0.015	0.014
9/13/2021	0.0011	<0.0025						
9/14/2021			0.00034 (J)	0.00062	<0.002	0.0031	0.0062	0.016
3/1/2022							0.0057	0.016
3/2/2022			0.00032			0.0037		
3/3/2022	0.0012 (J)	<0.0025		0.00023	<0.002			
9/20/2022						0.003	0.017	0.02
9/21/2022	0.0011 (J)	<0.0025	<0.0025	<0.0025	0.00029 (J)			

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Boron (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		0.0325 (J)						
8/31/2016					0.56	0.632	0.863	
11/30/2016		0.0334 (J)			0.529	0.637	0.804	
2/15/2017		0.254						
2/16/2017					0.539	0.698	0.815	
5/31/2017			0.161					0.0521
6/1/2017		0.0564		0.0608				
6/2/2017					0.555	0.674	0.891	
8/2/2017			0.158	0.137				0.0392 (J)
8/15/2017								0.0448
8/16/2017		0.0435	0.148					
8/17/2017				0.128	0.516	0.7	0.922	
4/4/2018				0.1				0.046
4/5/2018			0.13					
5/8/2018				0.074				0.048
5/9/2018			0.12					
6/19/2018		0.04 (J)	0.13					0.04
6/20/2018				0.045	0.51	0.69		
6/21/2018							0.99	
9/25/2018								0.043
9/26/2018		0.038 (J)	0.1					
9/27/2018				0.06	0.47	0.62	0.88	
11/6/2018				0.06			1.1	0.046
11/7/2018		0.037 (J)	0.1		0.51	0.86		
3/6/2019						1.5		
3/24/2019					0.44	1.1	1.2	
3/25/2019		0.038 (J)	0.091	0.058				0.03 (J)
10/15/2019				0.068				
10/16/2019		0.036 (J)	0.085		0.49			0.032 (J)
10/17/2019						1.3	1.1	
11/20/2019					0.53		1.3	
3/26/2020		0.064 (J)						
3/27/2020			0.17 (J)					0.058 (J)
3/28/2020				0.067 (J)	0.28 (J)	0.95	0.79	
6/16/2020	2.1							
10/12/2020								<2.5
10/13/2020		<2.5	<2.5	<0.5				
10/14/2020						1.5	1.8	
10/15/2020	2.1				0.61			
1/4/2021					0.98			
3/3/2021		<2.5	<2.5					<2.5
3/4/2021	2.2 (J)			0.11 (J)	0.4 (J)	1.4 (J)	1.6 (J)	
9/14/2021	2	0.079 (J)	0.093 (J)	0.07 (J)	0.95 (J)	1.1	1.5	0.06 (J)
3/1/2022	1.6 (J)				0.75 (J)	1.7		
3/2/2022		0.048 (J)	0.086				1.3	0.038 (J)
3/3/2022				0.053				
9/20/2022	1.7					1.1		
9/21/2022		0.35 (J)	0.23 (J)	0.19 (J)	0.61		1.3	0.17 (J)

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Boron (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	1.18	0.726		0.0972 (J)				
10/25/2016					1.73			
11/30/2016	1.3	0.565		0.0964	2.12			
2/15/2017	1.33	0.647		0.398	2.14			
5/31/2017	1.38	0.503			2.24			
6/1/2017				0.0776				
6/2/2017			0.0495					
8/2/2017			0.0333 (J)					
8/15/2017	1.14				2.1			
8/16/2017		0.539						
8/17/2017			0.0593	0.0853				
4/4/2018			0.065					
5/8/2018			0.062					
6/19/2018	1.2	0.76	0.064		1.7			
6/20/2018				0.079				
9/25/2018	1	0.61						
9/26/2018			0.06	0.072	1.3			
11/6/2018		0.75			1.8			
11/7/2018	1.4		0.062 (J)	0.074				
3/24/2019	1	0.95			1.4			
3/25/2019			0.057	0.067				
10/15/2019	1.1	1	0.046					
10/16/2019				0.051	1.6			
11/7/2019						0.27	0.84	1.1
11/18/2019						0.29 (J)		
11/19/2019							0.83	1.3
11/21/2019		1			1.5			
12/4/2019							0.68	0.81
12/5/2019						0.23		
12/17/2019							0.57	
12/18/2019						0.23		0.77
1/8/2020							0.73	0.9
1/9/2020						0.2		
1/21/2020						0.24 (J)	0.75	0.94
2/4/2020						0.24 (J)	0.79 (J)	0.96 (J)
2/13/2020						0.22	0.74	0.88
3/27/2020	1.5	1.3	0.076 (J)	0.088 (J)	1.8	0.24 (J)	0.96	0.94
10/12/2020	1.3					0.24 (J)		
10/13/2020		1.1	<2.5	<0.5	1.8		0.73	1.1
3/2/2021	1.4 (J)	1.4 (J)	<2.5					
3/3/2021				<0.5	1.7 (J)	0.21 (J)	0.79 (J)	0.91 (J)
9/13/2021	1.4 (M1)	1.2						
9/14/2021			0.068 (J)	0.071 (J)	2.1 (M1)	0.2 (J)	1.2	0.91 (J)
3/1/2022							0.41 (J)	0.87 (J)
3/2/2022			0.054			0.23 (J)		
3/3/2022	1.2	0.89 (J)		0.057	1.4			
9/20/2022						0.18 (J)	0.77	0.9
9/21/2022	1.3	1	0.14 (J)	0.12 (J)	1.8			

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.0025						
8/31/2016					<0.0025	<0.0025	<0.0025	
11/30/2016		<0.0025			<0.0025	<0.0025	<0.0025	
2/15/2017		<0.0025						
2/16/2017					<0.0025	<0.0025	<0.0025	
5/31/2017			<0.0025					<0.0025
6/1/2017		<0.0025		<0.0025				
6/2/2017					<0.0025	<0.0025	<0.0025	
8/2/2017			<0.0025	<0.0025				<0.0025
8/15/2017								<0.0025
8/16/2017		<0.0025	<0.0025					
8/17/2017				<0.0025	<0.0025	<0.0025	<0.0025	
4/4/2018				<0.0025				<0.0025
4/5/2018			<0.0025					
5/8/2018				<0.0025				<0.0025
5/9/2018			<0.0025					
6/19/2018		<0.0025	<0.0025					<0.0025
6/20/2018				<0.0025	<0.0025	<0.0025		
6/21/2018							<0.0025	
9/25/2018								0.0002 (J)
9/26/2018		9.3E-05	9.3E-05					
9/27/2018				<0.0025	<0.0025	<0.0025	<0.0025	
11/6/2018				<0.0025			<0.0025	<0.0025
11/7/2018		<0.0025	<0.0025		<0.0025	<0.0025		
3/6/2019						<0.0025		
8/27/2019		<0.0025		<0.0025				
8/28/2019			<0.0025		<0.0025	<0.0025	<0.0025	<0.0025
3/26/2020		<0.0025						
3/27/2020			<0.0025					<0.0025
3/28/2020				<0.0025	<0.0025	<0.0025	<0.0025	
9/14/2021	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
3/1/2022	<0.0025				<0.0025	<0.0025		
3/2/2022		<0.0025	<0.0025				<0.0025	<0.0025
3/3/2022				0.00043				
9/20/2022	<0.0025					<0.0025		
9/21/2022		<0.0025	<0.0025	<0.0025	<0.0025		0.0002 (J)	<0.0025

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	<0.0025	<0.0025		<0.0025				
10/25/2016					<0.0025			
11/30/2016	<0.0025	<0.0025		<0.0025	<0.0025			
2/15/2017	<0.0025	<0.0025		<0.0025	<0.0025			
5/31/2017	<0.0025	<0.0025			<0.0025			
6/1/2017				<0.0025				
6/2/2017			<0.0025					
8/2/2017			<0.0025					
8/15/2017	<0.0025				<0.0025			
8/16/2017		<0.0025						
8/17/2017			<0.0025	<0.0025				
4/4/2018			<0.0025					
5/8/2018			<0.0025					
6/19/2018	<0.0025	<0.0025	<0.0025		<0.0025			
6/20/2018				<0.0025				
9/25/2018	<0.0025	<0.0025						
9/26/2018			9.3E-05	9.3E-05	9.3E-05			
11/6/2018		<0.0025			<0.0025			
11/7/2018	<0.0025		<0.0025	<0.0025				
8/26/2019		<0.0025						
8/27/2019	<0.0025		<0.0025	<0.0025	<0.0025			
11/7/2019						<0.0025	<0.0025	0.00034 (J)
11/18/2019						<0.0025		
11/19/2019							<0.0025	<0.0025
12/4/2019							<0.0025	<0.0025
12/5/2019						<0.0025		
12/17/2019							<0.0025	
12/18/2019						<0.0025		<0.0025
1/8/2020							<0.0025	<0.0025
1/9/2020						<0.0025		
1/21/2020						<0.0025	<0.0025	<0.0025
2/4/2020						<0.0025	<0.0025	<0.0025
2/13/2020						<0.0025	<0.0025	<0.0025
3/27/2020	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
9/13/2021	<0.0025	<0.0025						
9/14/2021			<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
3/1/2022							<0.0025	<0.0025
3/2/2022			<0.0025			<0.0025		
3/3/2022	<0.0025	<0.0025		<0.0025	<0.0025			
9/20/2022						0.00078 (J)	0.0083 (o)	0.0043
9/21/2022	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025			

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Calcium (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		7.3						
8/31/2016					65	82.8	119	
11/30/2016		10.8			71.7	68.7	103	
2/15/2017		14.3						
2/16/2017					74	94.8	114	
5/31/2017			5.9					18.6
6/1/2017		12.7 (J)		3.65				
6/2/2017					120	92.5	179	
8/2/2017			4.69	12.4				18.5
8/15/2017								4.09
8/16/2017		8.7	5.25					
8/17/2017				8.17	100	126	186	
4/4/2018				6.8				<25
4/5/2018			5					
5/8/2018				5.7				18.4 (J)
5/9/2018			4.7					
6/19/2018		11.6 (J)	4.8					4.3
6/20/2018				4.3	72.8	121		
6/21/2018							179	
6/28/2018		13						
9/25/2018								6.2 (D)
9/26/2018		12.8 (J)	4.6					
9/27/2018				16.4 (J)	46.6	95.1	193	
11/6/2018				39.5			219	1.8
11/7/2018		11.9	4.6		41.8	387.5 (D)		
3/6/2019						341		
3/24/2019					20.9 (J)	277	243	
3/25/2019		12.6 (J)	4.7	20.8 (J)				2.5 (D)
10/15/2019				15.5				
10/16/2019		13.6	4.9		55.2			2.2
10/17/2019						309	260	
11/20/2019					55.8		308	
3/26/2020		10.1						
3/27/2020			4.9					3.3
3/28/2020				15.5	25.8	286	286	
4/23/2020	266							
6/16/2020	245							
10/12/2020								2.8
10/13/2020		9.8	3.8	12.5				
10/14/2020						245	207	
10/15/2020	194				69.1			
1/4/2021					104			
3/3/2021		14	4					
3/4/2021	257			15.1	23.4	233	244	2.1
9/14/2021	273	9.6	4.2	12.5	13.9	299	225	14
3/1/2022	303				48.4	131		
3/2/2022		8.2	4.1				198	6.8
3/3/2022				8				
9/20/2022	240					47		
9/21/2022		9.2	4.3	7.8	28		190	7.6

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Calcium (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	7.05	42.8		4.02				
10/25/2016					69.4			
11/30/2016	8.69	33.2		4.87	83.9			
2/15/2017	8.34	56.1		6.61	96.3			
5/31/2017	8.85	73.6			122			
6/1/2017				6.42				
6/2/2017			2.77					
8/2/2017			1.27					
8/15/2017	8.05				117			
8/16/2017		99.6						
8/17/2017			5.53	5.62				
4/4/2018			6.5					
5/8/2018			6.7					
6/19/2018	8.3	285	7.4		136			
6/20/2018				5.7				
6/28/2018	8.9	294			138			
9/25/2018	6.8	283						
9/26/2018			8.5 (J)	5.3	148			
11/6/2018		297			24.7			
11/7/2018	8.5		9.8	5.3				
3/24/2019	7.4	338			136			
3/25/2019			7.8	5.7				
10/15/2019	7.9	321	6.7					
10/16/2019				4.8	118			
11/7/2019						46.2	158	163
11/18/2019						41.8		
11/19/2019							152	169
11/21/2019		305			125			
12/4/2019							142	140
12/5/2019						40.5		
12/17/2019							136	
12/18/2019						42		145
1/8/2020							147	157
1/9/2020						37.1		
1/21/2020						40.1	167	152
2/4/2020						36.2	142	139
2/13/2020						38.9	148	146
3/27/2020	8.3	286	5.9	5.4	222	23.2	122	113
10/12/2020	6.1					19.1		
10/13/2020		40.9	0.83	5.7	86.4		125	128
3/4/2021	6.5	205	1.4	11.2	143	26	123	110
9/13/2021	6	165						
9/14/2021			6.7	6.5	190	18.8	93.6	61.1
3/1/2022							35.5	99.8
3/2/2022			7.2			22.3		
3/3/2022	4.6	224		5.4	84			
9/20/2022						20	150	100
9/21/2022	4.7	74	0.83	4.6	110			

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		9.7						
8/31/2016					1800	2200	2600	
11/30/2016		19			1100	2100	2800	
2/15/2017		21						
2/16/2017					2100	2500	3100	
5/31/2017			39					98
6/1/2017		12		22				
6/2/2017					3100	2500	4600	
8/2/2017			42	230				57
8/15/2017								15
8/16/2017		14	41					
8/17/2017				210	2600	2700	4600	
4/4/2018				156				69
4/5/2018			40.2					
5/8/2018				140				72.3
5/9/2018			40.6					
6/19/2018		24.4	37.7					17.3
6/20/2018				27.5	1800	3100		
6/21/2018							3920	
9/25/2018								31.3
9/26/2018		23.4	33.4					
9/27/2018				101	1300	2510 (D)	5660 (D)	
11/6/2018				107			6520	9.8
11/7/2018		21.8	30.7		1180	8860		
3/6/2019						11700		
3/24/2019					717	6470	8720	
3/25/2019		19.4	33.5	78.5				12.9
10/15/2019				46				
10/16/2019		21.4	33.1		941 (D)			12.2
10/17/2019						9930	8210	
11/20/2019					1480		9810	
3/26/2020		23						
3/27/2020			32.9					14.5
3/28/2020				71.4	693	9190	9070	
4/23/2020	7500							
6/16/2020	7780							
10/12/2020								13.9
10/13/2020		13.5	25.7	54.4				
10/14/2020						6630	7910	
10/15/2020	<1				1660			
1/4/2021					2460			
3/3/2021		13.6	20.5					9.4
3/4/2021	8280			69.6	652	6310	7540	
9/14/2021	7610	16.7	21.8	28.5	3940	5360	6300	62.8
3/1/2022	6750				1680	4150		
3/2/2022		13.4	20.6				5630	28.4
3/3/2022				12.2				
9/20/2022	7400					2800		
9/21/2022		17	23	47	1100		6400	32

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	800	450		26				
10/25/2016					1300			
11/30/2016	760	310		27	400			
2/15/2017	740	490		30	2000			
5/31/2017	740	820			2500			
6/1/2017				27				
6/2/2017			11					
8/2/2017			3.2					
8/15/2017	750				2500			
8/16/2017		1500						
8/17/2017			12	32				
4/4/2018			13.4					
5/8/2018			13.2					
6/19/2018	760	5180	13.7		3050			
6/20/2018				30				
9/25/2018	752 (D)	7220						
9/26/2018			18.5	28.4	3965 (D)			
11/6/2018		6020			2230			
11/7/2018	665		20.2	25.1				
3/24/2019	744	7400			3960			
3/25/2019			19.7	21.8				
10/15/2019	744	9050	17.1					
10/16/2019				20	2181.5 (D)			
11/7/2019						2360	6170	7880
11/18/2019						6970		
11/19/2019							5650	8130
11/21/2019		8330			3890			
12/4/2019							6100	7410
12/5/2019						2130		
12/17/2019							5660	
12/18/2019						2090		7170
1/8/2020							5070	6480
1/9/2020						1750		
1/21/2020						1630	5010	6000
2/4/2020						1760	5030	5700
2/13/2020						1850	6140	7060
3/27/2020	675	7680	14.1	23.6	4770	1450	6870	7110
10/12/2020	552					1340		
10/13/2020		6230	3.8	23.3	3980		5260	5980
3/2/2021	459	<1	4.2					
3/3/2021				27.6	<1	1230	5170	<1
9/13/2021	433	5010						
9/14/2021			13.6	30	4090	1020	7250	5100
3/1/2022							1870	4900
3/2/2022			14.3			1420		
3/3/2022	394	5040		26.5	3540			
9/20/2022						1200	6200	5700
9/21/2022	400	3300	3.3	17	3300			

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Chromium (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.01						
8/31/2016					0.0013 (J)	0.001 (J)	0.0022 (J)	
11/30/2016		<0.01			0.0012 (J)	<0.01	<0.01	
2/15/2017		<0.01						
2/16/2017					0.0012 (J)	0.0011 (J)	0.0028 (J)	
5/31/2017			<0.01					<0.01
6/1/2017		<0.01		0.0008 (J)				
6/2/2017					<0.01	<0.01	0.0023 (J)	
8/2/2017			<0.01	0.0012 (J)				<0.01
8/15/2017								0.0006 (J)
8/16/2017		<0.01	<0.01					
8/17/2017				0.0013 (J)	0.0007 (J)	0.0007 (J)	0.0022 (J)	
4/4/2018				<0.01				<0.01
4/5/2018			<0.01					
5/8/2018				<0.01				<0.01
5/9/2018			<0.01					
6/19/2018		<0.01	<0.01					<0.01
6/20/2018				<0.01	<0.01	<0.01		
6/21/2018							<0.01	
9/25/2018								<0.01
9/26/2018		0.0016	0.0016					
9/27/2018				<0.01	<0.01	<0.01	0.0024 (J)	
11/6/2018				0.0017 (J)			0.002 (J)	<0.01
11/7/2018		<0.01	<0.01		<0.01	<0.01		
3/6/2019						<0.01		
3/25/2019								<0.01
8/27/2019		0.00079 (J)		0.0018 (J)				
8/28/2019			0.0035 (J)		0.00047 (J)	0.00085 (J)	0.0024 (J)	0.00053 (J)
10/15/2019				0.0012 (J)				
10/16/2019		<0.01	<0.01		0.00057 (J)			0.00072 (J)
10/17/2019						0.0015 (J)	0.0019 (J)	
3/26/2020		<0.01						
3/27/2020			<0.01					<0.01
3/28/2020				<0.01	<0.01	<0.01	<0.01	
9/14/2021	<0.01	<0.01	0.0056	<0.01	<0.01	<0.01	<0.01	<0.01
3/1/2022	<0.01				<0.01	<0.01		
3/2/2022		<0.01	<0.01				<0.01	0.00094 (J)
3/3/2022				0.00085 (J)				
9/20/2022	<0.01					<0.01		
9/21/2022		0.0014 (J)	<0.01	0.0015 (J)	0.0016 (J)		0.0027 (J)	0.0015 (J)

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Chromium (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	0.0054 (J)	0.0026 (J)		<0.01				
10/25/2016					0.016			
11/30/2016	0.0073 (J)	0.0016 (J)		0.001 (J)	0.0151 (J)			
2/15/2017	0.0045 (J)	0.0018 (J)		<0.01	0.0137			
5/31/2017	0.0052 (J)	0.0019 (J)			0.0109			
6/1/2017				0.0004 (J)				
6/2/2017			0.0019 (J)					
8/2/2017			0.0017 (J)					
8/15/2017	0.005 (J)				0.0117			
8/16/2017		0.0019 (J)						
8/17/2017			0.0027 (J)	0.0005 (J)				
4/4/2018			<0.01					
5/8/2018			0.0029 (J)					
6/19/2018	0.0047 (J)	<0.01	0.002 (J)		0.013 (J)			
6/20/2018				<0.01				
9/25/2018	<0.01	<0.01						
9/26/2018			0.003 (J)	0.0016	0.0092 (J)			
11/6/2018		<0.01			<0.01			
11/7/2018	<0.01		<0.01	<0.01				
8/26/2019		0.00071 (J)						
8/27/2019	0.0056 (J)		0.0026 (J)	0.00043 (J)	0.0066 (J)			
10/15/2019	0.0057 (J)	0.00076 (J)	0.0026 (J)					
10/16/2019				<0.01	0.0063 (J)			
11/7/2019						0.0038 (J)	0.005 (J)	0.0083 (J)
11/18/2019						0.0046 (J)		
11/19/2019							0.0059 (J)	0.0096 (J)
12/4/2019							0.0073 (J)	0.0099 (J)
12/5/2019						0.0046 (J)		
12/17/2019							0.009 (J)	
12/18/2019						0.0045 (J)		0.011 (J)
1/8/2020							0.0077 (J)	0.0092 (J)
1/9/2020						0.004 (J)		
1/21/2020						0.0036 (J)	0.007 (J)	0.009 (J)
2/4/2020						<0.01	0.0057 (J)	0.0078 (J)
2/13/2020						0.0036 (J)	0.0063 (J)	0.0091 (J)
3/27/2020	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0095 (J)
9/13/2021	<0.01	<0.01						
9/14/2021			0.0027 (J)	<0.01	<0.01	<0.01	<0.01	<0.01
3/1/2022							<0.01	<0.01
3/2/2022			0.0029			<0.01		
3/3/2022	<0.01	<0.01		<0.01	<0.01			
9/20/2022						0.0021 (J)	<0.01	<0.01
9/21/2022	0.0077 (J)	0.0015 (J)	0.002 (J)	0.0015 (J)	0.0063 (J)			

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.0025						
8/31/2016					<0.0025	<0.0025	<0.0025	
11/30/2016		<0.0025			<0.0025	0.0009 (J)	0.0011 (J)	
2/15/2017		<0.0025						
2/16/2017					<0.0025	<0.0025	<0.0025	
5/31/2017			0.0005 (J)					<0.0025
6/1/2017		<0.0025		<0.0025				
6/2/2017					<0.0025	<0.0025	<0.0025	
8/2/2017			0.0005 (J)	<0.0025				0.0006 (J)
8/15/2017								0.0004 (J)
8/16/2017		<0.0025	0.0005 (J)					
8/17/2017				<0.0025	<0.0025	0.0003 (J)	<0.0025	
4/4/2018				<0.0025				<0.0025
4/5/2018			<0.0025					
5/8/2018				<0.0025				<0.0025
5/9/2018			<0.0025					
6/19/2018		<0.0025	<0.0025					<0.0025
6/20/2018				<0.0025	<0.0025	<0.0025		
6/21/2018							<0.0025	
9/25/2018								<0.0025
9/26/2018		0.00052	0.00052					
9/27/2018				<0.0025	<0.0025	<0.0025	<0.0025	
11/6/2018				0.0048 (J)			<0.0025	<0.0025
11/7/2018		<0.0025	<0.0025		<0.0025	<0.0025		
3/6/2019						<0.0025		
8/27/2019		<0.0025		0.0078				
8/28/2019			0.00042 (J)		<0.0025	<0.0025	<0.0025	<0.0025
10/15/2019				0.0085				
10/16/2019		<0.0025	0.00037 (J)		<0.0025			<0.0025
10/17/2019						<0.0025	<0.0025	
11/20/2019				0.009				
3/26/2020		<0.0025						
3/27/2020			<0.0025					<0.0025
3/28/2020				0.0041 (J)	<0.0025	<0.0025	<0.0025	
10/12/2020								<0.0025
10/13/2020		<0.0025	<0.0025	0.0063				
10/14/2020						<0.0025	<0.0025	
10/15/2020	<0.0025				0.0019 (J)			
1/4/2021					<0.0025			
3/3/2021		<0.0025	<0.0025					<0.0025
3/4/2021	<0.0025			0.006	<0.0025	<0.0025	<0.0025	
9/14/2021	<0.0025	<0.0025	<0.0025	0.0054	<0.0025	<0.0025	<0.0025	<0.0025
3/1/2022	<0.0025				<0.0025	<0.0025		
3/2/2022		<0.0025	0.00035 (J)				<0.0025	0.00029 (J)
3/3/2022				0.0049				
9/20/2022	<0.0025					<0.0025		
9/21/2022		<0.0025	0.00032 (J)	0.0025	0.00026 (J)		0.00031 (J)	<0.0025

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	<0.0025	0.0006 (J)		<0.0025				
10/25/2016					<0.0025			
11/30/2016	<0.0025	<0.0025		<0.0025	0.0007 (J)			
2/15/2017	<0.0025	<0.0025		<0.0025	<0.0025			
5/31/2017	0.0005 (J)	<0.0025			<0.0025			
6/1/2017				<0.0025				
6/2/2017			<0.0025					
8/2/2017			<0.0025					
8/15/2017	0.0005 (J)				0.0004 (J)			
8/16/2017		<0.0025						
8/17/2017			<0.0025	0.0004 (J)				
4/4/2018			<0.0025					
5/8/2018			<0.0025					
6/19/2018	0.00053 (J)	<0.0025	<0.0025		<0.0025			
6/20/2018				<0.0025				
9/25/2018	<0.0025	<0.0025						
9/26/2018			0.00052	0.00052	0.00052			
11/6/2018		<0.0025			<0.0025			
11/7/2018	<0.0025		<0.0025	<0.0025				
8/26/2019		<0.0025						
8/27/2019	0.0007 (J)		<0.0025	0.0003 (J)	<0.0025			
10/15/2019	0.00054 (J)	<0.0025	<0.0025					
10/16/2019				<0.0025	<0.0025			
11/7/2019						<0.0025	<0.0025	0.026
11/18/2019						<0.0025		
11/19/2019							<0.0025	0.022 (J)
12/4/2019							<0.0025	0.022
12/5/2019						<0.0025		
12/17/2019							<0.0025	
12/18/2019						<0.0025		0.031
1/8/2020							<0.0025	0.035
1/9/2020						<0.0025		
1/21/2020						<0.0025	<0.0025	0.031
2/4/2020						<0.0025	<0.0025	0.031 (J)
2/13/2020						<0.0025	<0.0025	0.031
3/27/2020	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.036
10/12/2020	<0.0025					<0.0025		
10/13/2020		<0.0025	<0.0025	<0.0025	<0.0025		<0.0025	0.032
3/2/2021	<0.0025	<0.0025	<0.0025					
3/3/2021				<0.0025	<0.0025	<0.0025	<0.0025	0.033
9/13/2021	<0.0025	<0.0025						
9/14/2021			<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.03
3/1/2022							<0.0025	0.031
3/2/2022			7.7E-05 (J)			<0.0025		
3/3/2022	<0.0025	<0.0025		0.00035 (J)	<0.0025			
9/20/2022						<0.0025	<0.0025	0.03
9/21/2022	0.00042 (J)	<0.0025	<0.0025	0.00024 (J)	0.00025 (J)			

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		0.929						
8/31/2016					2.39 (D)	2.47 (D)	5.4 (D)	
11/30/2016		5.64			1.66	1.6	3.13	
2/15/2017		1.41						
2/16/2017					2.71	1.83	3.09	
5/31/2017			1.17 (U)					1.2
6/1/2017		1.51		1.9				
6/2/2017					1.99	2.45	7.56	
8/2/2017			0.704 (U)	5.01				1.26
8/15/2017								0.511 (U)
8/16/2017		1.01 (U)	1.11 (U)					
8/17/2017				5.35	1.87	3.33	6.38	
4/4/2018				5.05				1.04
4/5/2018			0.868 (U)					
5/8/2018				3.25				1.95
5/9/2018			0.888					
6/19/2018		1.23	0.483 (U)					0.785 (U)
6/20/2018				3.53	1.95	2.84		
6/21/2018							5.24	
9/25/2018								1.15 (U)
9/26/2018		0.72 (U)	0.73 (U)					
9/27/2018				7.07	0.629 (U)	1.94	6.11	
11/6/2018				11			6.1	1.1
11/7/2018		0.616 (U)	0.429 (U)		1.41 (U)	8.58		
8/27/2019		1.2 (U)		4.4				
8/28/2019			0.679 (U)		1.67	6.86	8.73	0.434 (U)
10/15/2019				4.92				
10/16/2019		1.4 (U)	0.422 (U)		1.92			0.923 (U)
10/17/2019						7.85	7.97	
11/20/2019							9.8	
3/26/2020		1.15 (U)						
3/27/2020			0.838 (U)					0.609 (U)
3/28/2020				4.16	1.44 (U)	11 (U)	11.7	
10/12/2020								2.7
10/13/2020		0.855 (U)	0.56 (U)	3.71				
10/14/2020						8.97	13.1	
10/15/2020					2.56			
1/4/2021					5.84			
4/6/2021	7.33	1.01 (U)	0.474 (U)	2.83	1.43 (U)	7.89	9.66	1.88
9/14/2021	6.97	1.06 (U)	0.878 (U)	2.69	7.15	8.11	10.3	1.37 (U)
3/1/2022	9.03				8.16 (U)	5.83 (U)		
3/2/2022		0.379 (U)	0.476 (U)				5.66 (U)	0.313 (U)
3/3/2022				2.51				
9/20/2022	8.2					1.51		
9/21/2022		0.863	0.789	1.67	1.42		8.23	0.797

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	1.4	1.31		0.977 (U)				
10/25/2016					2.22			
11/30/2016	4.37	0.438 (U)		0.994	2.01			
2/15/2017	2.21	0.3 (U)		1.65	1.56			
5/31/2017	2.62	1.77			1.92			
6/1/2017				1.22				
6/2/2017			1.47					
8/2/2017			1.99					
8/15/2017	2.69				2.47			
8/16/2017		2.26						
8/17/2017			2.03	1.71				
4/4/2018			1.96					
5/8/2018			1.69					
6/19/2018	2.96	5.39	1.83		2.82			
6/20/2018				1.78				
9/25/2018	2.23	6.22						
9/26/2018			0.637 (U)	1.56	3.15 (D)			
11/6/2018		5.38			2.95			
11/7/2018	2.14		0.894 (U)	0.651 (U)				
8/26/2019		7.68						
8/27/2019	2.91		2.33	1.03 (U)	5.82			
10/15/2019	3.28	8.7	0.979 (U)					
10/16/2019				1.86	7.5			
11/7/2019						14.8	17.7	38.2
11/18/2019						13.9		
11/19/2019							18.9	43.1
11/21/2019		7.34			8.89			
12/4/2019							18.6	45.1
12/5/2019						14.2		
12/17/2019							21.8	
12/18/2019						17		55.8
1/8/2020							16.9	46.5
1/9/2020						12.3		
1/21/2020						11.7	15.6	37.7
2/4/2020						12.7	22.38	47.9
2/13/2020						18.2	31.1	76.3 (o)
3/27/2020	2.33	9.63	1.84	1.51	9.54	10.2	22.8	47.2
10/12/2020	2.66					8.83		
10/13/2020		7.43	3.32	1.71	7.75		14.1	30.3
4/6/2021	2.2	7.02	1.74	1.81	7.8	9.57	20.4	31.5
9/13/2021	2.54	8.38						
9/14/2021			1.15 (U)	2.02	8.82	8.31	26.2	34.9
3/1/2022							9.65	27.5
3/2/2022			1.48			9.23		
3/3/2022	3.56 (U)	8		1.1 (U)	9.1			
9/20/2022						9.35	18.2	30.1
9/21/2022	1.54	4.52	1.23	1.02	5.26			

Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		0.03 (J)						
8/31/2016					0.93	0.41	0.92	
11/30/2016		0.04 (J)			0.93	0.61	0.99	
2/15/2017		0.007 (J)						
2/16/2017					0.6	0.3 (J)	0.54	
5/31/2017			0.01 (J)					0.85
6/1/2017		<0.1		<0.1				
6/2/2017					0.34	0.19 (J)	0.42	
8/2/2017			0.14 (J)	0.27 (J)				0.69
8/15/2017								0.29 (J)
8/16/2017		0.03 (J)	0.13 (J)					
8/17/2017				0.18 (J)	0.52	0.26 (J)	0.27 (J)	
4/4/2018				<0.1				0.32
4/5/2018			<0.1					
5/8/2018				0.56				0.63
5/9/2018			<0.1					
6/19/2018		<0.1	0.065 (J)					0.17 (J)
6/20/2018				0.033 (J)	0.5	0.22 (J)		
6/21/2018							0.28 (J)	
9/25/2018								0.15 (J)
9/26/2018		0.12 (J)	0.029					
9/27/2018				0.12 (J)	0.32	0.068 (J)	0.32 (D)	
11/6/2018				<0.1			0.086 (J)	<0.1
11/7/2018		<0.1	<0.1		0.35	10.3 (o)		
3/6/2019						<0.1		
3/24/2019					0.32	0.19 (J)	0.14 (J)	
3/25/2019		0.038 (J)	0.039 (J)	0.055 (J)				0.12 (J)
8/27/2019		<0.1		<0.1				
8/28/2019			<0.1		0.36	<0.1	<0.1	0.068 (J)
10/15/2019				0.095 (J)				
10/16/2019		0.046 (JD)	0.044 (JD)		0.41			0.1 (J)
10/17/2019						<0.1	<0.1	
11/20/2019					0.34		<0.1	
3/26/2020		<0.1						
3/27/2020			<0.1					0.066 (J)
3/28/2020				<0.1	0.34	<0.1	<0.1	
10/12/2020								<0.1
10/13/2020		<0.1	<0.1	<0.1				
10/14/2020						<0.1	<0.1	
10/15/2020	0.11				0.22			
1/4/2021					<0.1			
3/3/2021		<0.1	<0.1					0.082 (J)
3/4/2021	<0.1			<0.1	0.45	<0.1	<0.1	
9/14/2021	<0.1	<0.1	<0.1	0.05	<0.1	<0.1	<0.1	0.18
3/1/2022	<0.1				<0.1	<0.1		
3/2/2022		<0.1	<0.1				<0.1	0.097 (J)
3/3/2022				<0.1				
9/20/2022	<0.1					1.1 (J)		
9/21/2022		<0.1	<0.1	<0.1	0.48		0.18	0.11

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	1.5	0.5		0.04 (J)				
10/25/2016					1.1			
11/30/2016	1.4	0.49		0.18 (J)	1.3			
2/15/2017	1.3	0.58		0.02 (J)	1.3			
5/31/2017	1.2	0.56			1.3			
6/1/2017				0.005 (J)				
6/2/2017			<0.1					
8/2/2017			0.05 (J)					
8/15/2017	1.2				1.2			
8/16/2017		0.45						
8/17/2017			<0.1	0.04 (J)				
4/4/2018			<0.1					
5/8/2018			<0.1					
6/19/2018	0.91	<0.1	0.057 (J)		0.6			
6/20/2018				0.038 (J)				
9/25/2018	1.1	<0.1						
9/26/2018			0.029	0.029	0.44 (D)			
11/6/2018		0.084 (J)			0.4			
11/7/2018	<0.1		<0.1	<0.1				
3/24/2019	0.99	0.14 (J)			0.31			
3/25/2019			0.036 (J)	0.041 (J)				
8/26/2019		<0.1						
8/27/2019	1.1		<0.1	<0.1	<0.1			
10/15/2019	1	<0.1	0.14 (J)					
10/16/2019				0.044 (J)	0.083 (J)			
11/7/2019						0.49	<0.1	1.4
11/18/2019						0.52		
11/19/2019							0.033 (J)	1.2
11/21/2019		<0.1			<0.1			
12/4/2019							0.22 (J)	1.4
12/5/2019						0.5		
12/17/2019							<0.1	
12/18/2019						0.33		1.5
1/8/2020							<0.1	<0.1
1/9/2020						0.12 (J)		
1/21/2020						0.13 (J)	0.11 (J)	0.53
2/4/2020						0.18 (J)	<0.1	<0.1
2/13/2020						0.077 (J)	<0.1	<0.1
3/27/2020	1.1	<0.1	<0.1	<0.1	<0.1	0.06 (J)	<0.1	<0.1
10/12/2020	1.2					0.34		
10/13/2020		<0.1	<0.1	<0.1	<0.1		<0.1	<0.1
3/2/2021	1	<0.1	<0.1					
3/3/2021				<0.1	<0.1	0.32	<0.1	<0.1
9/13/2021	1.4	<0.1						
9/14/2021			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
3/1/2022							<0.1	<0.1
3/2/2022			<0.1			<0.1		
3/3/2022	0.95	<0.1		<0.1	<0.1			
9/20/2022						0.61 (J)	<0.1	4.3 (Jo)
9/21/2022	1.3	0.12	<0.1	<0.1	0.78			

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Lead (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.005						
8/31/2016					<0.005	<0.005	<0.005	
11/30/2016		<0.005			0.0002 (J)	<0.005	<0.005	
2/15/2017		<0.005						
2/16/2017					<0.005	<0.005	0.0002 (J)	
5/31/2017			<0.005					<0.005
6/1/2017		<0.005		<0.005				
6/2/2017					<0.005	<0.005	<0.005	
8/2/2017			0.0001 (J)	<0.005				<0.005
8/15/2017								<0.005
8/16/2017		<0.005	<0.005					
8/17/2017				<0.005	<0.005	<0.005	8E-05 (J)	
4/4/2018				<0.005				<0.005
4/5/2018			<0.005					
5/8/2018				<0.005				<0.005
5/9/2018			<0.005					
6/19/2018		<0.005	<0.005					<0.005
6/20/2018				<0.005	<0.005	<0.005		
6/21/2018							<0.005	
9/25/2018								<0.005
9/26/2018		0.00027	0.00027					
9/27/2018				<0.005	<0.005	<0.005	<0.005	
11/6/2018				<0.005			<0.005	<0.005
11/7/2018		<0.005	<0.005		<0.005	<0.005		
3/6/2019						<0.005		
3/25/2019								<0.005
8/27/2019		<0.005		<0.005				
8/28/2019			<0.005		<0.005	<0.005	0.0001 (J)	<0.005
10/15/2019				<0.005				
10/16/2019		<0.005	<0.005		<0.005			<0.005
10/17/2019						0.00012 (J)	<0.005	
3/26/2020		<0.005						
3/27/2020			<0.005					<0.005
3/28/2020				<0.005	<0.005	<0.005	<0.005	
10/12/2020								<0.005
10/13/2020		<0.005	<0.005	<0.005				
10/14/2020						<0.005	<0.005	
10/15/2020	<0.005				<0.005			
1/4/2021					<0.005			
3/3/2021		<0.005	<0.005					<0.005
3/4/2021	<0.005			<0.005	<0.005	<0.005	<0.005	
9/14/2021	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/1/2022	<0.005				<0.005	<0.005		
3/2/2022		<0.005	<0.005				<0.005	<0.005
3/3/2022				<0.005				
9/20/2022	<0.005					<0.005		
9/21/2022		<0.005	<0.005	<0.005	<0.005		<0.005	<0.005

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Lead (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	0.0001 (J)	<0.005		<0.005				
10/25/2016					<0.005			
11/30/2016	<0.005	<0.005		0.0002 (J)	<0.005			
2/15/2017	<0.005	<0.005		<0.005	<0.005			
5/31/2017	9E-05 (J)	<0.005			<0.005			
6/1/2017				<0.005				
6/2/2017			<0.005					
8/2/2017			0.0001 (J)					
8/15/2017	<0.005				0.0002 (J)			
8/16/2017		8E-05 (J)						
8/17/2017			0.0001 (J)	<0.005				
4/4/2018			<0.005					
5/8/2018			<0.005					
6/19/2018	<0.005	<0.005	<0.005		<0.005			
6/20/2018				<0.005				
9/25/2018	<0.005	<0.005						
9/26/2018			0.00027	0.00027	0.00027			
11/6/2018		<0.005			<0.005			
11/7/2018	<0.005		<0.005	<0.005				
8/26/2019		<0.005						
8/27/2019	0.00022 (J)		0.00011 (J)	<0.005	0.00014 (J)			
10/15/2019	5.6E-05 (J)	<0.005	0.00038 (J)					
10/16/2019				<0.005	0.00034 (J)			
11/7/2019						<0.005	0.00063 (J)	0.0019 (J)
11/18/2019						<0.005		
11/19/2019							<0.005	0.0013 (J)
12/4/2019							5.3E-05 (J)	0.00045 (J)
12/5/2019						<0.005		
12/17/2019							<0.005	
12/18/2019						<0.005		0.00023 (J)
1/8/2020							<0.005	0.00029 (J)
1/9/2020						<0.005		
1/21/2020						<0.005	<0.005	0.00033 (J)
2/4/2020						<0.005	<0.005	<0.005
2/13/2020						<0.005	<0.025 (o)	0.00023 (J)
3/27/2020	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
10/12/2020	<0.005					<0.005		
10/13/2020		<0.005	<0.005	<0.005	<0.005		<0.005	<0.005
3/2/2021	<0.005	<0.005	<0.005					
3/3/2021				<0.005	<0.005	<0.005	<0.005	<0.005
9/13/2021	<0.005	<0.005						
9/14/2021			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/1/2022							<0.005	<0.005
3/2/2022			<0.005			<0.005		
3/3/2022	<0.005	<0.005		<0.005	<0.005			
9/20/2022						<0.005	<0.005	<0.005
9/21/2022	0.00083 (J)	<0.005	0.00092 (J)	<0.005	<0.005			

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Lithium (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.025						
8/31/2016					0.0219 (J)	0.0389 (J)	0.0122 (J)	
11/30/2016		<0.025			0.0333 (J)	0.0303 (J)	0.011 (J)	
2/15/2017		<0.025						
2/16/2017					0.0376 (J)	0.05 (J)	0.0142 (J)	
5/31/2017			<0.025					0.0047 (J)
6/1/2017		<0.025		<0.025				
6/2/2017					0.0346 (J)	0.0477 (J)	0.0229 (J)	
8/2/2017			<0.025	<0.025				0.0036 (J)
8/15/2017								<0.025
8/16/2017		<0.025	<0.025					
8/17/2017				<0.025	0.0367 (J)	0.0645	0.0241 (J)	
4/4/2018				0.0013 (J)				0.0041 (J)
4/5/2018			<0.025					
5/8/2018				0.0012 (J)				0.0052 (J)
5/9/2018			<0.025					
6/19/2018		<0.025	<0.025					0.0017 (J)
6/20/2018				0.0015 (J)	0.034 (J)	0.066 (J)		
6/21/2018							0.03 (J)	
9/25/2018								0.0018 (J)
9/26/2018		0.00097	0.00097					
9/27/2018				0.0021 (J)	0.023 (J)	0.045 (J)	0.034 (J)	
11/6/2018				0.0038 (J)			0.037 (J)	<0.025
11/7/2018		<0.025	<0.025		0.022 (J)	0.11		
3/6/2019						0.12		
8/27/2019		<0.025		0.002 (J)				
8/28/2019			<0.025		0.023 (J)	0.13	0.12	0.00082 (J)
10/15/2019				0.0019 (J)				
10/16/2019		<0.025	<0.025		0.021 (J)			<0.025
10/17/2019						0.12	0.096	
11/20/2019							0.12	
3/26/2020		<0.025						
3/27/2020			<0.025					<0.025
3/28/2020	0.078 (J)			<0.025	0.014 (J)	0.064	0.027 (J)	
6/16/2020	0.096 (J)							
10/12/2020								<0.025
10/13/2020		<0.025	<0.025	<0.025				
10/14/2020						0.11	0.039 (J)	
10/15/2020	0.093				0.57			
1/4/2021					0.043 (J)			
3/3/2021		<0.025	<0.025					<0.025
3/4/2021	0.094 (J)			<0.025	0.017 (J)	0.096 (J)	0.035 (J)	
9/14/2021	0.092	<0.025	<0.025	<0.025	0.042 (J)	0.084	0.035 (J)	0.0033 (J)
3/1/2022	0.088 (J)				0.028 (J)	0.074		
3/2/2022		0.00064 (J)	<0.025				0.022 (J)	0.0026
3/3/2022				0.0017 (J)				
9/20/2022	<0.025					0.043		
9/21/2022		<0.025	<0.025	<0.025	0.018 (J)		0.02 (J)	<0.025

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Lithium (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	0.0102 (J)	0.0112 (J)		<0.025				
10/25/2016					0.007 (J)			
11/30/2016	0.0106 (J)	<0.025		<0.025	0.0086 (J)			
2/15/2017	0.0115 (J)	0.0105 (J)		<0.025	0.0149 (J)			
5/31/2017	0.011 (J)	0.0106 (J)			0.019 (J)			
6/1/2017				<0.025				
6/2/2017			<0.025					
8/2/2017			<0.025					
8/15/2017	0.0123 (J)				0.016 (J)			
8/16/2017		0.0145 (J)						
8/17/2017			<0.025	<0.025				
4/4/2018			0.0015 (J)					
5/8/2018			0.0014 (J)					
6/19/2018	0.012 (J)	0.044 (J)	0.0016 (J)		0.021 (J)			
6/20/2018				<0.025				
9/25/2018	0.011 (J)	0.041 (J)						
9/26/2018			0.0018 (J)	0.00097	0.02 (J)			
11/6/2018		0.047 (J)			0.017 (J)			
11/7/2018	0.013 (J)		<0.025	<0.025				
8/26/2019		0.059						
8/27/2019	0.012 (J)		0.002 (J)	<0.025	0.023 (J)			
10/15/2019	0.012 (J)	0.056 (J)	0.0016 (J)					
10/16/2019				<0.025	0.024 (J)			
11/7/2019						0.0055 (J)	0.015 (J)	0.026 (J)
11/18/2019						<0.1 (o)		
11/19/2019							0.02 (J)	0.023 (J)
11/21/2019		0.052						
12/4/2019							0.016 (J)	0.019 (J)
12/5/2019						0.0042 (J)		
12/17/2019							0.018 (J)	
12/18/2019						0.0045 (J)		0.02 (J)
1/8/2020							0.022 (J)	0.024 (J)
1/9/2020						0.0041 (J)		
1/21/2020						<0.15 (o)	0.018 (J)	0.022 (J)
2/4/2020						<0.3 (o)	0.02 (J)	0.024 (J)
2/13/2020						0.004 (J)	0.018 (J)	0.021 (J)
3/27/2020	<0.025	0.052	<0.025	<0.025	0.033 (J)	<0.025	0.018 (J)	0.024 (J)
10/12/2020	0.011 (J)					<0.025		
10/13/2020		0.046 (J)	<0.025	<0.025	0.028 (J)		0.022 (J)	0.025 (J)
3/2/2021	<0.025	0.046 (J)	<0.025					
3/3/2021				<0.025	<0.025	<0.025	0.019 (J)	0.018 (J)
9/13/2021	0.01 (J)	0.047						
9/14/2021			<0.025	<0.025	0.035 (J)	<0.025	0.011 (J)	0.02 (J)
3/1/2022							<0.025	0.02 (J)
3/2/2022			0.0017 (J)			<0.025		
3/3/2022	<0.025	0.037 (J)		0.00061 (J)	0.02 (J)			
9/20/2022						<0.025	0.014 (J)	0.029
9/21/2022	0.0075 (J)	0.028	<0.025	<0.025	0.023 (J)			

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Mercury (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.0002						
8/31/2016					<0.0002	<0.0002	<0.0002	
11/30/2016		<0.0002			<0.0002	<0.0002	<0.0002	
2/15/2017		<0.0002						
2/16/2017					<0.0002	<0.0002	<0.0002	
5/31/2017			<0.0002					<0.0002
6/1/2017		<0.0002		<0.0002				
6/2/2017					4.2E-05 (J)	<0.0002	<0.0002	
8/2/2017			<0.0002	<0.0002				<0.0002
8/15/2017								<0.0002
8/16/2017		<0.0002	<0.0002					
8/17/2017				<0.0002	<0.0002	<0.0002	<0.0002	
4/4/2018				<0.0002				<0.0002
4/5/2018			<0.0002					
5/8/2018				<0.0002				<0.0002
5/9/2018			<0.0002					
6/19/2018		<0.0002	<0.0002					<0.0002
6/20/2018				<0.0002	<0.0002	<0.0002		
6/21/2018							<0.0002	
9/25/2018								<0.0002
9/26/2018		3.6E-05	3.6E-05					
9/27/2018				<0.0002	<0.0002	<0.0002	<0.0002	
11/6/2018				0.00071			0.00067	0.0007
11/7/2018		<0.0002	<0.0002		<0.0002	<0.0002		
3/6/2019						<0.0002		
8/27/2019		<0.0002		<0.0002				
8/28/2019			<0.0002		<0.0002	<0.0002	<0.0002	<0.0002
3/26/2020		<0.0002						
3/27/2020			<0.0002					<0.0002
3/28/2020				<0.0002	<0.0002	<0.0002	<0.0002	
9/14/2021	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.00016 (J)	<0.0002	<0.0002
3/1/2022	<0.0002				<0.0002	<0.0002		
3/2/2022		<0.0002	<0.0002				<0.0002	<0.0002
3/3/2022				<0.0002				
9/20/2022	<0.0002					<0.0002		
9/21/2022		<0.0002	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Mercury (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	<0.0002	<0.0002		<0.0002				
10/25/2016					<0.0002			
11/30/2016	<0.0002	<0.0002		<0.0002	<0.0002			
2/15/2017	<0.0002	<0.0002		<0.0002	<0.0002			
5/31/2017	<0.0002	<0.0002			<0.0002			
6/1/2017				<0.0002				
6/2/2017			<0.0002					
8/2/2017			<0.0002					
8/15/2017	<0.0002				<0.0002			
8/16/2017		<0.0002						
8/17/2017			<0.0002	<0.0002				
4/4/2018			<0.0002					
5/8/2018			<0.0002					
6/19/2018	<0.0002	<0.0002	<0.0002		<0.0002			
6/20/2018				<0.0002				
9/25/2018	<0.0002	<0.0002						
9/26/2018			3.6E-05	3.6E-05	3.6E-05			
11/6/2018		0.00066			0.00064			
11/7/2018	<0.0002		<0.0002	<0.0002				
8/26/2019		<0.0002						
8/27/2019	<0.0002		<0.0002	<0.0002	<0.0002			
11/7/2019						<0.0002	<0.0002	<0.0002
11/18/2019						<0.0002		
11/19/2019							<0.0002	<0.0002
12/4/2019							<0.0002	<0.0002
12/5/2019						<0.0002		
12/17/2019							<0.0002	
12/18/2019						<0.0002		<0.0002
1/8/2020							<0.0002	<0.0002
1/9/2020						<0.0002		
1/21/2020						<0.0002	<0.0002	<0.0002
2/4/2020						<0.0002	<0.0002	<0.0002
2/13/2020						<0.0002	<0.0002	<0.0002
3/27/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
9/13/2021	<0.0002	<0.0002						
9/14/2021			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
3/1/2022							<0.0002	<0.0002
3/2/2022			<0.0002			<0.0002		
3/3/2022	<0.0002	<0.0002		<0.0002	<0.0002			
9/20/2022						<0.0002	<0.0002	<0.0002
9/21/2022	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002			

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.01						
8/31/2016					<0.01	<0.01	<0.01	
11/30/2016		<0.01			<0.01	<0.01	<0.01	
2/15/2017		<0.01						
2/16/2017					<0.01	<0.01	<0.01	
5/31/2017			<0.01					<0.01
6/1/2017		<0.01		<0.01				
6/2/2017					<0.01	<0.01	<0.01	
8/2/2017			<0.01	<0.01				<0.01
8/15/2017								<0.01
8/16/2017		<0.01	<0.01					
8/17/2017				<0.01	0.0012 (J)	0.0025 (J)	<0.01	
4/4/2018				<0.01				<0.01
4/5/2018			<0.01					
5/8/2018				<0.01				<0.01
5/9/2018			<0.01					
6/19/2018		<0.01	<0.01					<0.01
6/20/2018				<0.01	<0.01	<0.01		
6/21/2018							<0.01	
9/25/2018								<0.01
9/26/2018		0.0019	0.0019					
9/27/2018				<0.01	<0.01	<0.01	<0.01	
11/6/2018				<0.01			<0.01	<0.01
11/7/2018		<0.01	<0.01		<0.01	0.0024 (J)		
3/6/2019						<0.01		
8/27/2019		<0.01		<0.01				
8/28/2019			<0.01		<0.01	0.0017 (J)	<0.01	<0.01
10/15/2019				<0.01				
10/16/2019		<0.01	<0.01		<0.01			<0.01
10/17/2019						0.0017 (J)	<0.01	
3/26/2020		<0.01						
3/27/2020			<0.01					<0.01
3/28/2020				<0.01	<0.01	<0.01	<0.01	
9/14/2021	<0.01	<0.01	0.0008 (J)	<0.01	0.0099 (J)	<0.01	<0.01	<0.01
3/1/2022	<0.01				<0.01	<0.01		
3/2/2022		<0.01	<0.01				<0.01	<0.01
3/3/2022				0.00015 (J)				
9/20/2022	<0.01					0.0013 (J)		
9/21/2022		<0.01	<0.01	<0.01	0.00095 (J)		0.00095 (J)	<0.01

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	<0.01	<0.01		<0.01				
10/25/2016					<0.01			
11/30/2016	<0.01	<0.01		<0.01	<0.01			
2/15/2017	<0.01	<0.01		<0.01	<0.01			
5/31/2017	<0.01	<0.01			<0.01			
6/1/2017				<0.01				
6/2/2017			<0.01					
8/2/2017			<0.01					
8/15/2017	<0.01				<0.01			
8/16/2017		<0.01						
8/17/2017			<0.01	<0.01				
4/4/2018			<0.01					
5/8/2018			0.002 (J)					
6/19/2018	<0.01	<0.01	<0.01		<0.01			
6/20/2018				<0.01				
9/25/2018	<0.01	<0.01						
9/26/2018			0.0019	0.0019	0.0019			
11/6/2018		<0.01			<0.01			
11/7/2018	<0.01 (D)		<0.01 (D)	<0.01				
8/26/2019		<0.01						
8/27/2019	<0.01		<0.01	<0.01	<0.01			
10/15/2019	<0.01	<0.01	<0.01					
10/16/2019				<0.01	<0.01			
11/7/2019						<0.01	<0.01	<0.01
11/18/2019						<0.01		
11/19/2019							<0.01	<0.01
12/4/2019							<0.01	<0.01
12/5/2019						<0.01		
12/17/2019							<0.01	
12/18/2019						<0.01		<0.01
1/8/2020							<0.01	<0.01
1/9/2020						<0.01		
1/21/2020						<0.01	<0.01	<0.01
2/4/2020						<0.01	<0.01	<0.01
2/13/2020						<0.01	<0.01	<0.01
3/27/2020	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
9/13/2021	<0.01	<0.01						
9/14/2021			0.0009 (J)	<0.01	<0.01	<0.01	<0.01	<0.01
3/1/2022							<0.01	<0.01
3/2/2022			0.00078 (J)			<0.01		
3/3/2022	<0.01	<0.01		0.00021 (J)	<0.01			
9/20/2022						<0.01	<0.01	<0.01
9/21/2022	<0.01	<0.01	0.00094 (J)	<0.01	<0.01			

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: pH, field (Std. Units) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		5.66						
8/31/2016					6.93	7.21	6.66	
11/30/2016		5.36			6.77	7.23	6.69	
2/15/2017		5.25						
2/16/2017					6.89	7.27	6.72	
5/31/2017			5.06					5.29
6/1/2017		5.59		5.68				
6/2/2017					6.83	7.18	6.53	
8/2/2017			5	5.2				5.19
8/15/2017								5.19
8/16/2017		5.58	4.98					
8/17/2017				5.31	6.76	7.15	6.28	
4/4/2018				4.74				5.19
4/5/2018			5.02					
5/8/2018				4.78				5.3
5/9/2018			4.96					
6/19/2018		5.51	5.02					5.15
6/20/2018				4.79	6.83	7.19		
6/21/2018							6.45	
9/25/2018								5.13
9/26/2018		5.32	5.06					
9/27/2018				5.14	6.64	7.21	6.48	
11/6/2018				4.9			6.18	5.08
11/7/2018		5.72	5.03		6.6	6.91		
3/24/2019					6.1	6.98	6.38	
3/25/2019		5.75	5.08	4.93				5.05
8/27/2019		5.58		5.05				
8/28/2019			4.99		6.69	6.87	6.35	4.87
10/15/2019				4.89				
10/16/2019		5.72	4.98		6.64			5.05
10/17/2019						6.86	6.4	
11/19/2019			5.11					
11/20/2019		5.77		5.03	6.58		6.27	
3/26/2020		5.45						
3/27/2020			5.12					5.09
3/28/2020	7.11			5.27	6.6	6.8	6.35	
6/16/2020	7.22							
10/12/2020								5
10/13/2020		5.69	5.03	5.25				
10/14/2020						6.93	6.32	
10/15/2020	7.08				6.53			
1/4/2021					6.66			
3/3/2021		5.81	5.06					5.07
3/4/2021	7.21			5.31	6.52	6.94	6.33	
9/14/2021	7.11	5.13	5.04	5.09	6.67	6.94	6.28	5.5
3/1/2022	7.08				6.87	7.24		
3/2/2022		5.32	5.16				6.41	5.11
3/3/2022				4.98				
9/20/2022	7.07					7.29		
9/21/2022		4.95	5.14	5.34	6.93		6.27	4.97

Time Series

Constituent: pH, field (Std. Units) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	6.49	7.04		5.18				
10/25/2016					6.95			
11/30/2016	6.5	7.13		4.96	6.95			
2/15/2017	6.51	7.02		5.13	6.85			
5/31/2017	6.45	7			6.96			
6/1/2017				4.99				
6/2/2017			5.31					
8/2/2017			5.05					
8/15/2017	6.41				6.99			
8/16/2017		6.88						
8/17/2017			5.52	4.68				
4/4/2018			5.45					
5/8/2018			5.54					
6/19/2018	6.32	6.78	5.6		6.91			
6/20/2018				4.77				
9/25/2018	6.31	6.75						
9/26/2018			5.17	4.65	6.81			
11/6/2018		6.92			5.99			
11/7/2018	6.3		5.47	4.99				
3/24/2019	6.4	6.59	5.4		6.62			
3/25/2019				5.13				
8/26/2019		6.62						
8/27/2019	6.24		5.35	4.88	6.23			
10/15/2019	6.19	6.58	5.32					
10/16/2019				4.89	6.54			
11/7/2019						4.25	5.21	3.79
11/18/2019						4.12		
11/19/2019							5.15	3.78
11/21/2019		6.67			6.44			
12/4/2019							5.28 (D)	3.87 (D)
12/5/2019						4.17 (D)		
1/8/2020							5.04	3.77
1/9/2020						4.19		
1/21/2020						4.28	5.1	3.73
2/4/2020						4.26	5.15	3.72
2/13/2020						4.2	5.07	3.75
3/27/2020	6.33	6.59	5.3	5.12	6.93	4.34	5.14	3.81
10/12/2020	6.35					4.29		
10/13/2020		6.56	5.02	5.17	6.34		5.04	3.72
3/2/2021	6.34	6.55	5.16					
3/3/2021				5.71	6.58	4.37	5.1	3.36
9/13/2021	6.24	6.3						
9/14/2021			5.39	4.69	6.77	4.28	5.31	3.72
3/1/2022							5.38	3.69
3/2/2022			5.37			4.33		
3/3/2022	6.51	6.49		4.88	4.27			
9/20/2022						4.47	5.14	3.63
9/21/2022	6.3	6.61	5.23	4.91	6.72			

Time Series

Constituent: Selenium (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.005						
8/31/2016					0.002 (J)	0.0015 (J)	0.0021 (J)	
11/30/2016		0.0011 (J)			0.0023 (J)	0.0054 (J)	<0.005	
2/15/2017		<0.005						
2/16/2017					0.002 (J)	0.0022 (J)	0.0025 (J)	
5/31/2017			<0.005					<0.005
6/1/2017		<0.005		<0.005				
6/2/2017					<0.005	<0.005	<0.005	
8/2/2017			<0.005	<0.005				<0.005
8/15/2017								<0.005
8/16/2017		<0.005	<0.005					
8/17/2017				<0.005	<0.005	0.002 (J)	0.0033 (J)	
4/4/2018				<0.005				<0.005
4/5/2018			<0.005					
5/8/2018				<0.005				<0.005
5/9/2018			<0.005					
6/19/2018		<0.005	<0.005					<0.005
6/20/2018				<0.005	<0.005	<0.005		
6/21/2018							<0.005	
9/25/2018								<0.005
9/26/2018		0.0014	0.0014					
9/27/2018				<0.005	<0.005	<0.005	0.0023 (J)	
11/6/2018				0.0025 (J)			0.0048 (J)	<0.005
11/7/2018		<0.005	<0.005		<0.005	0.0075 (J)		
3/6/2019						0.0024 (J)		
3/25/2019								<0.005
8/27/2019		<0.005		<0.005				
8/28/2019			<0.005		<0.005	0.0014 (J)	0.0019 (J)	<0.005
10/15/2019				<0.005				
10/16/2019		<0.005	<0.005		<0.005			<0.005
10/17/2019						0.0066 (J)	0.0049 (J)	
3/26/2020		<0.005						
3/27/2020			<0.005					<0.005
3/28/2020				<0.005	<0.005	<0.005	<0.005	
10/12/2020								<0.005
10/13/2020		<0.005	<0.005	<0.005				
10/14/2020						<0.005	<0.005	
10/15/2020	<0.005				0.0028 (J)			
1/4/2021					<0.005			
3/3/2021		<0.005	<0.005					<0.005
3/4/2021	<0.005			0.00038 (J)	<0.005	<0.005	<0.005	
9/14/2021	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/1/2022	<0.005				<0.005	<0.005		
3/2/2022		<0.005	<0.005				<0.005	0.00022 (J)
3/3/2022				0.00012 (J)				
9/20/2022	<0.005					<0.005		
9/21/2022		<0.005	<0.005	<0.005	<0.005		<0.005	<0.005

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Selenium (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	0.0011 (J)	<0.005		<0.005				
10/25/2016					0.003 (J)			
11/30/2016	0.0023 (J)	<0.005		0.0011 (J)	0.0087 (J)			
2/15/2017	0.0021 (J)	0.0014 (J)		<0.005	0.0067 (J)			
5/31/2017	<0.005	<0.005			0.0018 (J)			
6/1/2017				<0.005				
6/2/2017			<0.005					
8/2/2017			<0.005					
8/15/2017	0.0021 (J)				0.0025 (J)			
8/16/2017		0.0018 (J)						
8/17/2017			<0.005	<0.005				
4/4/2018			<0.005					
5/8/2018			0.0016 (J)					
6/19/2018	0.0017 (J)	<0.005	0.0022 (J)		<0.005			
6/20/2018				<0.005				
9/25/2018	0.002 (J)	0.0019 (J)						
9/26/2018			0.0015 (J)	0.0014	0.0016 (J)			
11/6/2018		0.0057 (J)			<0.005			
11/7/2018	<0.005		<0.005	<0.005				
8/26/2019		0.0025 (J)						
8/27/2019	0.0019 (J)		0.0018 (J)	<0.005	0.0018 (J)			
10/15/2019	<0.005	0.003 (J)	<0.005					
10/16/2019				<0.005	<0.005			
11/7/2019						0.036	0.063	0.12
11/18/2019						<0.005		
11/19/2019							0.039 (J)	0.047 (J)
12/4/2019							0.12	0.11
12/5/2019						0.032		
12/17/2019							0.031 (J)	
12/18/2019						0.01		0.032 (J)
1/8/2020							0.066	0.044 (J)
1/9/2020						0.01		
1/21/2020						0.023 (J)	0.13	0.089
2/4/2020						0.017 (J)	0.065 (J)	0.049 (J)
2/13/2020						0.015	0.15	0.11
3/27/2020	<0.005	<0.005	<0.005	<0.005	<0.005	0.0034 (J)	0.013	0.012
10/12/2020	<0.005					<0.005		
10/13/2020		<0.005	<0.005	<0.005	<0.005		0.0076 (J)	0.0056 (J)
3/2/2021	<0.005	<0.005	<0.005					
3/3/2021				<0.005	<0.005	0.0012 (J)	0.013 (J)	0.0094 (J)
9/13/2021	<0.005	<0.005						
9/14/2021			<0.005	<0.005	0.0021	<0.005	0.0022 (J)	0.0018 (J)
3/1/2022							<0.04	0.0058 (J)
3/2/2022			0.00028 (J)			<0.005		
3/3/2022	<0.005	<0.005		<0.005	<0.005			
9/20/2022						<0.005	0.0046 (J)	0.0027 (J)
9/21/2022	<0.005	<0.005	<0.005	<0.005	<0.005			

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		17						
8/31/2016					37	21	290	
11/30/2016		33			63	19	240	
2/15/2017		83						
2/16/2017					90	22	220	
5/31/2017			46					40
6/1/2017		51		42				
6/2/2017					210	28	500	
8/2/2017			43	120				34
8/15/2017								24
8/16/2017		36	41					
8/17/2017				110	80	69	510	
4/4/2018				70.6				33.9
4/5/2018			33.4					
5/8/2018				61.4				35.7
5/9/2018			36					
6/19/2018		50.3	35.5					23.7
6/20/2018				25.3	46 (J)	33		
6/21/2018							481	
9/25/2018								25.6
9/26/2018		54.1	39.6					
9/27/2018				63.4	58.5 (J)	29.4 (D)	777 (D)	
11/6/2018				136			926	25.2
11/7/2018		45.6	35.8		41.3 (J)	734		
3/6/2019						1220 (J)		
3/24/2019					131	413	1070	
3/25/2019		43	34.2	137				24.9
10/15/2019				105				
10/16/2019		31.9	24.4		122.5 (D)			17.4
10/17/2019						507	1230	
11/20/2019					132		1550	
3/26/2020		36.2						
3/27/2020			28.6					23.4
3/28/2020				86.6	63.8	701	1090	
4/23/2020	936							
6/16/2020	970							
10/12/2020								19.3
10/13/2020		32.3	27.6	92.3				
10/14/2020						510	904	
10/15/2020	1060				147			
1/4/2021					262			
3/3/2021		33.8	27.6					19.9
3/4/2021	1060			99.1	82.2	596	982	
9/14/2021	971	34.2	30.4	96.2 (M1)	459	490	819	33.1
3/1/2022	755				143	440		
3/2/2022		30.8	25.7				702	19.5
3/3/2022				50.6				
9/20/2022	820					320		
9/21/2022		39	29	52	100		660	23

Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	4.3	6.4		24				
10/25/2016					84			
11/30/2016	7.6	4.5		26	52			
2/15/2017	3	37		30	190			
5/31/2017	2.5	61			260			
6/1/2017				24				
6/2/2017			13					
8/2/2017			14					
8/15/2017	3.2				210			
8/16/2017		130						
8/17/2017			14	26				
4/4/2018			13.4					
5/8/2018			14.8					
6/19/2018	1.6	498	15.5		218			
6/20/2018				31.2				
9/25/2018	1	790						
9/26/2018			23	36.8	333 (D)			
11/6/2018		875			182			
11/7/2018	0.41 (J)		22.2	35				
3/24/2019	1.5	1170			413			
3/25/2019			22.4	40.1				
10/15/2019	0.54 (J)	<1	17.9					
10/16/2019				28.5	312.5 (D)			
11/7/2019						379	832	1010
11/18/2019						737		
11/19/2019							795	1140
11/21/2019		1070			428			
12/4/2019							810	1020
12/5/2019						351		
12/17/2019							535	
12/18/2019								8.1
1/8/2020							603	747
1/9/2020						254		
1/21/2020						254	611	798
2/4/2020						432	599	1120
2/13/2020						300	761	833
3/27/2020	<5	899	14.6	31.2	504	219	836	700
10/12/2020	<5					191		
10/13/2020		695	7.6	26.8	378		609	638
3/2/2021	1.2	97.5	8					
3/3/2021				30.5	420	171	<1	743
9/13/2021	<5	680						
9/14/2021			16.7	24.4	460	134	995	659
3/1/2022							158	543
3/2/2022			16			186		
3/3/2022	<5	754		20.4	324			
9/20/2022						160	740	750
9/21/2022	<5	270	6.3	24	330			

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Thallium (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.001						
8/31/2016					<0.001	<0.001	<0.001	
11/30/2016		<0.001			<0.001	<0.001	<0.001	
2/15/2017		<0.001						
2/16/2017					<0.001	<0.001	<0.001	
5/31/2017			<0.001					<0.001
6/1/2017		<0.001		<0.001				
6/2/2017					<0.001	<0.001	<0.001	
8/2/2017			<0.001	<0.001				<0.001
8/15/2017								<0.001
8/16/2017		<0.001	<0.001					
8/17/2017				<0.001	<0.001	<0.001	<0.001	
4/4/2018				<0.001				<0.001
4/5/2018			<0.001					
5/8/2018				<0.001				<0.001
5/9/2018			<0.001					
6/19/2018		<0.001	<0.001					<0.001
6/20/2018				<0.001	<0.001	<0.001		
6/21/2018							<0.001	
9/25/2018								<0.001
9/26/2018		0.00014	0.00014					
9/27/2018				<0.001	<0.001	<0.001	<0.001	
11/6/2018				<0.001			<0.001	<0.001
11/7/2018		<0.001	<0.001		<0.001	<0.001		
3/6/2019						<0.001		
8/27/2019		<0.001		<0.001				
8/28/2019			<0.001		<0.001	<0.001	<0.001	<0.001
10/15/2019				<0.001				
10/16/2019		<0.001	<0.001		<0.001			<0.001
10/17/2019						7.6E-05 (J)	<0.001	
3/26/2020		<0.001						
3/27/2020			<0.001					<0.001
3/28/2020				<0.001	<0.001	<0.001	<0.001	
9/14/2021	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
3/1/2022	<0.001				<0.001	<0.001		
3/2/2022		<0.001	<0.001				<0.001	<0.001
3/3/2022				<0.001				
9/20/2022	<0.001					<0.001		
9/21/2022		<0.001	<0.001	<0.001	<0.001		<0.001	<0.001

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Thallium (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	<0.001	<0.001		<0.001				
10/25/2016					<0.001			
11/30/2016	<0.001	<0.001		<0.001	<0.001			
2/15/2017	<0.001	<0.001		<0.001	<0.001			
5/31/2017	<0.001	<0.001			<0.001			
6/1/2017				6E-05 (J)				
6/2/2017			<0.001					
8/2/2017			<0.001					
8/15/2017	<0.001				<0.001			
8/16/2017		<0.001						
8/17/2017			<0.001	7E-05 (J)				
4/4/2018			<0.001					
5/8/2018			<0.001					
6/19/2018	<0.001	<0.001	<0.001		<0.001			
6/20/2018				<0.001				
9/25/2018	<0.001	<0.001						
9/26/2018			0.00014	0.00014	0.00014			
11/6/2018		<0.001			<0.001			
11/7/2018	<0.001		<0.001	<0.001				
8/26/2019		<0.001						
8/27/2019	<0.001		<0.001	6.6E-05 (J)	<0.001			
10/15/2019	<0.001	<0.001	<0.001					
10/16/2019				<0.001	<0.001			
11/7/2019						<0.001	<0.001	<0.001
11/18/2019						<0.001		
11/19/2019							<0.001	<0.001
12/4/2019							<0.001	<0.001
12/5/2019						<0.001		
12/17/2019							<0.001	
12/18/2019						<0.001		<0.001
1/8/2020							<0.001	<0.001
1/9/2020						<0.001		
1/21/2020						<0.001	<0.001	<0.001
2/4/2020						<0.001	<0.001	<0.001
2/13/2020						<0.001	<0.001	<0.001
3/27/2020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
9/13/2021	<0.001	<0.001						
9/14/2021			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
3/1/2022							<0.001	<0.001
3/2/2022			<0.001			<0.001		
3/3/2022	<0.001	<0.001		6.6E-05 (J)	<0.001			
9/20/2022						<0.001	<0.001	<0.001
9/21/2022	<0.001	<0.001	<0.001	<0.001	<0.001			

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		86						
8/31/2016					3620	4160	5100	
11/30/2016		131			4030	3950	4680	
2/15/2017		212						
2/16/2017					4080	4600	5080	
5/31/2017			123					257
6/1/2017		103		97				
6/2/2017					5560	4470	8000	
8/2/2017			136	538				183
8/15/2017								90
8/16/2017		65	124					
8/17/2017				445	4620	5450	8320	
4/4/2018				365				197
4/5/2018			128					
5/8/2018				304				225
5/9/2018			127					
6/19/2018		142	143					112
6/20/2018				114	3370	4940		
6/21/2018							7500	
9/25/2018								137
9/26/2018		133	132					
9/27/2018				255	2360	4480	10200	
11/6/2018				388			11000	89
11/7/2018		121	134		2230	15100		
3/6/2019						19000		
3/24/2019					1450	13700	13700	
3/25/2019		116	111	327				74
10/15/2019				237				
10/16/2019		104	96		2860			82
10/17/2019						16100	13200	
11/20/2019					2640		16700	
3/26/2020		114						
3/27/2020			119					87
3/28/2020				284	1470	18800	18300	
6/16/2020	20100							
10/12/2020								94
10/13/2020		113	118	<25				
10/14/2020						15200	18400	
10/15/2020	19300				5100			
1/4/2021					7750			
3/3/2021		99	84					66
3/4/2021	19000			285	1700	14200	17100	
9/14/2021	16400	66	76	193	8020	11800	13400	191
3/1/2022	15600				3780	9040		
3/2/2022		97	94				12600	124
3/3/2022				146				
9/20/2022	13000					3900		
9/21/2022		100	90	180	2100		9400	110

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/22/2022 12:05 PM

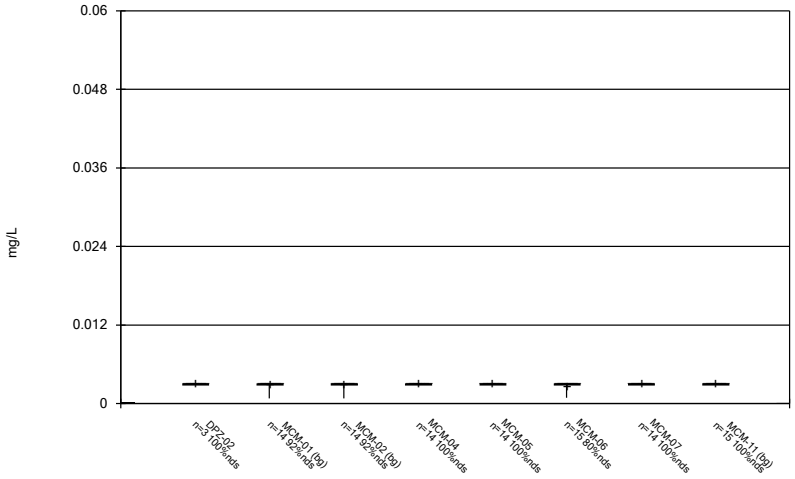
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	1910	1310		99				
10/25/2016					2900			
11/30/2016	1910	1050		111	3970			
2/15/2017	1870	1440		170	3820			
5/31/2017	1920	1740			5050			
6/1/2017				98				
6/2/2017			69					
8/2/2017			35					
8/15/2017	1840				4820			
8/16/2017		3010						
8/17/2017			51	84				
4/4/2018			90					
5/8/2018			89					
6/19/2018	1820	8630	110		5640			
6/20/2018				123				
9/25/2018	1760	10700						
9/26/2018			124	117	6920			
11/6/2018		11100			4160			
11/7/2018	1800		125	120				
3/24/2019	1770	14200			6840			
3/25/2019			98	101				
10/15/2019	1730	15400	107					
10/16/2019				95	7740			
11/7/2019						4140	10900	13500
11/18/2019						4030		
11/19/2019							10000	13300
11/21/2019		15800			7720			
12/4/2019							11000	13200
12/5/2019						3840		
12/17/2019							9860	
12/18/2019						3880		12500
1/8/2020							9760	12300
1/9/2020						3520		
1/21/2020						3280	10100	12000
2/4/2020						3220	10600	12300
2/13/2020						3580	10900	12400
3/27/2020	1970	16400	110	110	10200	3090	14300	14600
10/12/2020	1560					2920		
10/13/2020		15600	63	115	8750		6600	13900
3/2/2021	1430	12000	40					
3/3/2021				122	8830	2620	11000	11400
9/13/2021	1450	11400						
9/14/2021			96	<25	8820	2190	14600	10300
3/1/2022							4050	10500
3/2/2022			103			3100		
3/3/2022	1400	11500		104	8120			
9/20/2022						2000	10000	8600
9/21/2022	1300	7400	38	78	6200			

ND substitution: RL or RL/2 if <15% NDs.

FIGURE B.

Box & Whiskers Plot

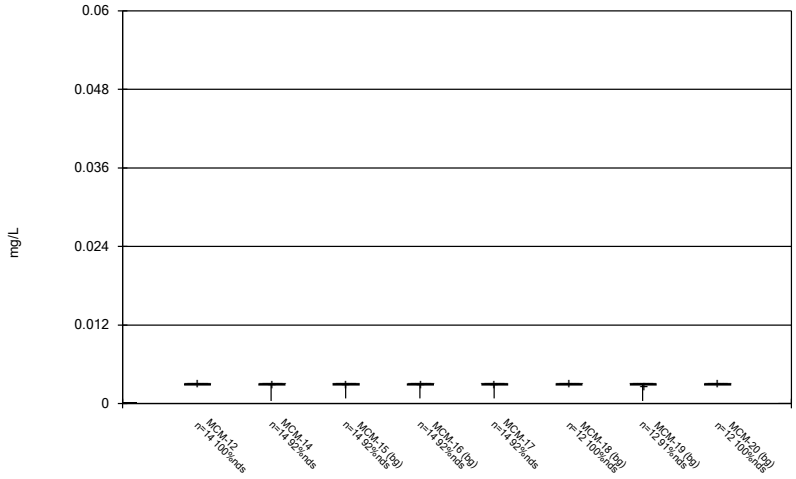


Constituent: Antimony Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Box & Whiskers Plot

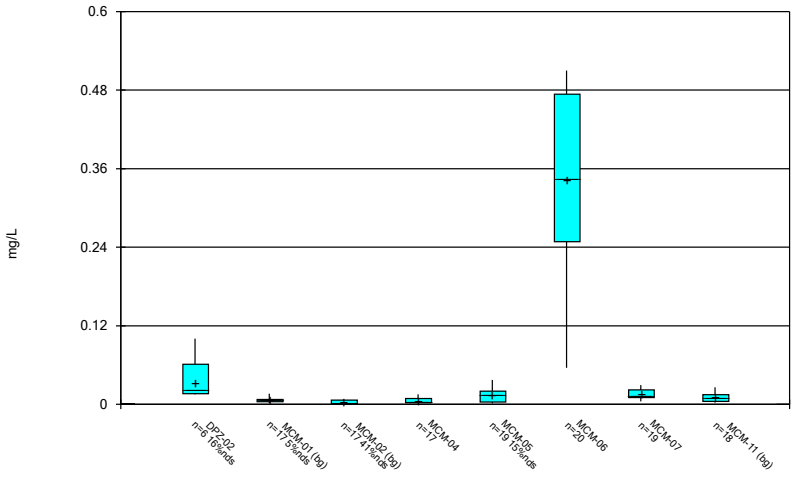


Constituent: Antimony Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Box & Whiskers Plot

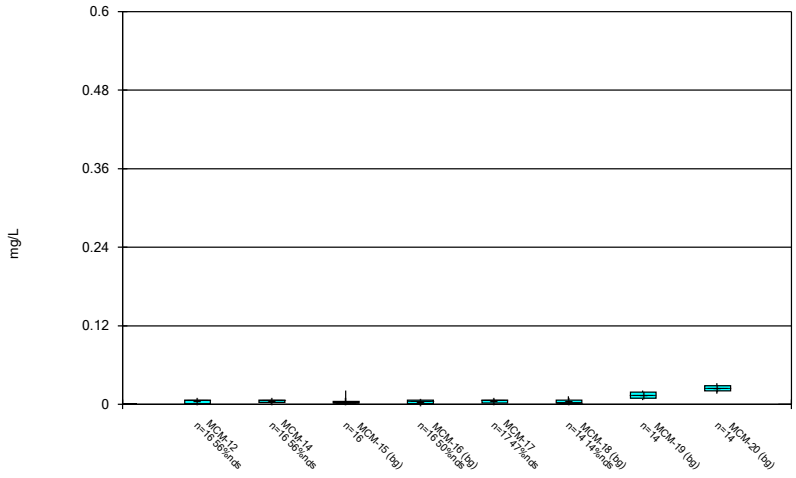


Constituent: Arsenic Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

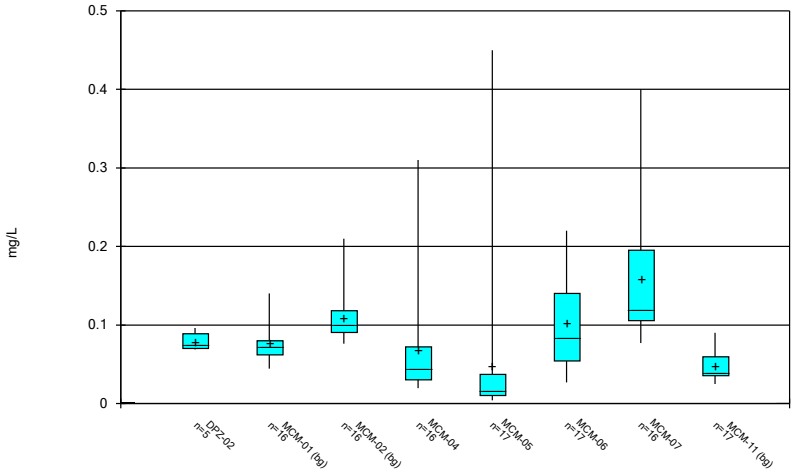
Box & Whiskers Plot



Constituent: Arsenic Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot

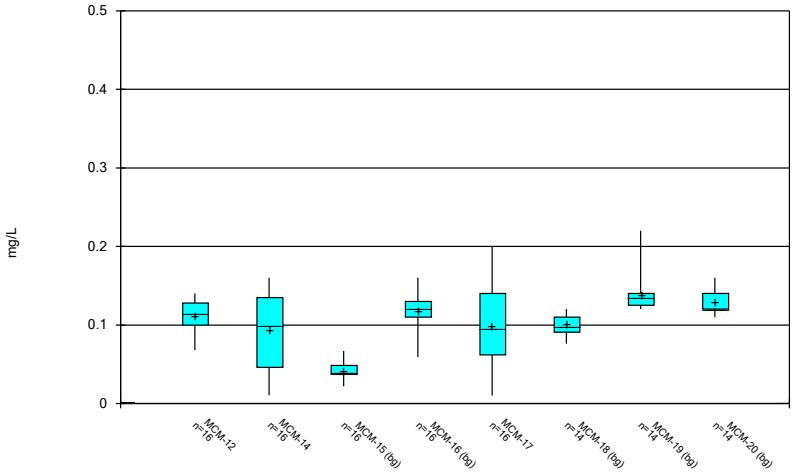


Constituent: Barium Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Box & Whiskers Plot

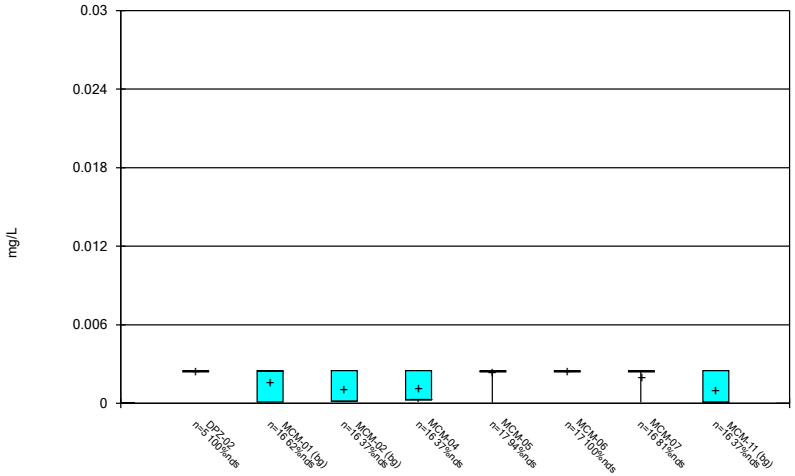


Constituent: Barium Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Box & Whiskers Plot

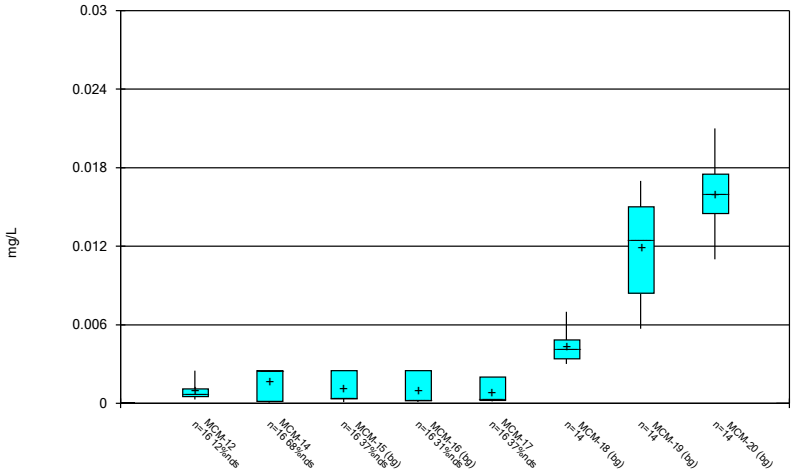


Constituent: Beryllium Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

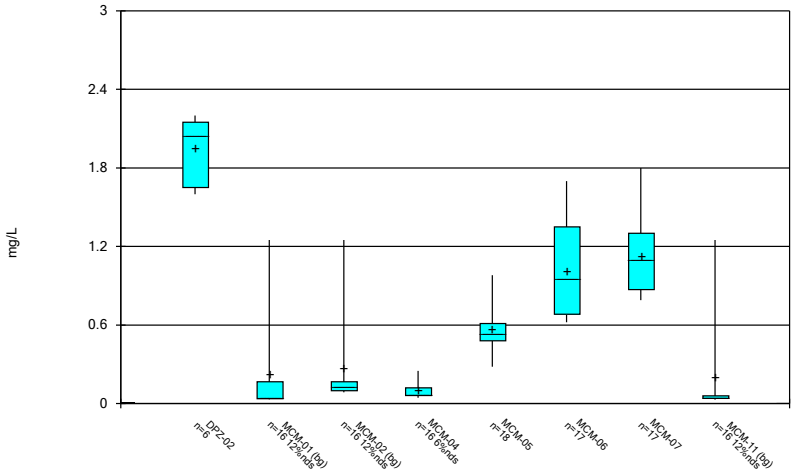
Box & Whiskers Plot



Constituent: Beryllium Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot

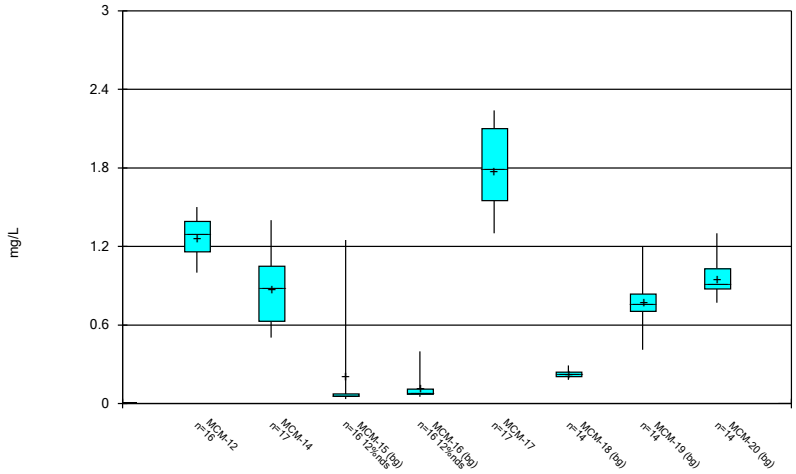


Constituent: Boron Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Box & Whiskers Plot

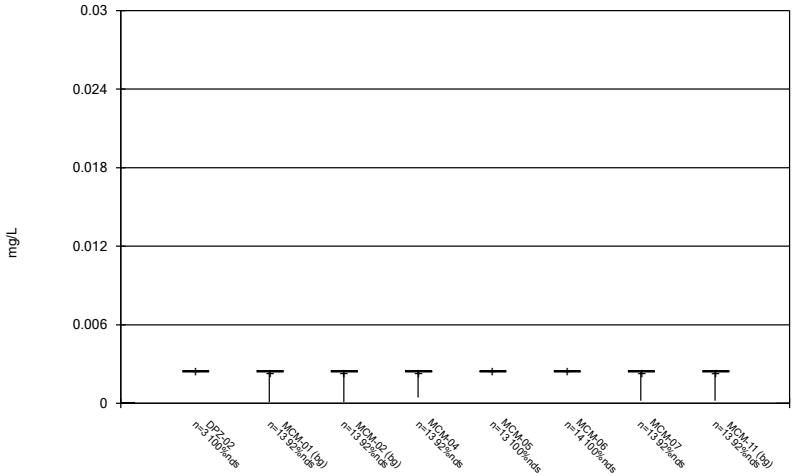


Constituent: Boron Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Box & Whiskers Plot

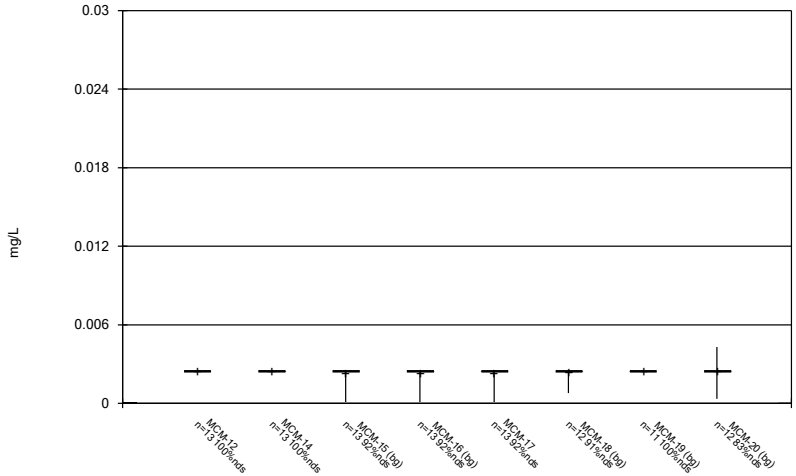


Constituent: Cadmium Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

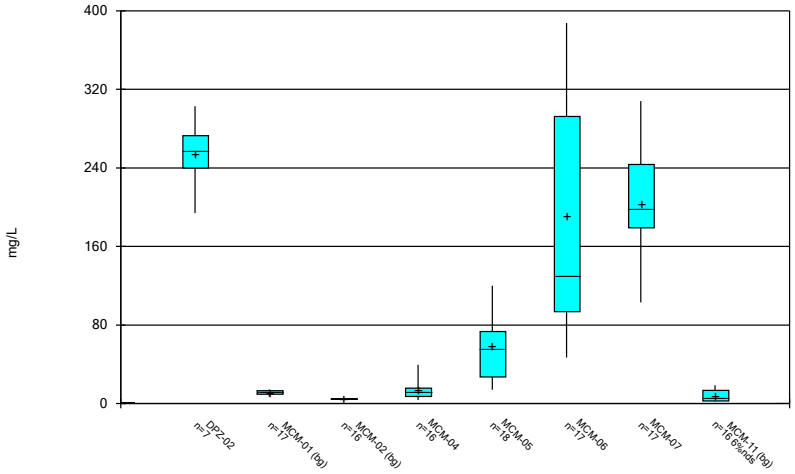
Box & Whiskers Plot



Constituent: Cadmium Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot

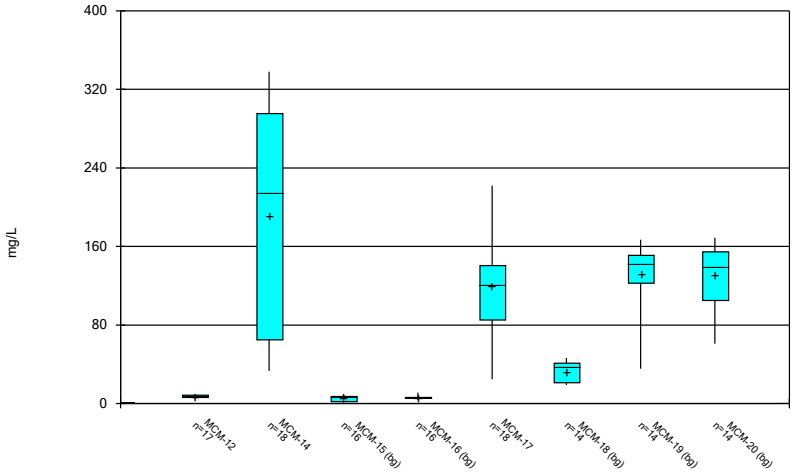


Constituent: Calcium Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Box & Whiskers Plot

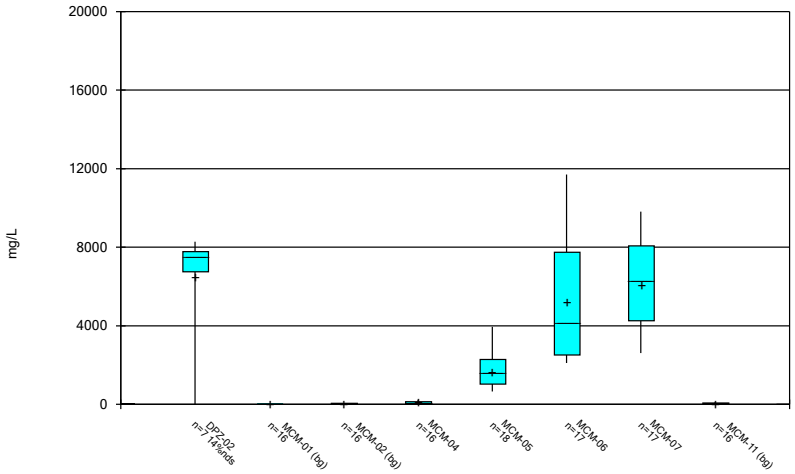


Constituent: Calcium Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Box & Whiskers Plot

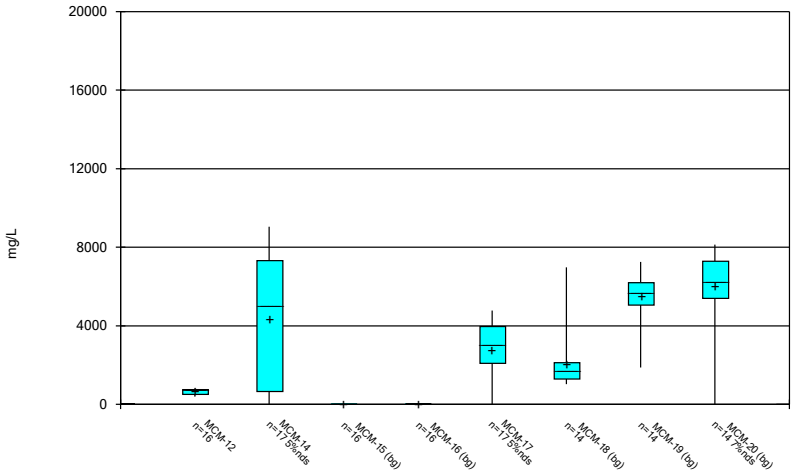


Constituent: Chloride Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

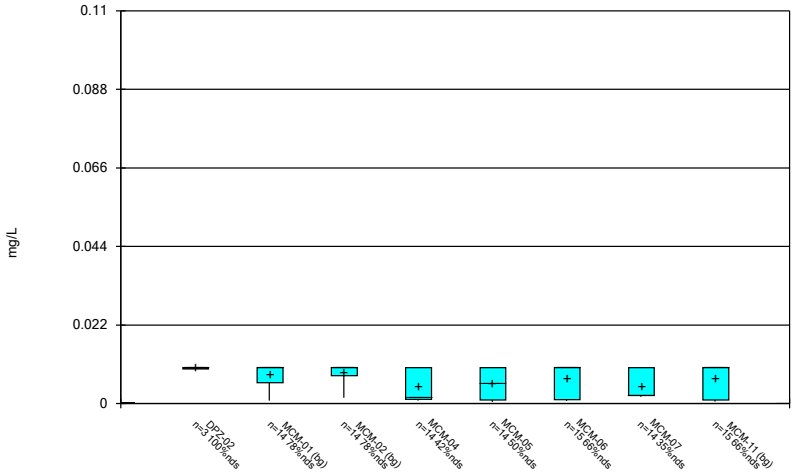
Box & Whiskers Plot



Constituent: Chloride Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot

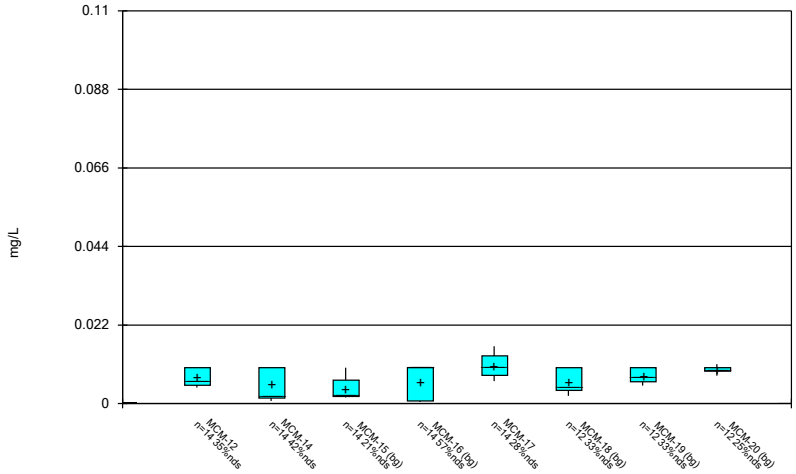


Constituent: Chromium Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Box & Whiskers Plot

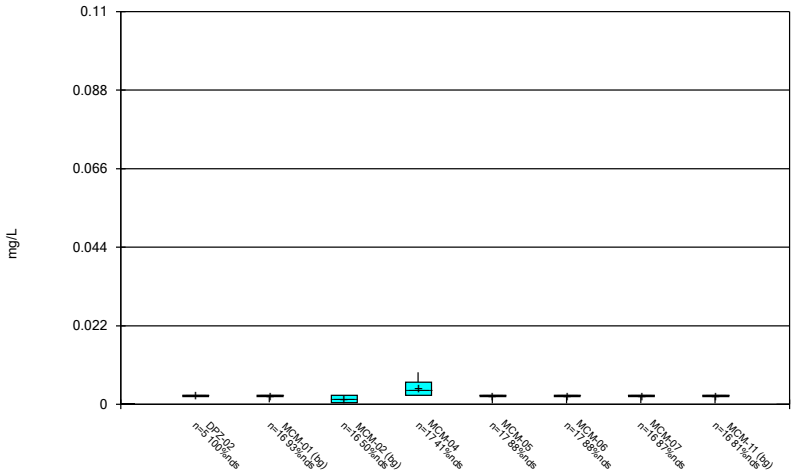


Constituent: Chromium Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Box & Whiskers Plot

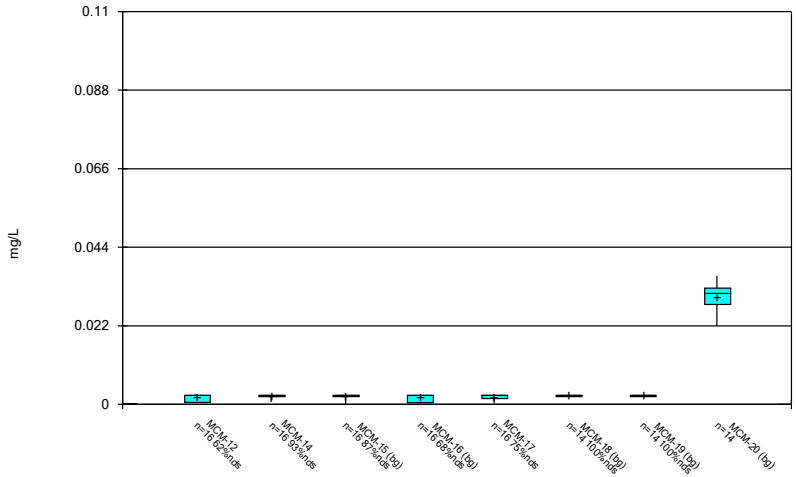


Constituent: Cobalt Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

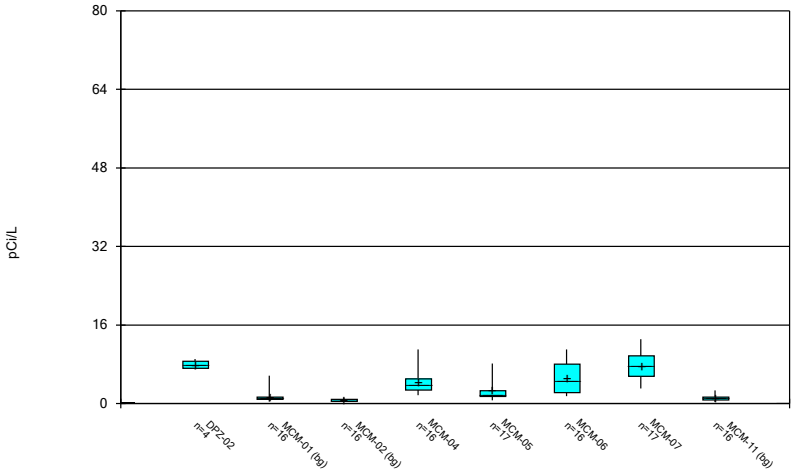
Box & Whiskers Plot



Constituent: Cobalt Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

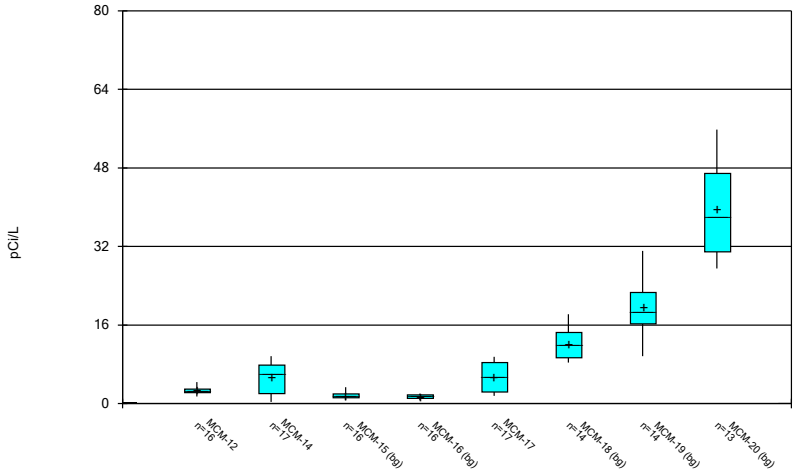
Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 12/22/2022 12:06 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

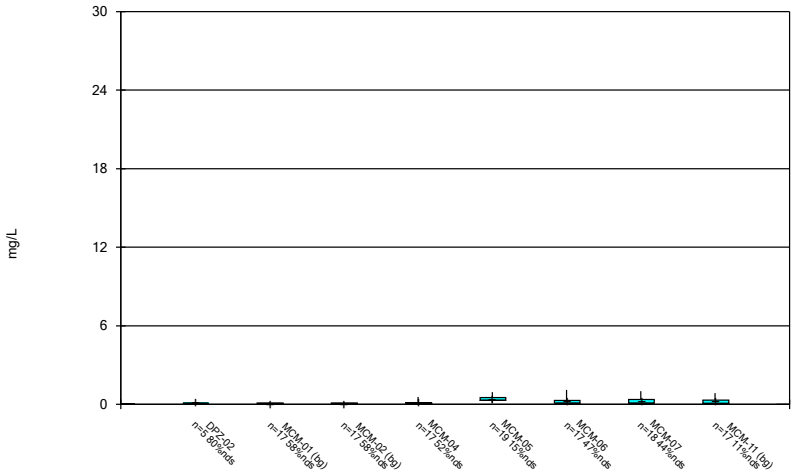
Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 12/22/2022 12:06 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

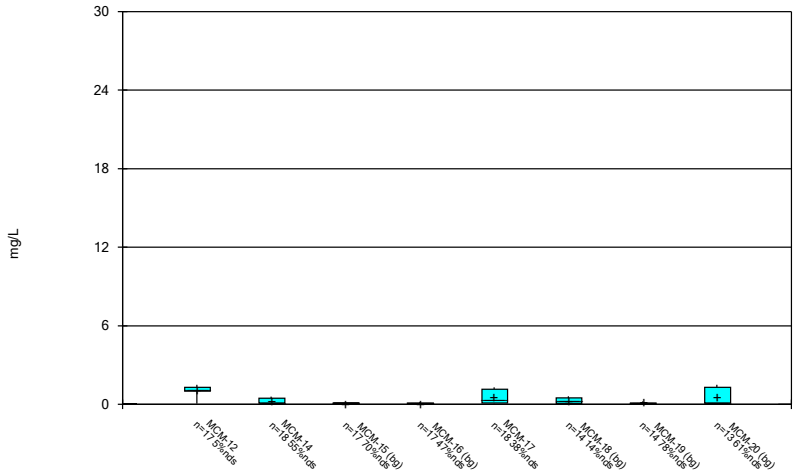
Box & Whiskers Plot



Constituent: Fluoride Analysis Run 12/22/2022 12:06 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

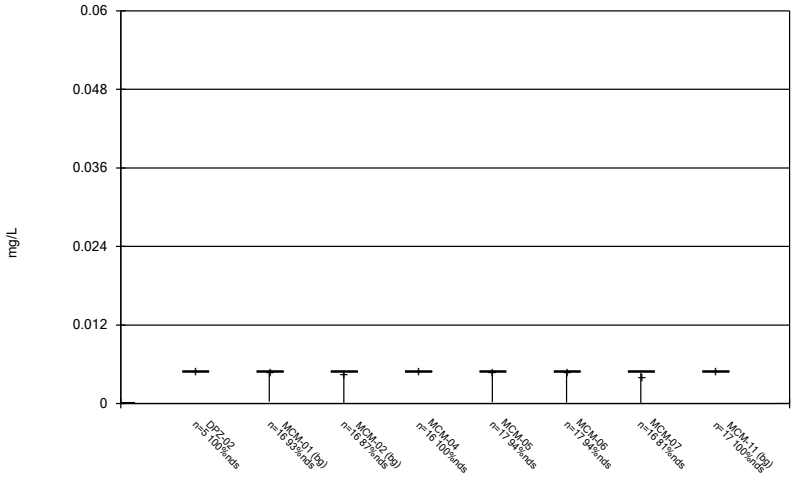
Box & Whiskers Plot



Constituent: Fluoride Analysis Run 12/22/2022 12:06 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Box & Whiskers Plot

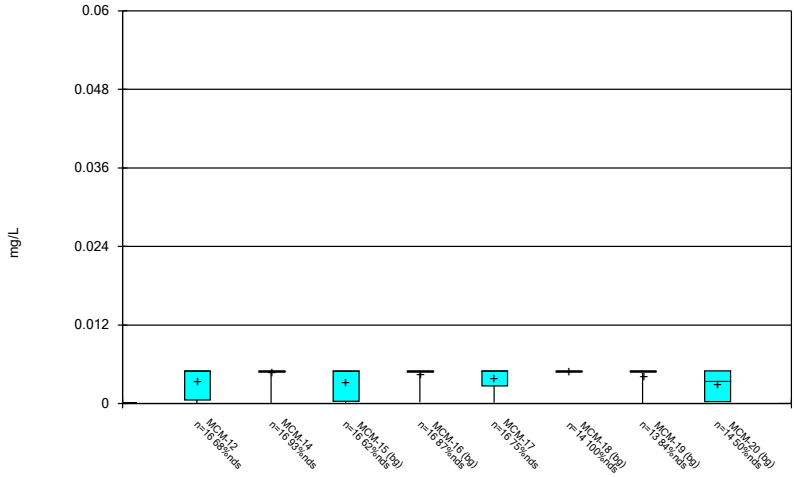


Constituent: Lead Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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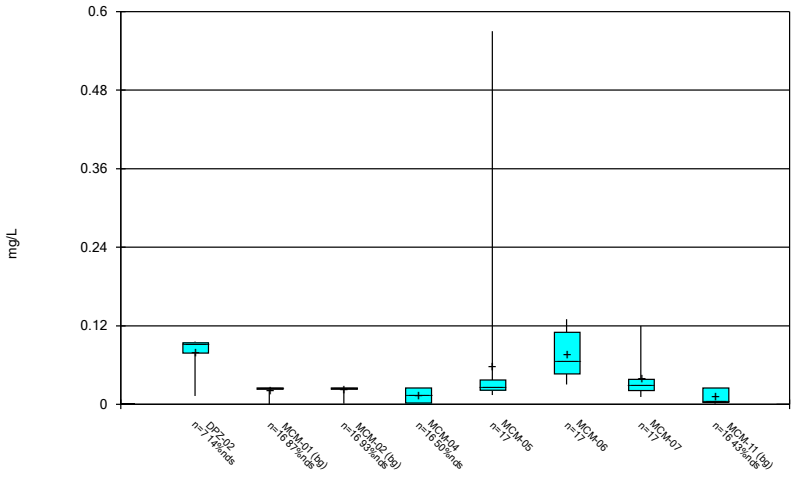
Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Lithium Analysis Run 12/22/2022 12:06 PM

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Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

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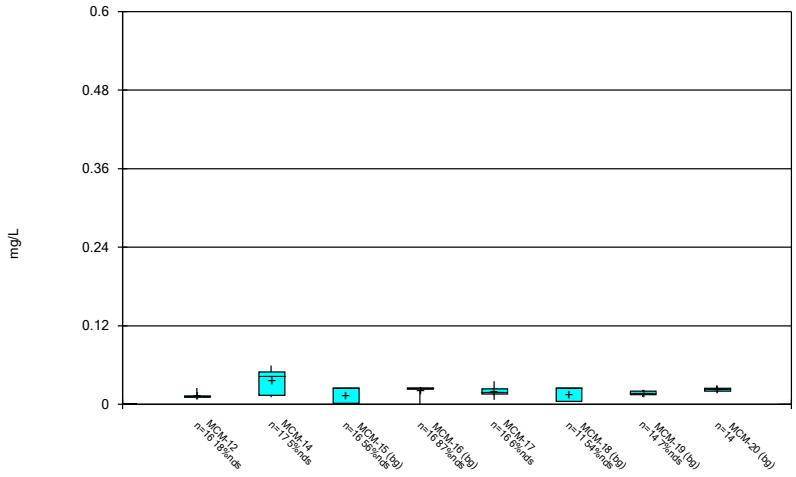

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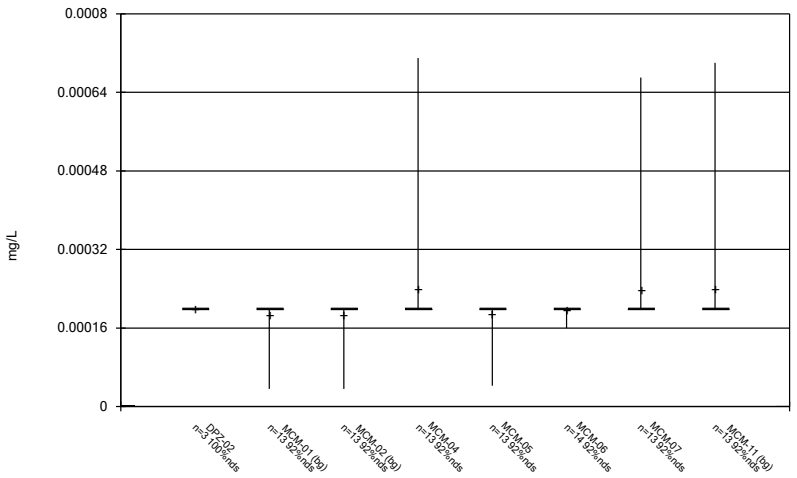
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Box & Whiskers Plot

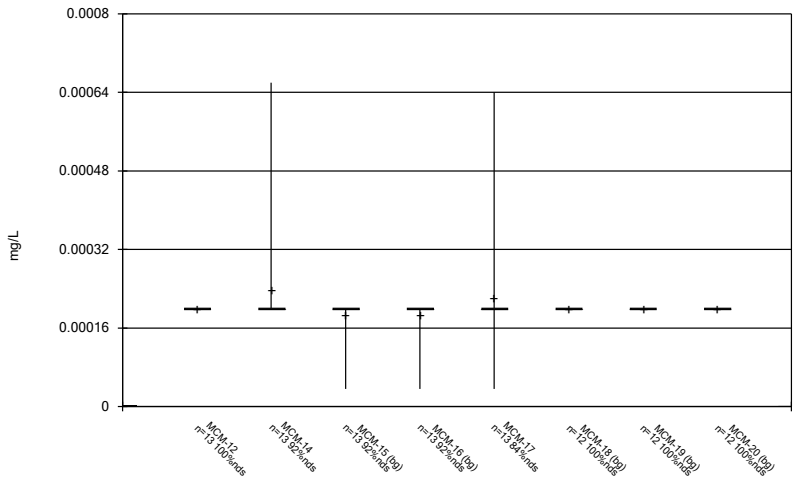


Constituent: Mercury Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Box & Whiskers Plot

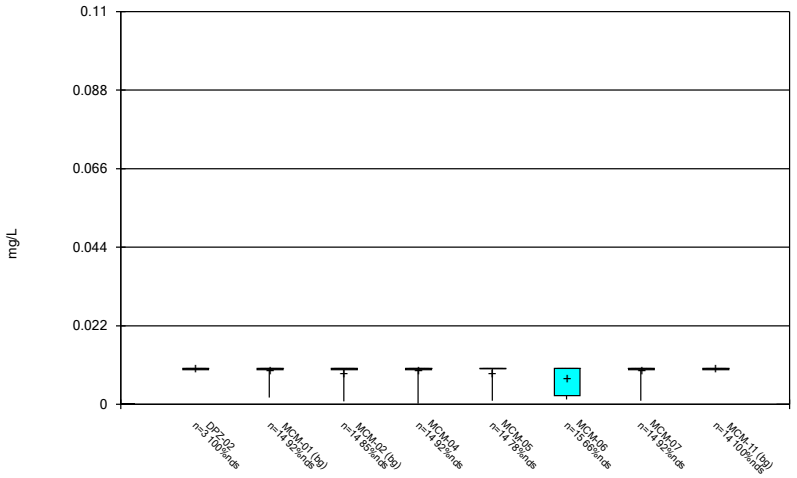


Constituent: Mercury Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Box & Whiskers Plot

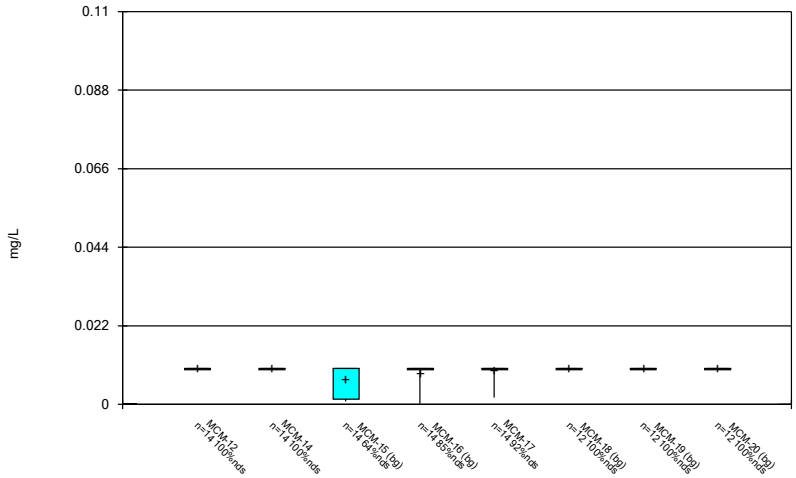


Constituent: Molybdenum Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

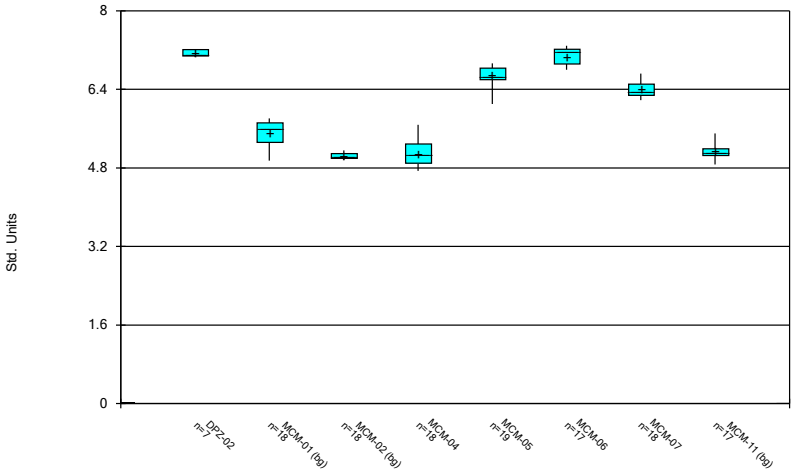
Box & Whiskers Plot



Constituent: Molybdenum Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot

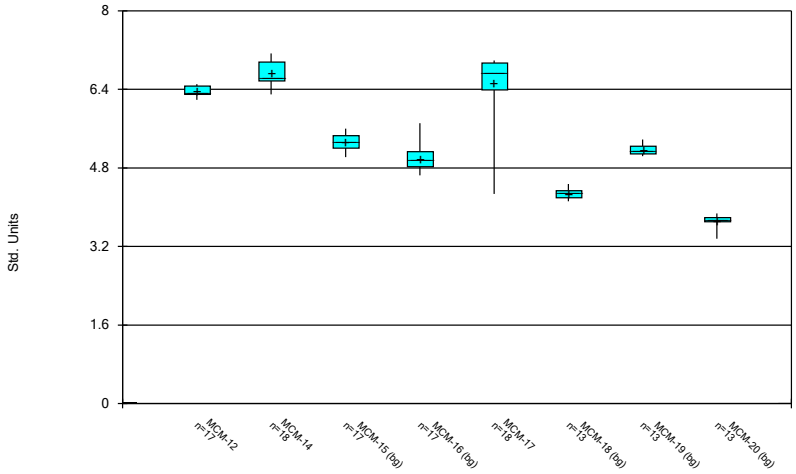


Constituent: pH, field Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Box & Whiskers Plot

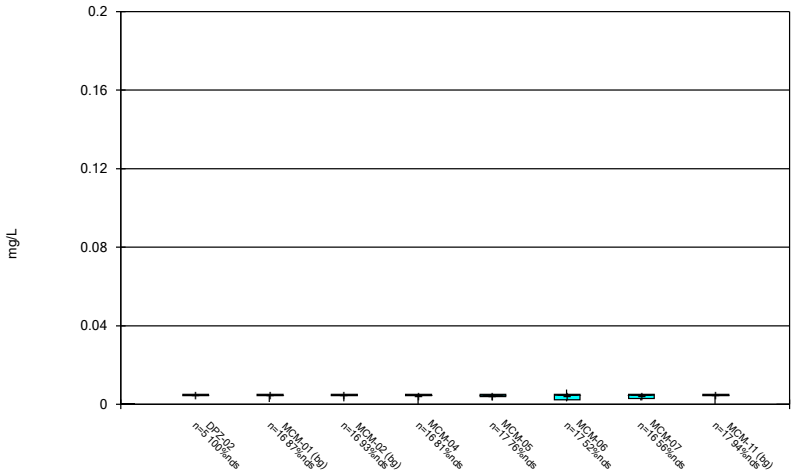


Constituent: pH, field Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Box & Whiskers Plot

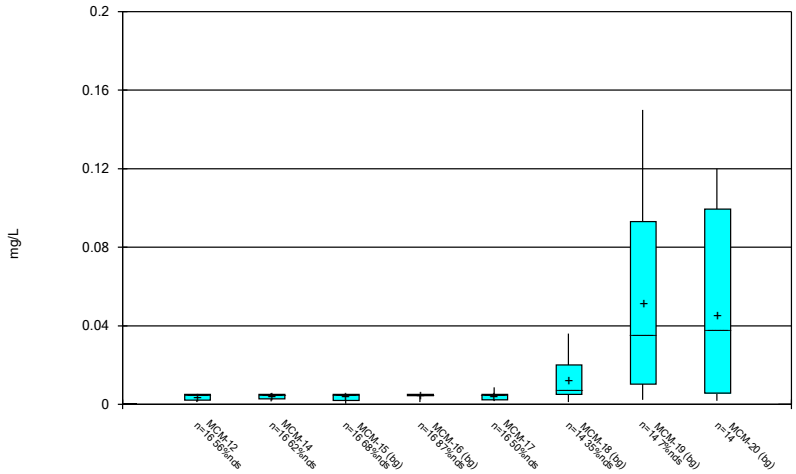


Constituent: Selenium Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

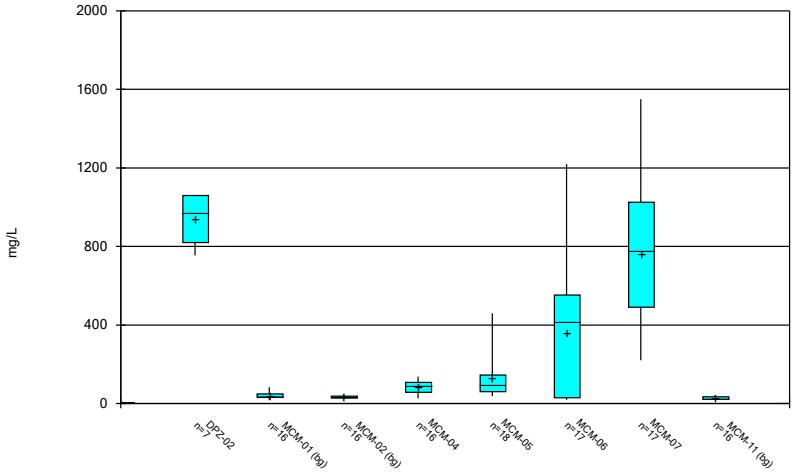
Box & Whiskers Plot



Constituent: Selenium Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot

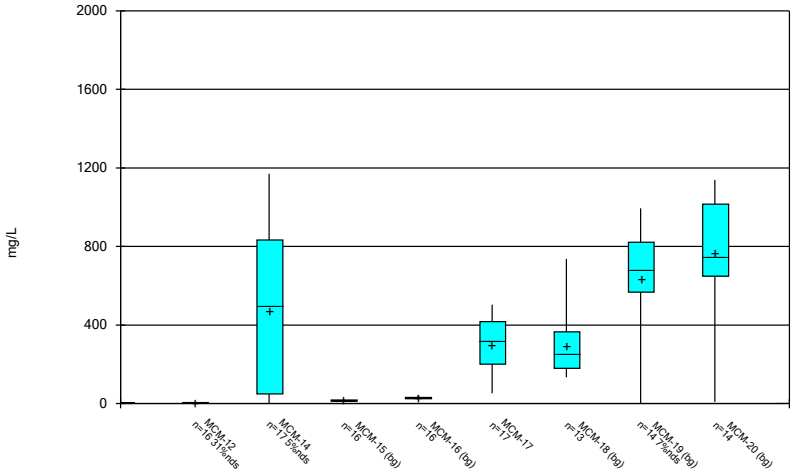


Constituent: Sulfate Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Box & Whiskers Plot

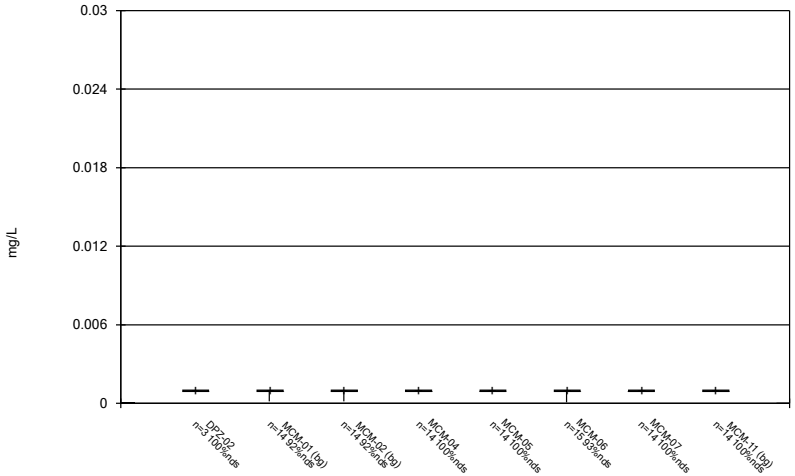


Constituent: Sulfate Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Box & Whiskers Plot

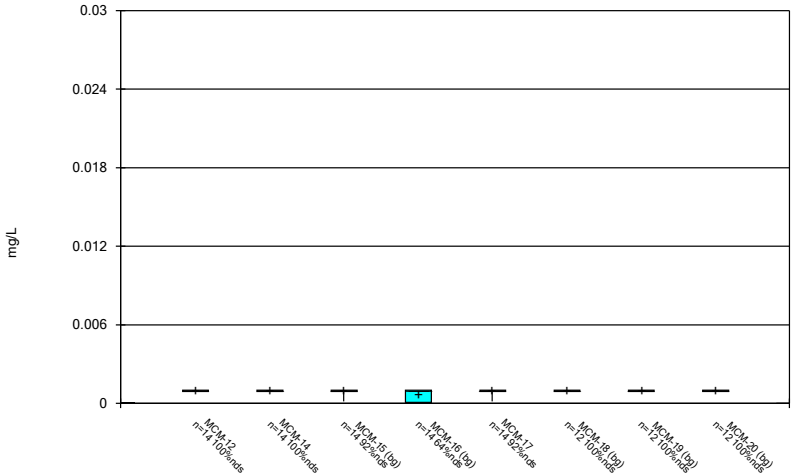


Constituent: Thallium Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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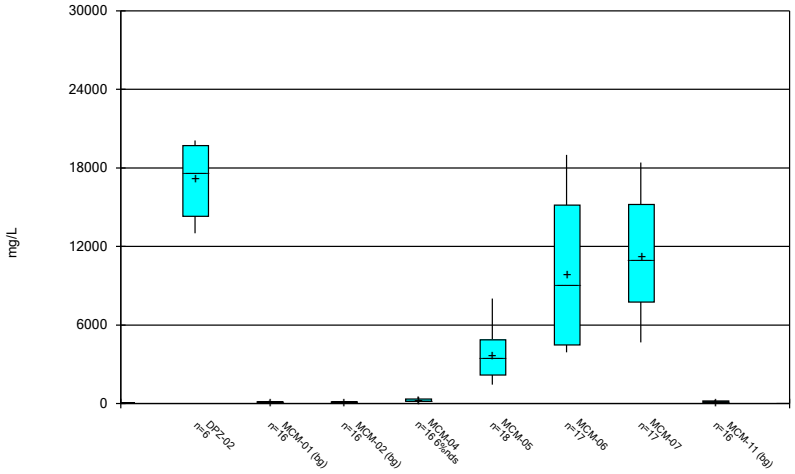
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot

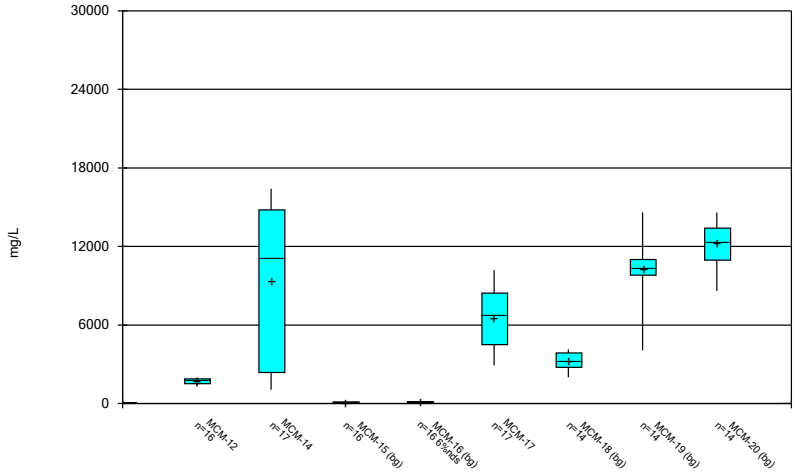


Constituent: Total Dissolved Solids Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 12/22/2022 12:06 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

FIGURE C.

Outlier Summary

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/6/2022, 5:07 PM

	MCM-19 Cadmium (mg/L)	MCM-20 Combined Radium 226 + 228 (pCi/L)	MCM-06 Fluoride (mg/L)	MCM-20 Fluoride (mg/L)	MCM-19 Lead (mg/L)	MCM-18 Lithium (mg/L)
11/7/2018			10.3 (o)			
11/18/2019						<0.025 (o)
1/21/2020						<0.025 (o)
2/4/2020						<0.025 (o)
2/13/2020		76.3 (o)			<0.0063 (o)	
9/20/2022	0.0083 (o)			4.3 (oJ)		

FIGURE D.

Interwell Prediction Limits - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/8/2022, 4:15 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**MCM-17**	**1.3**	**n/a**	**9/21/2022**	**1.8**	**Yes**	**122**	**n/a**	**n/a**	**8.197**	**n/a**	**n/a**	**0.0001314**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**MCM-07**	**169**	**n/a**	**9/21/2022**	**190**	**Yes**	**123**	**n/a**	**n/a**	**0.813**	**n/a**	**n/a**	**0.0001296**	**NP Inter (normality) 1 of 2**
pH, field (Std. Units)	**MCM-05**	**5.81**	**3.36**	**9/21/2022**	**6.93**	**Yes**	**126**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0002486**	**NP Inter (normality) 1 of 2**
pH, field (Std. Units)	**MCM-06**	**5.81**	**3.36**	**9/20/2022**	**7.29**	**Yes**	**126**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0002486**	**NP Inter (normality) 1 of 2**
pH, field (Std. Units)	**MCM-07**	**5.81**	**3.36**	**9/21/2022**	**6.27**	**Yes**	**126**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0002486**	**NP Inter (normality) 1 of 2**
pH, field (Std. Units)	**MCM-12**	**5.81**	**3.36**	**9/21/2022**	**6.3**	**Yes**	**126**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0002486**	**NP Inter (normality) 1 of 2**
pH, field (Std. Units)	**MCM-14**	**5.81**	**3.36**	**9/21/2022**	**6.61**	**Yes**	**126**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0002486**	**NP Inter (normality) 1 of 2**
pH, field (Std. Units)	**MCM-17**	**5.81**	**3.36**	**9/21/2022**	**6.72**	**Yes**	**126**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0002486**	**NP Inter (normality) 1 of 2**

Interwell Prediction Limits - All Results

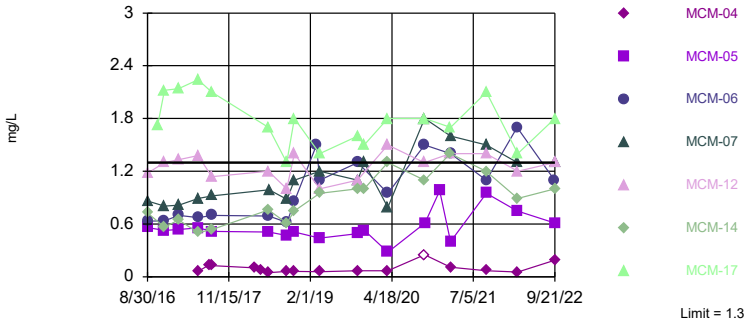
Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/8/2022, 4:15 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MCM-04	1.3	n/a	9/21/2022	0.19J	No	122	n/a	n/a	8.197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-05	1.3	n/a	9/21/2022	0.61	No	122	n/a	n/a	8.197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-06	1.3	n/a	9/20/2022	1.1	No	122	n/a	n/a	8.197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-07	1.3	n/a	9/21/2022	1.3	No	122	n/a	n/a	8.197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-12	1.3	n/a	9/21/2022	1.3	No	122	n/a	n/a	8.197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-14	1.3	n/a	9/21/2022	1	No	122	n/a	n/a	8.197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Boron (mg/L)	**MCM-17**	**1.3**	**n/a**	**9/21/2022**	**1.8**	**Yes**	**122**	**n/a**	**n/a**	**8.197**	**n/a**	**n/a**	**0.0001314**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	MCM-04	169	n/a	9/21/2022	7.8	No	123	n/a	n/a	0.813	n/a	n/a	0.0001296	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-05	169	n/a	9/21/2022	28	No	123	n/a	n/a	0.813	n/a	n/a	0.0001296	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-06	169	n/a	9/20/2022	47	No	123	n/a	n/a	0.813	n/a	n/a	0.0001296	NP Inter (normality) 1 of 2
Calcium (mg/L)	**MCM-07**	**169**	**n/a**	**9/21/2022**	**190**	**Yes**	**123**	**n/a**	**n/a**	**0.813**	**n/a**	**n/a**	**0.0001296**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	MCM-12	169	n/a	9/21/2022	4.7	No	123	n/a	n/a	0.813	n/a	n/a	0.0001296	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-14	169	n/a	9/21/2022	74	No	123	n/a	n/a	0.813	n/a	n/a	0.0001296	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-17	169	n/a	9/21/2022	110	No	123	n/a	n/a	0.813	n/a	n/a	0.0001296	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-04	8130	n/a	9/21/2022	47	No	122	n/a	n/a	0.8197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-05	8130	n/a	9/21/2022	1100	No	122	n/a	n/a	0.8197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-06	8130	n/a	9/20/2022	2800	No	122	n/a	n/a	0.8197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-07	8130	n/a	9/21/2022	6400	No	122	n/a	n/a	0.8197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-12	8130	n/a	9/21/2022	400	No	122	n/a	n/a	0.8197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-14	8130	n/a	9/21/2022	3300	No	122	n/a	n/a	0.8197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-17	8130	n/a	9/21/2022	3300	No	122	n/a	n/a	0.8197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-04	1.5	n/a	9/21/2022	0.1ND	No	126	n/a	n/a	50	n/a	n/a	0.0001243	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-05	1.5	n/a	9/21/2022	0.48	No	126	n/a	n/a	50	n/a	n/a	0.0001243	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-06	1.5	n/a	9/20/2022	1.1J	No	126	n/a	n/a	50	n/a	n/a	0.0001243	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-07	1.5	n/a	9/21/2022	0.18	No	126	n/a	n/a	50	n/a	n/a	0.0001243	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-12	1.5	n/a	9/21/2022	1.3	No	126	n/a	n/a	50	n/a	n/a	0.0001243	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-14	1.5	n/a	9/21/2022	0.12	No	126	n/a	n/a	50	n/a	n/a	0.0001243	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-17	1.5	n/a	9/21/2022	0.78	No	126	n/a	n/a	50	n/a	n/a	0.0001243	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-04	5.81	3.36	9/21/2022	5.34	No	126	n/a	n/a	0	n/a	n/a	0.0002486	NP Inter (normality) 1 of 2
pH, field (Std. Units)	**MCM-05**	**5.81**	**3.36**	**9/21/2022**	**6.93**	**Yes**	**126**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0002486**	**NP Inter (normality) 1 of 2**
pH, field (Std. Units)	**MCM-06**	**5.81**	**3.36**	**9/20/2022**	**7.29**	**Yes**	**126**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0002486**	**NP Inter (normality) 1 of 2**
pH, field (Std. Units)	**MCM-07**	**5.81**	**3.36**	**9/21/2022**	**6.27**	**Yes**	**126**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0002486**	**NP Inter (normality) 1 of 2**
pH, field (Std. Units)	**MCM-12**	**5.81**	**3.36**	**9/21/2022**	**6.3**	**Yes**	**126**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0002486**	**NP Inter (normality) 1 of 2**
pH, field (Std. Units)	**MCM-14**	**5.81**	**3.36**	**9/21/2022**	**6.61**	**Yes**	**126**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0002486**	**NP Inter (normality) 1 of 2**
pH, field (Std. Units)	**MCM-17**	**5.81**	**3.36**	**9/21/2022**	**6.72**	**Yes**	**126**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0002486**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	MCM-04	1140	n/a	9/21/2022	52	No	121	n/a	n/a	0.8264	n/a	n/a	0.0001331	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-05	1140	n/a	9/21/2022	100	No	121	n/a	n/a	0.8264	n/a	n/a	0.0001331	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-06	1140	n/a	9/20/2022	320	No	121	n/a	n/a	0.8264	n/a	n/a	0.0001331	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-07	1140	n/a	9/21/2022	660	No	121	n/a	n/a	0.8264	n/a	n/a	0.0001331	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-12	1140	n/a	9/21/2022	0.5ND	No	121	n/a	n/a	0.8264	n/a	n/a	0.0001331	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-14	1140	n/a	9/21/2022	270	No	121	n/a	n/a	0.8264	n/a	n/a	0.0001331	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-17	1140	n/a	9/21/2022	330	No	121	n/a	n/a	0.8264	n/a	n/a	0.0001331	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-04	14600	n/a	9/21/2022	180	No	122	n/a	n/a	0.8197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-05	14600	n/a	9/21/2022	2100	No	122	n/a	n/a	0.8197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-06	14600	n/a	9/20/2022	3900	No	122	n/a	n/a	0.8197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-07	14600	n/a	9/21/2022	9400	No	122	n/a	n/a	0.8197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-12	14600	n/a	9/21/2022	1300	No	122	n/a	n/a	0.8197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-14	14600	n/a	9/21/2022	7400	No	122	n/a	n/a	0.8197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-17	14600	n/a	9/21/2022	6200	No	122	n/a	n/a	0.8197	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.
Exceeds Limit: MCM-17

Prediction Limit

Interwell Non-parametric



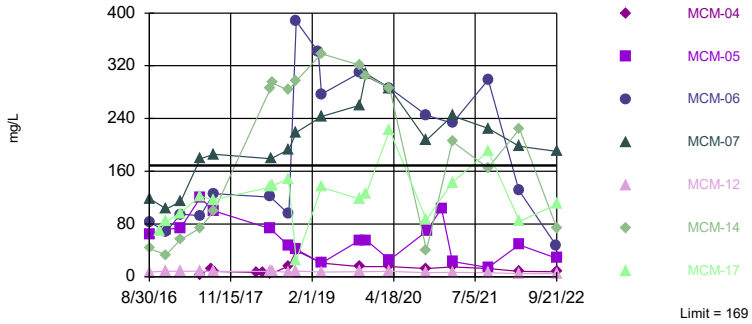
Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 122 background values. 8.197% NDs. Annual per-constituent alpha = 0.001838. Individual comparison alpha = 0.0001314 (1 of 2). Comparing 7 points to limit.

Constituent: Boron Analysis Run 12/8/2022 4:13 PM View: Appendix III - Interwell
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Exceeds Limit: MCM-07

Prediction Limit

Interwell Non-parametric



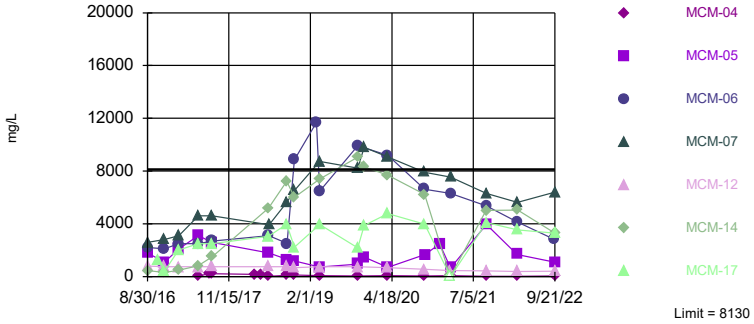
Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 123 background values. 0.813% NDs. Annual per-constituent alpha = 0.001813. Individual comparison alpha = 0.0001296 (1 of 2). Comparing 7 points to limit.

Constituent: Calcium Analysis Run 12/8/2022 4:13 PM View: Appendix III - Interwell
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Interwell Non-parametric



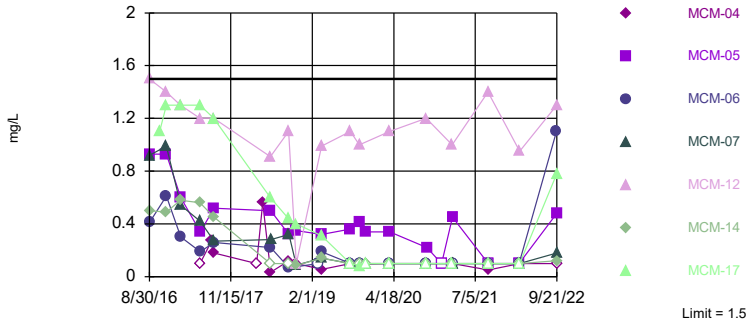
Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 122 background values. 0.8197% NDs. Annual per-constituent alpha = 0.001838. Individual comparison alpha = 0.0001314 (1 of 2). Comparing 7 points to limit.

Constituent: Chloride Analysis Run 12/8/2022 4:13 PM View: Appendix III - Interwell
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 126 background values. 50% NDs. Annual per-constituent alpha = 0.001739. Individual comparison alpha = 0.0001243 (1 of 2). Comparing 7 points to limit.

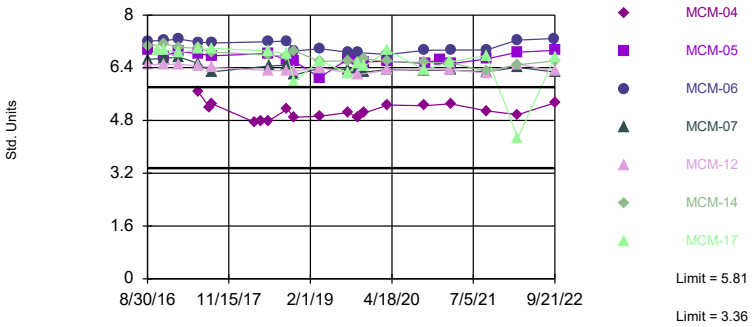
Constituent: Fluoride Analysis Run 12/8/2022 4:13 PM View: Appendix III - Interwell
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Exceeds Limits: MCM-05, MCM-06, MCM-07, MCM-12, MCM-14, MCM-17

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 126 background values. Annual per-constituent alpha = 0.003478. Individual comparison alpha = 0.0002486 (1 of 2). Comparing 7 points to limit.

Constituent: pH, field Analysis Run 12/8/2022 4:13 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

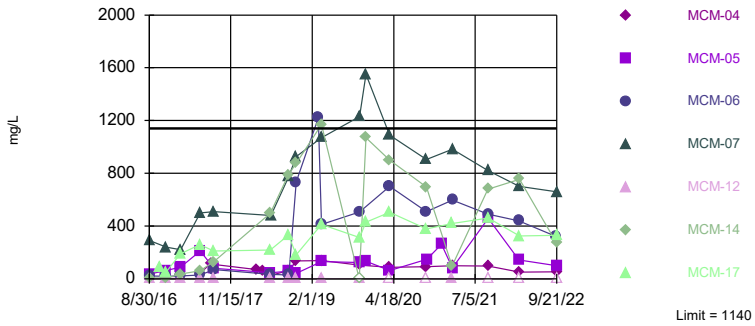
Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 121 background values. 0.8264% NDs. Annual per-constituent alpha = 0.001862. Individual comparison alpha = 0.0001331 (1 of 2). Comparing 7 points to limit.

Constituent: Sulfate Analysis Run 12/8/2022 4:13 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

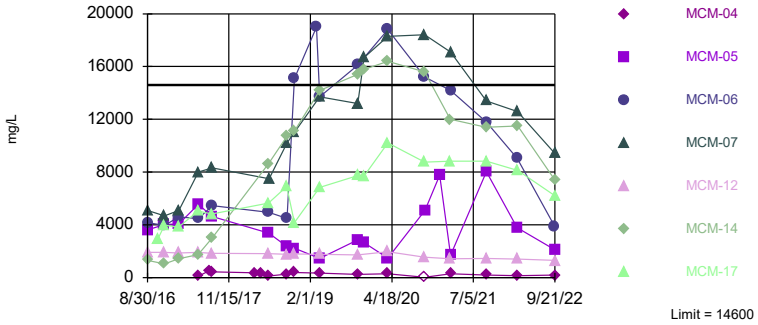
Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 122 background values. 0.8197% NDs. Annual per-constituent alpha = 0.001838. Individual comparison alpha = 0.0001314 (1 of 2). Comparing 7 points to limit.

Constituent: Total Dissolved Solids Analysis Run 12/8/2022 4:13 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-16 (bg)	MCM-14	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
8/30/2016	0.0325 (J)	1.18	0.0972 (J)	0.726					
8/31/2016					0.56	0.632	0.863		
10/25/2016								1.73	
11/30/2016	0.0334 (J)	1.3	0.0964	0.565	0.529	0.637	0.804	2.12	
2/15/2017	0.254	1.33	0.398	0.647				2.14	
2/16/2017					0.539	0.698	0.815		
5/31/2017		1.38		0.503				2.24	0.0521
6/1/2017	0.0564		0.0776						
6/2/2017					0.555	0.674	0.891		
8/2/2017									0.0392 (J)
8/15/2017		1.14						2.1	0.0448
8/16/2017	0.0435			0.539					
8/17/2017			0.0853		0.516	0.7	0.922		
4/4/2018									0.046
4/5/2018									
5/8/2018									0.048
5/9/2018									
6/19/2018	0.04 (J)	1.2		0.76				1.7	0.04
6/20/2018			0.079		0.51	0.69			
6/21/2018							0.99		
9/25/2018		1		0.61					0.043
9/26/2018	0.038 (J)		0.072					1.3	
9/27/2018					0.47	0.62	0.88		
11/6/2018				0.75			1.1	1.8	0.046
11/7/2018	0.037 (J)	1.4	0.074		0.51	0.86			
3/6/2019						1.5			
3/24/2019		1		0.95	0.44	1.1	1.2	1.4	
3/25/2019	0.038 (J)		0.067						0.03 (J)
10/15/2019		1.1		1					
10/16/2019	0.036 (J)		0.051		0.49			1.6	0.032 (J)
10/17/2019						1.3	1.1		
11/7/2019									
11/18/2019									
11/19/2019									
11/20/2019					0.53		1.3		
11/21/2019				1				1.5	
12/4/2019									
12/5/2019									
12/17/2019									
12/18/2019									
1/8/2020									
1/9/2020									
1/21/2020									
2/4/2020									
2/13/2020									
3/26/2020	0.064 (J)								
3/27/2020		1.5	0.088 (J)	1.3				1.8	0.058 (J)
3/28/2020					0.28 (J)	0.95	0.79		
10/12/2020		1.3							<0.5
10/13/2020	<0.5		<0.5	1.1				1.8	
10/14/2020						1.5	1.8		
10/15/2020					0.61				

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-16 (bg)	MCM-14	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
1/4/2021					0.98				
3/2/2021		1.4 (J)		1.4 (J)					
3/3/2021	<0.5		<0.5					1.7 (J)	<0.5
3/4/2021					0.4 (J)	1.4 (J)	1.6 (J)		
9/13/2021		1.4 (M1)		1.2					
9/14/2021	0.079 (J)		0.071 (J)		0.95 (J)	1.1	1.5	2.1 (M1)	0.06 (J)
3/1/2022					0.75 (J)	1.7			
3/2/2022	0.048 (J)						1.3		0.038 (J)
3/3/2022		1.2	0.057	0.89 (J)				1.4	
9/20/2022						1.1			
9/21/2022	0.35 (J)	1.3	0.12 (J)	1	0.61		1.3	1.8	0.17 (J)

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-20 (bg)	MCM-19 (bg)	MCM-18 (bg)
8/30/2016						
8/31/2016						
10/25/2016						
11/30/2016						
2/15/2017						
2/16/2017						
5/31/2017	0.161					
6/1/2017		0.0608				
6/2/2017			0.0495			
8/2/2017	0.158	0.137	0.0333 (J)			
8/15/2017						
8/16/2017	0.148					
8/17/2017		0.128	0.0593			
4/4/2018		0.1	0.065			
4/5/2018	0.13					
5/8/2018		0.074	0.062			
5/9/2018	0.12					
6/19/2018	0.13		0.064			
6/20/2018		0.045				
6/21/2018						
9/25/2018						
9/26/2018	0.1		0.06			
9/27/2018		0.06				
11/6/2018		0.06				
11/7/2018	0.1		0.062 (J)			
3/6/2019						
3/24/2019						
3/25/2019	0.091	0.058	0.057			
10/15/2019		0.068	0.046			
10/16/2019	0.085					
10/17/2019						
11/7/2019				1.1	0.84	0.27
11/18/2019						0.29 (J)
11/19/2019				1.3	0.83	
11/20/2019						
11/21/2019						
12/4/2019				0.81	0.68	
12/5/2019						0.23
12/17/2019					0.57	
12/18/2019				0.77		0.23
1/8/2020				0.9	0.73	
1/9/2020						0.2
1/21/2020				0.94	0.75	0.24 (J)
2/4/2020				0.96 (J)	0.79 (J)	0.24 (J)
2/13/2020				0.88	0.74	0.22
3/26/2020						
3/27/2020	0.17 (J)		0.076 (J)	0.94	0.96	0.24 (J)
3/28/2020		0.067 (J)				
10/12/2020						0.24 (J)
10/13/2020	<0.5	<0.5	<0.5	1.1	0.73	
10/14/2020						
10/15/2020						

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-20 (bg)	MCM-19 (bg)	MCM-18 (bg)
1/4/2021						
3/2/2021			<0.5			
3/3/2021	<0.5			0.91 (J)	0.79 (J)	0.21 (J)
3/4/2021		0.11 (J)				
9/13/2021						
9/14/2021	0.093 (J)	0.07 (J)	0.068 (J)	0.91 (J)	1.2	0.2 (J)
3/1/2022				0.87 (J)	0.41 (J)	
3/2/2022	0.086		0.054			0.23 (J)
3/3/2022		0.053				
9/20/2022				0.9	0.77	0.18 (J)
9/21/2022	0.23 (J)	0.19 (J)	0.14 (J)			

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-16 (bg)	MCM-14	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
8/30/2016	7.3	7.05	4.02	42.8					
8/31/2016					65	82.8	119		
10/25/2016								69.4	
11/30/2016	10.8	8.69	4.87	33.2	71.7	68.7	103	83.9	
2/15/2017	14.3	8.34	6.61	56.1				96.3	
2/16/2017					74	94.8	114		
5/31/2017		8.85		73.6				122	18.6
6/1/2017	12.7 (J)		6.42						
6/2/2017					120	92.5	179		
8/2/2017									18.5
8/15/2017		8.05						117	4.09
8/16/2017	8.7			99.6					
8/17/2017			5.62		100	126	186		
4/4/2018									<25
4/5/2018									
5/8/2018									18.4 (J)
5/9/2018									
6/19/2018	11.6 (J)	8.3		285				136	4.3
6/20/2018			5.7		72.8	121			
6/21/2018							179		
6/28/2018	13	8.9		294				138	
9/25/2018		6.8		283					6.2 (D)
9/26/2018	12.8 (J)		5.3					148	
9/27/2018					46.6	95.1	193		
11/6/2018				297			219	24.7	1.8
11/7/2018	11.9	8.5	5.3		41.8	387.5 (D)			
3/6/2019						341			
3/24/2019		7.4		338	20.9 (J)	277	243	136	
3/25/2019	12.6 (J)		5.7						2.5 (D)
10/15/2019		7.9		321					
10/16/2019	13.6		4.8		55.2			118	2.2
10/17/2019						309	260		
11/7/2019									
11/18/2019									
11/19/2019									
11/20/2019					55.8		308		
11/21/2019				305				125	
12/4/2019									
12/5/2019									
12/17/2019									
12/18/2019									
1/8/2020									
1/9/2020									
1/21/2020									
2/4/2020									
2/13/2020									
3/26/2020	10.1								
3/27/2020		8.3	5.4	286				222	3.3
3/28/2020					25.8	286	286		
10/12/2020		6.1							2.8
10/13/2020	9.8		5.7	40.9				86.4	
10/14/2020						245	207		

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-16 (bg)	MCM-14	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
10/15/2020					69.1				
1/4/2021					104				
3/3/2021	14								
3/4/2021		6.5	11.2	205	23.4	233	244	143	2.1
9/13/2021		6		165					
9/14/2021	9.6		6.5		13.9	299	225	190	14
3/1/2022					48.4	131			
3/2/2022	8.2						198		6.8
3/3/2022		4.6	5.4	224				84	
9/20/2022						47			
9/21/2022	9.2	4.7	4.6	74	28		190	110	7.6

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-19 (bg)	MCM-18 (bg)	MCM-20 (bg)
8/30/2016						
8/31/2016						
10/25/2016						
11/30/2016						
2/15/2017						
2/16/2017						
5/31/2017	5.9					
6/1/2017		3.65				
6/2/2017			2.77			
8/2/2017	4.69	12.4	1.27			
8/15/2017						
8/16/2017	5.25					
8/17/2017		8.17	5.53			
4/4/2018		6.8	6.5			
4/5/2018	5					
5/8/2018		5.7	6.7			
5/9/2018	4.7					
6/19/2018	4.8		7.4			
6/20/2018		4.3				
6/21/2018						
6/28/2018						
9/25/2018						
9/26/2018	4.6		8.5 (J)			
9/27/2018		16.4 (J)				
11/6/2018		39.5				
11/7/2018	4.6		9.8			
3/6/2019						
3/24/2019						
3/25/2019	4.7	20.8 (J)	7.8			
10/15/2019		15.5	6.7			
10/16/2019	4.9					
10/17/2019						
11/7/2019				158	46.2	163
11/18/2019					41.8	
11/19/2019				152		169
11/20/2019						
11/21/2019						
12/4/2019				142		140
12/5/2019					40.5	
12/17/2019				136		
12/18/2019					42	145
1/8/2020				147		157
1/9/2020					37.1	
1/21/2020				167	40.1	152
2/4/2020				142	36.2	139
2/13/2020				148	38.9	146
3/26/2020						
3/27/2020	4.9		5.9	122	23.2	113
3/28/2020		15.5				
10/12/2020					19.1	
10/13/2020	3.8	12.5	0.83	125		128
10/14/2020						

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-19 (bg)	MCM-18 (bg)	MCM-20 (bg)
10/15/2020						
1/4/2021						
3/3/2021	4					
3/4/2021		15.1	1.4	123	26	110
9/13/2021						
9/14/2021	4.2	12.5	6.7	93.6	18.8	61.1
3/1/2022				35.5		99.8
3/2/2022	4.1		7.2		22.3	
3/3/2022		8				
9/20/2022				150	20	100
9/21/2022	4.3	7.8	0.83			

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-16 (bg)	MCM-14	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
8/30/2016	9.7	800	26	450					
8/31/2016					1800	2200	2600		
10/25/2016								1300	
11/30/2016	19	760	27	310	1100	2100	2800	400	
2/15/2017	21	740	30	490				2000	
2/16/2017					2100	2500	3100		
5/31/2017		740		820				2500	98
6/1/2017	12		27						
6/2/2017					3100	2500	4600		
8/2/2017									57
8/15/2017		750						2500	15
8/16/2017	14			1500					
8/17/2017			32		2600	2700	4600		
4/4/2018									69
4/5/2018									
5/8/2018									72.3
5/9/2018									
6/19/2018	24.4	760		5180				3050	17.3
6/20/2018			30		1800	3100			
6/21/2018							3920		
9/25/2018		752 (D)		7220					31.3
9/26/2018	23.4		28.4					3965 (D)	
9/27/2018					1300	2510 (D)	5660 (D)		
11/6/2018				6020			6520	2230	9.8
11/7/2018	21.8	665	25.1		1180	8860			
3/6/2019						11700			
3/24/2019		744		7400	717	6470	8720	3960	
3/25/2019	19.4		21.8						12.9
10/15/2019		744		9050					
10/16/2019	21.4		20		941 (D)			2181.5 (D)	12.2
10/17/2019						9930	8210		
11/7/2019									
11/18/2019									
11/19/2019									
11/20/2019					1480		9810		
11/21/2019				8330				3890	
12/4/2019									
12/5/2019									
12/17/2019									
12/18/2019									
1/8/2020									
1/9/2020									
1/21/2020									
2/4/2020									
2/13/2020									
3/26/2020	23								
3/27/2020		675	23.6	7680				4770	14.5
3/28/2020					693	9190	9070		
10/12/2020		552							13.9
10/13/2020	13.5		23.3	6230				3980	
10/14/2020						6630	7910		
10/15/2020					1660				

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-16 (bg)	MCM-14	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
1/4/2021					2460				
3/2/2021		459		<1					
3/3/2021	13.6		27.6					<1	9.4
3/4/2021					652	6310	7540		
9/13/2021		433		5010					
9/14/2021	16.7		30		3940	5360	6300	4090	62.8
3/1/2022					1680	4150			
3/2/2022	13.4						5630		28.4
3/3/2022		394	26.5	5040				3540	
9/20/2022						2800			
9/21/2022	17	400	17	3300	1100		6400	3300	32

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-20 (bg)	MCM-19 (bg)	MCM-18 (bg)
8/30/2016						
8/31/2016						
10/25/2016						
11/30/2016						
2/15/2017						
2/16/2017						
5/31/2017	39					
6/1/2017		22				
6/2/2017			11			
8/2/2017	42	230	3.2			
8/15/2017						
8/16/2017	41					
8/17/2017		210	12			
4/4/2018		156	13.4			
4/5/2018	40.2					
5/8/2018		140	13.2			
5/9/2018	40.6					
6/19/2018	37.7		13.7			
6/20/2018		27.5				
6/21/2018						
9/25/2018						
9/26/2018	33.4		18.5			
9/27/2018		101				
11/6/2018		107				
11/7/2018	30.7		20.2			
3/6/2019						
3/24/2019						
3/25/2019	33.5	78.5	19.7			
10/15/2019		46	17.1			
10/16/2019	33.1					
10/17/2019						
11/7/2019				7880	6170	2360
11/18/2019						6970
11/19/2019				8130	5650	
11/20/2019						
11/21/2019						
12/4/2019				7410	6100	
12/5/2019						2130
12/17/2019					5660	
12/18/2019				7170		2090
1/8/2020				6480	5070	
1/9/2020						1750
1/21/2020				6000	5010	1630
2/4/2020				5700	5030	1760
2/13/2020				7060	6140	1850
3/26/2020						
3/27/2020	32.9		14.1	7110	6870	1450
3/28/2020		71.4				
10/12/2020						1340
10/13/2020	25.7	54.4	3.8	5980	5260	
10/14/2020						
10/15/2020						

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-20 (bg)	MCM-19 (bg)	MCM-18 (bg)
1/4/2021						
3/2/2021			4.2			
3/3/2021	20.5			<1	5170	1230
3/4/2021		69.6				
9/13/2021						
9/14/2021	21.8	28.5	13.6	5100	7250	1020
3/1/2022				4900	1870	
3/2/2022	20.6		14.3			1420
3/3/2022		12.2				
9/20/2022				5700	6200	1200
9/21/2022	23	47	3.3			

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-14	MCM-16 (bg)	MCM-06	MCM-07	MCM-05	MCM-17	MCM-11 (bg)
8/30/2016	0.03 (J)	1.5	0.5	0.04 (J)					
8/31/2016					0.41	0.92	0.93		
10/25/2016								1.1	
11/30/2016	0.04 (J)	1.4	0.49	0.18 (J)	0.61	0.99	0.93	1.3	
2/15/2017	0.007 (J)	1.3	0.58	0.02 (J)				1.3	
2/16/2017					0.3 (J)	0.54	0.6		
5/31/2017		1.2	0.56					1.3	0.85
6/1/2017	<0.1			0.005 (J)					
6/2/2017					0.19 (J)	0.42	0.34		
8/2/2017									0.69
8/15/2017		1.2						1.2	0.29 (J)
8/16/2017	0.03 (J)		0.45						
8/17/2017				0.04 (J)	0.26 (J)	0.27 (J)	0.52		
4/4/2018									0.32
4/5/2018									
5/8/2018									0.63
5/9/2018									
6/19/2018	<0.1	0.91	<0.1					0.6	0.17 (J)
6/20/2018				0.038 (J)	0.22 (J)		0.5		
6/21/2018						0.28 (J)			
9/25/2018		1.1	<0.1						0.15 (J)
9/26/2018	0.12 (J)			0.029				0.44 (D)	
9/27/2018					0.068 (J)	0.32 (D)	0.32		
11/6/2018			0.084 (J)			0.086 (J)		0.4	<0.1
11/7/2018	<0.1	<0.1		<0.1	10.3 (o)		0.35		
3/6/2019					<0.1				
3/24/2019		0.99	0.14 (J)		0.19 (J)	0.14 (J)	0.32	0.31	
3/25/2019	0.038 (J)			0.041 (J)					0.12 (J)
8/26/2019			<0.1						
8/27/2019	<0.1	1.1		<0.1				<0.1	
8/28/2019					<0.1	<0.1	0.36		0.068 (J)
10/15/2019		1	<0.1						
10/16/2019	0.046 (JD)			0.044 (J)			0.41	0.083 (J)	0.1 (J)
10/17/2019					<0.1	<0.1			
11/7/2019									
11/18/2019									
11/19/2019									
11/20/2019						<0.1	0.34		
11/21/2019			<0.1					<0.1	
12/4/2019									
12/5/2019									
12/17/2019									
12/18/2019									
1/8/2020									
1/9/2020									
1/21/2020									
2/4/2020									
2/13/2020									
3/26/2020	<0.1								
3/27/2020		1.1	<0.1	<0.1				<0.1	0.066 (J)
3/28/2020					<0.1	<0.1	0.34		
10/12/2020		1.2							<0.1

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-14	MCM-16 (bg)	MCM-06	MCM-07	MCM-05	MCM-17	MCM-11 (bg)
10/13/2020	<0.1		<0.1	<0.1				<0.1	
10/14/2020					<0.1	<0.1			
10/15/2020							0.22		
1/4/2021							<0.1		
3/2/2021		1	<0.1						
3/3/2021	<0.1			<0.1				<0.1	0.082 (J)
3/4/2021					<0.1	<0.1	0.45		
9/13/2021		1.4	<0.1						
9/14/2021	<0.1			<0.1	<0.1	<0.1	<0.1	<0.1	0.18
3/1/2022					<0.1		<0.1		
3/2/2022	<0.1					<0.1			0.097 (J)
3/3/2022		0.95	<0.1	<0.1				<0.1	
9/20/2022					1.1 (J)				
9/21/2022	<0.1	1.3	0.12	<0.1		0.18	0.48	0.78	0.11

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-19 (bg)	MCM-20 (bg)	MCM-18 (bg)
8/30/2016						
8/31/2016						
10/25/2016						
11/30/2016						
2/15/2017						
2/16/2017						
5/31/2017	0.01 (J)					
6/1/2017		<0.1				
6/2/2017			<0.1			
8/2/2017	0.14 (J)	0.27 (J)	0.05 (J)			
8/15/2017						
8/16/2017	0.13 (J)					
8/17/2017		0.18 (J)	<0.1			
4/4/2018		<0.1	<0.1			
4/5/2018	<0.1					
5/8/2018		0.56	<0.1			
5/9/2018	<0.1					
6/19/2018	0.065 (J)		0.057 (J)			
6/20/2018		0.033 (J)				
6/21/2018						
9/25/2018						
9/26/2018	0.029		0.029			
9/27/2018		0.12 (J)				
11/6/2018		<0.1				
11/7/2018	<0.1		<0.1			
3/6/2019						
3/24/2019						
3/25/2019	0.039 (J)	0.055 (J)	0.036 (J)			
8/26/2019						
8/27/2019		<0.1	<0.1			
8/28/2019	<0.1					
10/15/2019		0.095 (J)	0.14 (J)			
10/16/2019	0.044 (JD)					
10/17/2019						
11/7/2019				<0.1	1.4	0.49
11/18/2019						0.52
11/19/2019				0.033 (J)	1.2	
11/20/2019						
11/21/2019						
12/4/2019				0.22 (J)	1.4	
12/5/2019						0.5
12/17/2019				<0.1		
12/18/2019					1.5	0.33
1/8/2020				<0.1	<0.1	
1/9/2020						0.12 (J)
1/21/2020				0.11 (J)	0.53	0.13 (J)
2/4/2020				<0.1	<0.1	0.18 (J)
2/13/2020				<0.1	<0.1	0.077 (J)
3/26/2020						
3/27/2020	<0.1		<0.1	<0.1	<0.1	0.06 (J)
3/28/2020		<0.1				
10/12/2020						0.34

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-19 (bg)	MCM-20 (bg)	MCM-18 (bg)
10/13/2020	<0.1	<0.1	<0.1	<0.1	<0.1	
10/14/2020						
10/15/2020						
1/4/2021						
3/2/2021			<0.1			
3/3/2021	<0.1			<0.1	<0.1	0.32
3/4/2021		<0.1				
9/13/2021						
9/14/2021	<0.1	0.05	<0.1	<0.1	<0.1	<0.1
3/1/2022				<0.1	<0.1	
3/2/2022	<0.1		<0.1			<0.1
3/3/2022		<0.1				
9/20/2022				<0.1	4.3 (Jo)	0.61 (J)
9/21/2022	<0.1	<0.1	<0.1			

Prediction Limit

Constituent: pH, field (Std. Units) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-16 (bg)	MCM-14	MCM-12	MCM-05	MCM-06	MCM-07	MCM-17	MCM-02 (bg)
8/30/2016	5.66	5.18	7.04	6.49					
8/31/2016					6.93	7.21	6.66		
10/25/2016								6.95	
11/30/2016	5.36	4.96	7.13	6.5	6.77	7.23	6.69	6.95	
2/15/2017	5.25	5.13	7.02	6.51				6.85	
2/16/2017					6.89	7.27	6.72		
5/31/2017			7	6.45				6.96	5.06
6/1/2017	5.59	4.99							
6/2/2017					6.83	7.18	6.53		
8/2/2017									5
8/15/2017				6.41				6.99	
8/16/2017	5.58		6.88						4.98
8/17/2017		4.68			6.76	7.15	6.28		
4/4/2018									
4/5/2018									5.02
5/8/2018									
5/9/2018									4.96
6/19/2018	5.51		6.78	6.32				6.91	5.02
6/20/2018		4.77			6.83	7.19			
6/21/2018							6.45		
9/25/2018			6.75	6.31					
9/26/2018	5.32	4.65						6.81	5.06
9/27/2018					6.64	7.21	6.48		
11/6/2018			6.92				6.18	5.99	
11/7/2018	5.72	4.99		6.3	6.6	6.91			5.03
3/24/2019			6.59	6.4	6.1	6.98	6.38	6.62	
3/25/2019	5.75	5.13							5.08
8/26/2019			6.62						
8/27/2019	5.58	4.88		6.24				6.23	
8/28/2019					6.69	6.87	6.35		4.99
10/15/2019			6.58	6.19					
10/16/2019	5.72	4.89			6.64			6.54	4.98
10/17/2019						6.86	6.4		
11/7/2019									
11/18/2019									
11/19/2019									5.11
11/20/2019	5.77				6.58		6.27		
11/21/2019			6.67					6.44	
12/4/2019									
12/5/2019									
1/8/2020									
1/9/2020									
1/21/2020									
2/4/2020									
2/13/2020									
3/26/2020	5.45								
3/27/2020		5.12	6.59	6.33				6.93	5.12
3/28/2020					6.6	6.8	6.35		
10/12/2020				6.35					
10/13/2020	5.69	5.17	6.56					6.34	5.03
10/14/2020						6.93	6.32		
10/15/2020					6.53				

Prediction Limit

Constituent: pH, field (Std. Units) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-16 (bg)	MCM-14	MCM-12	MCM-05	MCM-06	MCM-07	MCM-17	MCM-02 (bg)
1/4/2021					6.66				
3/2/2021			6.55	6.34					
3/3/2021	5.81	5.71						6.58	5.06
3/4/2021					6.52	6.94	6.33		
9/13/2021			6.3	6.24					
9/14/2021	5.13	4.69			6.67	6.94	6.28	6.77	5.04
3/1/2022					6.87	7.24			
3/2/2022	5.32						6.41		5.16
3/3/2022		4.88	6.49	6.51				4.27	
9/20/2022						7.29			
9/21/2022	4.95	4.91	6.61	6.3	6.93		6.27	6.72	5.14

Prediction Limit

Constituent: pH, field (Std. Units) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-11 (bg)	MCM-04	MCM-15 (bg)	MCM-20 (bg)	MCM-18 (bg)	MCM-19 (bg)
8/30/2016						
8/31/2016						
10/25/2016						
11/30/2016						
2/15/2017						
2/16/2017						
5/31/2017	5.29					
6/1/2017		5.68				
6/2/2017			5.31			
8/2/2017	5.19	5.2	5.05			
8/15/2017	5.19					
8/16/2017						
8/17/2017		5.31	5.52			
4/4/2018	5.19	4.74	5.45			
4/5/2018						
5/8/2018	5.3	4.78	5.54			
5/9/2018						
6/19/2018	5.15		5.6			
6/20/2018		4.79				
6/21/2018						
9/25/2018	5.13					
9/26/2018			5.17			
9/27/2018		5.14				
11/6/2018	5.08	4.9				
11/7/2018			5.47			
3/24/2019			5.4			
3/25/2019	5.05	4.93				
8/26/2019						
8/27/2019		5.05	5.35			
8/28/2019	4.87					
10/15/2019		4.89	5.32			
10/16/2019	5.05					
10/17/2019						
11/7/2019				3.79	4.25	5.21
11/18/2019					4.12	
11/19/2019				3.78		5.15
11/20/2019		5.03				
11/21/2019						
12/4/2019				3.87 (D)		5.28 (D)
12/5/2019					4.17 (D)	
1/8/2020				3.77		5.04
1/9/2020					4.19	
1/21/2020				3.73	4.28	5.1
2/4/2020				3.72	4.26	5.15
2/13/2020				3.75	4.2	5.07
3/26/2020						
3/27/2020	5.09		5.3	3.81	4.34	5.14
3/28/2020		5.27				
10/12/2020	5				4.29	
10/13/2020		5.25	5.02	3.72		5.04
10/14/2020						
10/15/2020						

Prediction Limit

Constituent: pH, field (Std. Units) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-11 (bg)	MCM-04	MCM-15 (bg)	MCM-20 (bg)	MCM-18 (bg)	MCM-19 (bg)
1/4/2021						
3/2/2021			5.16			
3/3/2021	5.07			3.36	4.37	5.1
3/4/2021		5.31				
9/13/2021						
9/14/2021	5.5	5.09	5.39	3.72	4.28	5.31
3/1/2022				3.69		5.38
3/2/2022	5.11		5.37		4.33	
3/3/2022		4.98				
9/20/2022				3.63	4.47	5.14
9/21/2022	4.97	5.34	5.23			

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-16 (bg)	MCM-14	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
8/30/2016	17	4.3	24	6.4					
8/31/2016					37	21	290		
10/25/2016								84	
11/30/2016	33	7.6	26	4.5	63	19	240	52	
2/15/2017	83	3	30	37				190	
2/16/2017					90	22	220		
5/31/2017		2.5		61				260	40
6/1/2017	51		24						
6/2/2017					210	28	500		
8/2/2017									34
8/15/2017		3.2						210	24
8/16/2017	36			130					
8/17/2017			26		80	69	510		
4/4/2018									33.9
4/5/2018									
5/8/2018									35.7
5/9/2018									
6/19/2018	50.3	1.6		498				218	23.7
6/20/2018			31.2		46 (J)	33			
6/21/2018							481		
9/25/2018		1		790					25.6
9/26/2018	54.1		36.8					333 (D)	
9/27/2018					58.5 (J)	29.4 (D)	777 (D)		
11/6/2018				875			926	182	25.2
11/7/2018	45.6	0.41 (J)	35		41.3 (J)	734			
3/6/2019						1220 (J)			
3/24/2019		1.5		1170	131	413	1070	413	
3/25/2019	43		40.1						24.9
10/15/2019		0.54 (J)		<1					
10/16/2019	31.9		28.5		122.5 (D)			312.5 (D)	17.4
10/17/2019						507	1230		
11/7/2019									
11/18/2019									
11/19/2019									
11/20/2019					132		1550		
11/21/2019				1070				428	
12/4/2019									
12/5/2019									
12/17/2019									
12/18/2019									
1/8/2020									
1/9/2020									
1/21/2020									
2/4/2020									
2/13/2020									
3/26/2020	36.2								
3/27/2020		<1	31.2	899				504	23.4
3/28/2020					63.8	701	1090		
10/12/2020		<1							19.3
10/13/2020	32.3		26.8	695				378	
10/14/2020						510	904		
10/15/2020					147				

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-16 (bg)	MCM-14	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
1/4/2021					262				
3/2/2021		1.2		97.5					
3/3/2021	33.8		30.5					420	19.9
3/4/2021					82.2	596	982		
9/13/2021		<1		680					
9/14/2021	34.2		24.4		459	490	819	460	33.1
3/1/2022					143	440			
3/2/2022	30.8						702		19.5
3/3/2022		<1	20.4	754				324	
9/20/2022						320			
9/21/2022	39	<1	24	270	100		660	330	23

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-20 (bg)	MCM-18 (bg)	MCM-19 (bg)
8/30/2016						
8/31/2016						
10/25/2016						
11/30/2016						
2/15/2017						
2/16/2017						
5/31/2017	46					
6/1/2017		42				
6/2/2017			13			
8/2/2017	43	120	14			
8/15/2017						
8/16/2017	41					
8/17/2017		110	14			
4/4/2018		70.6	13.4			
4/5/2018	33.4					
5/8/2018		61.4	14.8			
5/9/2018	36					
6/19/2018	35.5		15.5			
6/20/2018		25.3				
6/21/2018						
9/25/2018						
9/26/2018	39.6		23			
9/27/2018		63.4				
11/6/2018		136				
11/7/2018	35.8		22.2			
3/6/2019						
3/24/2019						
3/25/2019	34.2	137	22.4			
10/15/2019		105	17.9			
10/16/2019	24.4					
10/17/2019						
11/7/2019				1010	379	832
11/18/2019					737	
11/19/2019				1140		795
11/20/2019						
11/21/2019						
12/4/2019				1020		810
12/5/2019					351	
12/17/2019						535
12/18/2019				8.1		
1/8/2020				747		603
1/9/2020					254	
1/21/2020				798	254	611
2/4/2020				1120	432	599
2/13/2020				833	300	761
3/26/2020						
3/27/2020	28.6		14.6	700	219	836
3/28/2020		86.6				
10/12/2020					191	
10/13/2020	27.6	92.3	7.6	638		609
10/14/2020						
10/15/2020						

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-20 (bg)	MCM-18 (bg)	MCM-19 (bg)
1/4/2021						
3/2/2021			8			
3/3/2021	27.6			743	171	<1
3/4/2021		99.1				
9/13/2021						
9/14/2021	30.4	96.2 (M1)	16.7	659	134	995
3/1/2022				543		158
3/2/2022	25.7		16		186	
3/3/2022		50.6				
9/20/2022				750	160	740
9/21/2022	29	52	6.3			

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-16 (bg)	MCM-14	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
8/30/2016	86	1910	99	1310					
8/31/2016					3620	4160	5100		
10/25/2016								2900	
11/30/2016	131	1910	111	1050	4030	3950	4680	3970	
2/15/2017	212	1870	170	1440				3820	
2/16/2017					4080	4600	5080		
5/31/2017		1920		1740				5050	257
6/1/2017	103		98						
6/2/2017					5560	4470	8000		
8/2/2017									183
8/15/2017		1840						4820	90
8/16/2017	65			3010					
8/17/2017			84		4620	5450	8320		
4/4/2018									197
4/5/2018									
5/8/2018									225
5/9/2018									
6/19/2018	142	1820		8630				5640	112
6/20/2018			123		3370	4940			
6/21/2018							7500		
9/25/2018		1760		10700					137
9/26/2018	133		117					6920	
9/27/2018					2360	4480	10200		
11/6/2018				11100			11000	4160	89
11/7/2018	121	1800	120		2230	15100			
3/6/2019						19000			
3/24/2019		1770		14200	1450	13700	13700	6840	
3/25/2019	116		101						74
10/15/2019		1730		15400					
10/16/2019	104		95		2860			7740	82
10/17/2019						16100	13200		
11/7/2019									
11/18/2019									
11/19/2019									
11/20/2019					2640		16700		
11/21/2019				15800				7720	
12/4/2019									
12/5/2019									
12/17/2019									
12/18/2019									
1/8/2020									
1/9/2020									
1/21/2020									
2/4/2020									
2/13/2020									
3/26/2020	114								
3/27/2020		1970	110	16400				10200	87
3/28/2020					1470	18800	18300		
10/12/2020		1560							94
10/13/2020	113		115	15600				8750	
10/14/2020						15200	18400		
10/15/2020					5100				

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-16 (bg)	MCM-14	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
1/4/2021					7750				
3/2/2021		1430		12000					
3/3/2021	99		122					8830	66
3/4/2021					1700	14200	17100		
9/13/2021		1450		11400					
9/14/2021	66		<25		8020	11800	13400	8820	191
3/1/2022					3780	9040			
3/2/2022	97						12600		124
3/3/2022		1400	104	11500				8120	
9/20/2022						3900			
9/21/2022	100	1300	78	7400	2100		9400	6200	110

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-20 (bg)	MCM-19 (bg)	MCM-18 (bg)
8/30/2016						
8/31/2016						
10/25/2016						
11/30/2016						
2/15/2017						
2/16/2017						
5/31/2017	123					
6/1/2017		97				
6/2/2017			69			
8/2/2017	136	538	35			
8/15/2017						
8/16/2017	124					
8/17/2017		445	51			
4/4/2018		365	90			
4/5/2018	128					
5/8/2018		304	89			
5/9/2018	127					
6/19/2018	143		110			
6/20/2018		114				
6/21/2018						
9/25/2018						
9/26/2018	132		124			
9/27/2018		255				
11/6/2018		388				
11/7/2018	134		125			
3/6/2019						
3/24/2019						
3/25/2019	111	327	98			
10/15/2019		237	107			
10/16/2019	96					
10/17/2019						
11/7/2019				13500	10900	4140
11/18/2019						4030
11/19/2019				13300	10000	
11/20/2019						
11/21/2019						
12/4/2019				13200	11000	
12/5/2019						3840
12/17/2019					9860	
12/18/2019				12500		3880
1/8/2020				12300	9760	
1/9/2020						3520
1/21/2020				12000	10100	3280
2/4/2020				12300	10600	3220
2/13/2020				12400	10900	3580
3/26/2020						
3/27/2020	119		110	14600	14300	3090
3/28/2020		284				
10/12/2020						2920
10/13/2020	118	<25	63	13900	6600	
10/14/2020						
10/15/2020						

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-20 (bg)	MCM-19 (bg)	MCM-18 (bg)
1/4/2021						
3/2/2021			40			
3/3/2021	84			11400	11000	2620
3/4/2021		285				
9/13/2021						
9/14/2021	76	193	96	10300	14600	2190
3/1/2022				10500	4050	
3/2/2022	94		103			3100
3/3/2022		146				
9/20/2022				8600	10000	2000
9/21/2022	90	180	38			

FIGURE E.

Trend Tests - Prediction Limit Exceedances - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/8/2022, 4:17 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	**MCM-02 (bg)**	**-0.203**	**-59**	**-58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MCM-07**	**22.69**	**65**	**63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MCM-18 (bg)**	**-12.22**	**-69**	**-48**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MCM-20 (bg)**	**-34.13**	**-65**	**-48**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH, field (Std. Units)	**MCM-07**	**-0.05609**	**-74**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH, field (Std. Units)	**MCM-14**	**-0.1164**	**-118**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH, field (Std. Units)	**MCM-18 (bg)**	**0.09133**	**51**	**43**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH, field (Std. Units)	**MCM-20 (bg)**	**-0.0637**	**-49**	**-43**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Trend Tests - Prediction Limit Exceedances - All Results

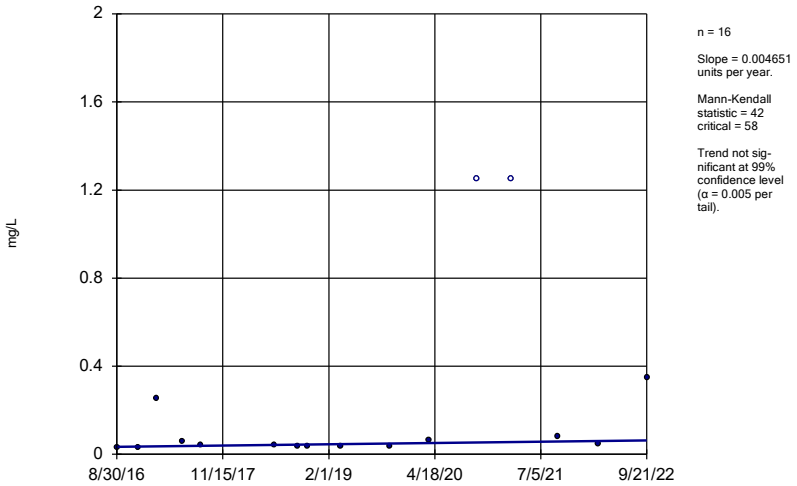
Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/8/2022, 4:17 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MCM-01 (bg)	0.004651	42	58	No	16	12.5	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-02 (bg)	-0.01071	-19	-58	No	16	12.5	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-11 (bg)	0.00389	26	58	No	16	12.5	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-15 (bg)	0.007093	42	58	No	16	12.5	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-16 (bg)	-0.004349	-25	-58	No	16	12.5	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-17	-0.04944	-27	-63	No	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-18 (bg)	-0.01812	-39	-48	No	14	0	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-19 (bg)	0.007503	3	48	No	14	0	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-20 (bg)	-0.01501	-13	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-01 (bg)	-0.2923	-18	-63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**MCM-02 (bg)**	**-0.203**	**-59**	**-58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MCM-07**	**22.69**	**65**	**63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	MCM-11 (bg)	-1.082	-32	-58	No	16	6.25	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-15 (bg)	0	2	58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-16 (bg)	0.02199	7	58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**MCM-18 (bg)**	**-12.22**	**-69**	**-48**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	MCM-19 (bg)	-30.04	-42	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**MCM-20 (bg)**	**-34.13**	**-65**	**-48**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH, field (Std. Units)	MCM-01 (bg)	-0.004468	-4	-68	No	18	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-02 (bg)	0.02274	65	68	No	18	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-05	-0.0466	-43	-74	No	19	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-06	-0.05477	-28	-63	No	17	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	**MCM-07**	**-0.05609**	**-74**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH, field (Std. Units)	MCM-11 (bg)	-0.04429	-60	-63	No	17	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-12	-0.0342	-51	-63	No	17	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	**MCM-14**	**-0.1164**	**-118**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH, field (Std. Units)	MCM-15 (bg)	-0.04201	-34	-63	No	17	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-16 (bg)	-0.001213	-3	-63	No	17	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-17	-0.09481	-64	-68	No	18	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	**MCM-18 (bg)**	**0.09133**	**51**	**43**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH, field (Std. Units)	MCM-19 (bg)	0	2	43	No	13	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	**MCM-20 (bg)**	**-0.0637**	**-49**	**-43**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MCM-01 (bg)



n = 16

Slope = 0.004651 units per year.

Mann-Kendall statistic = 42
critical = 58

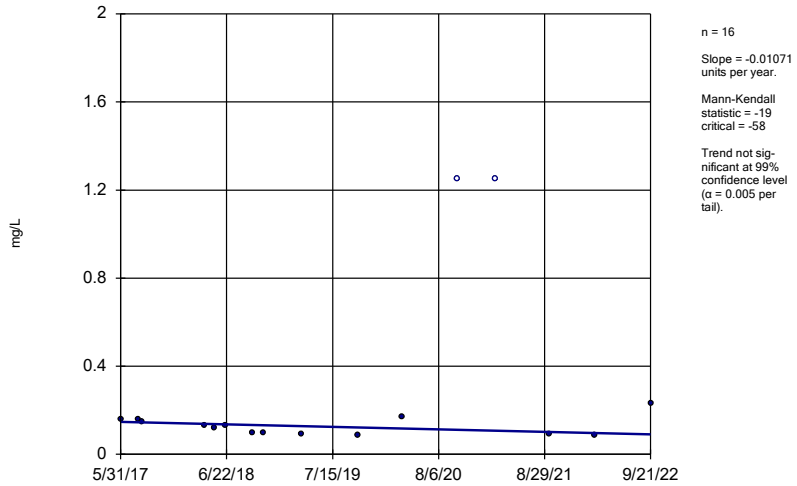
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MCM-02 (bg)



n = 16

Slope = -0.01071 units per year.

Mann-Kendall statistic = -19
critical = -58

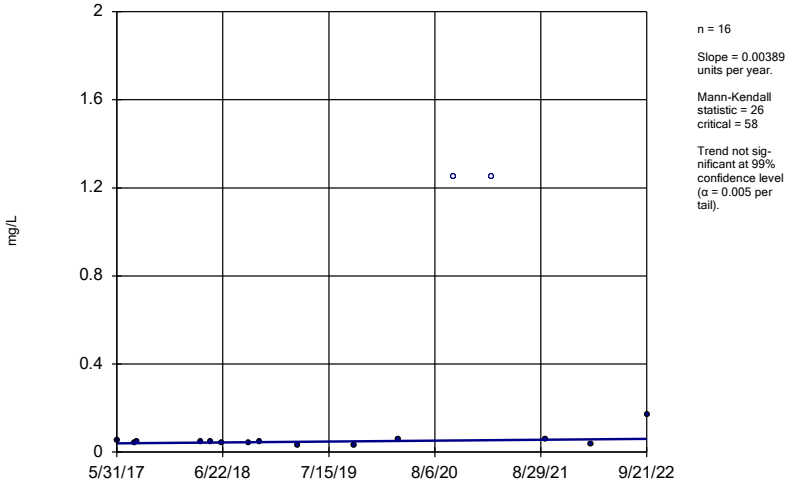
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MCM-11 (bg)



n = 16

Slope = 0.00389 units per year.

Mann-Kendall statistic = 26
critical = 58

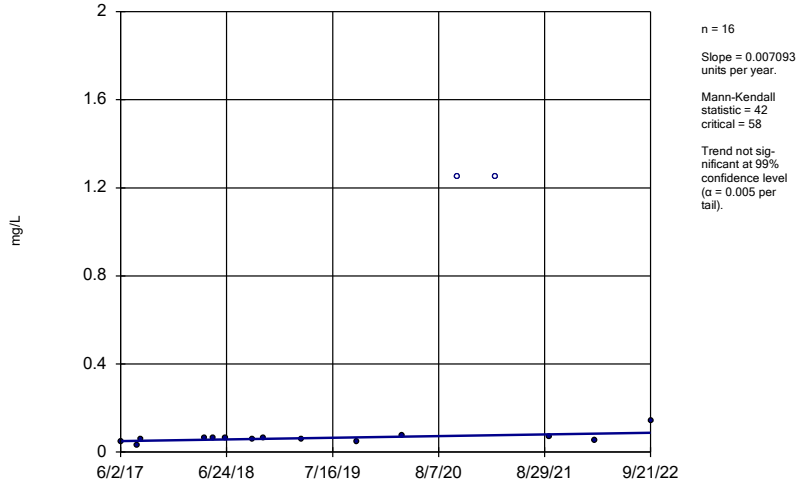
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MCM-15 (bg)



n = 16

Slope = 0.007093 units per year.

Mann-Kendall statistic = 42
critical = 58

Trend not significant at 99% confidence level (α = 0.005 per tail).

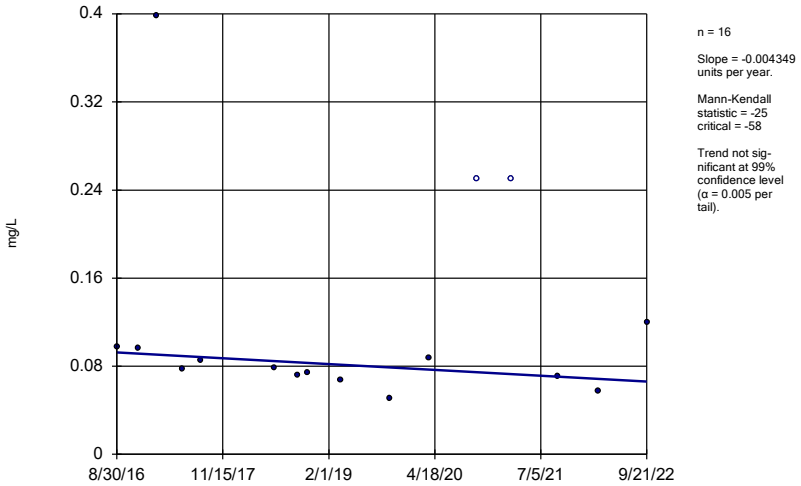
Constituent: Boron Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

MCM-16 (bg)



n = 16

Slope = -0.004349 units per year.

Mann-Kendall statistic = -25
critical = -58

Trend not significant at 99% confidence level (α = 0.005 per tail).

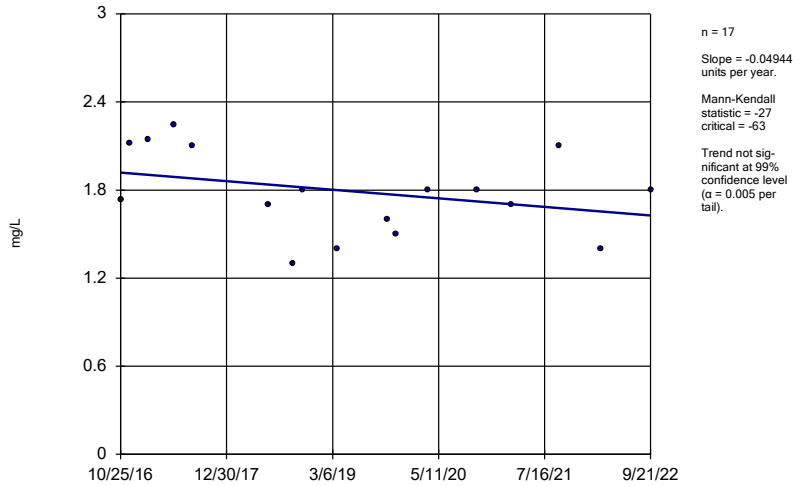
Constituent: Boron Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MCM-17



n = 17

Slope = -0.04944 units per year.

Mann-Kendall statistic = -27
critical = -63

Trend not significant at 99% confidence level (α = 0.005 per tail).

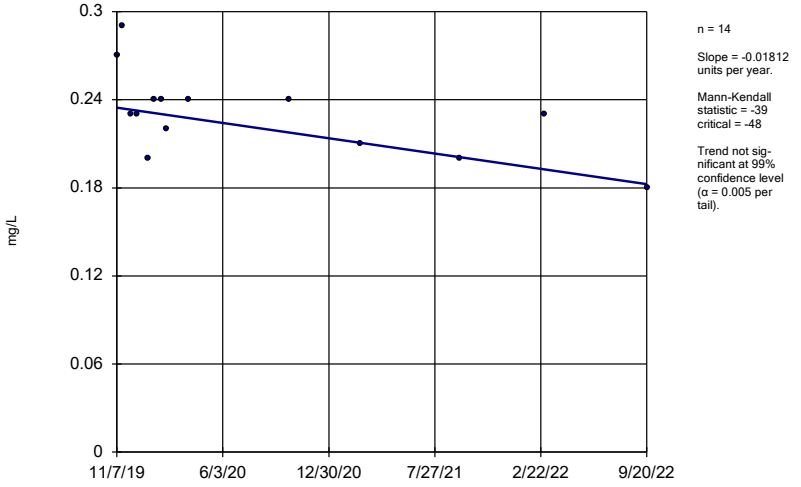
Constituent: Boron Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MCM-18 (bg)



n = 14

Slope = -0.01812 units per year.

Mann-Kendall statistic = -39
critical = -48

Trend not significant at 99% confidence level (α = 0.005 per tail).

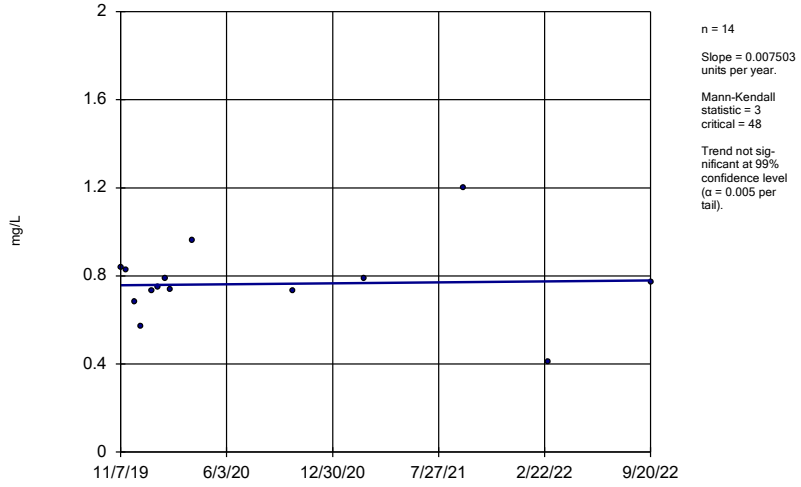
Constituent: Boron Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MCM-19 (bg)



n = 14

Slope = 0.007503 units per year.

Mann-Kendall statistic = 3
critical = 48

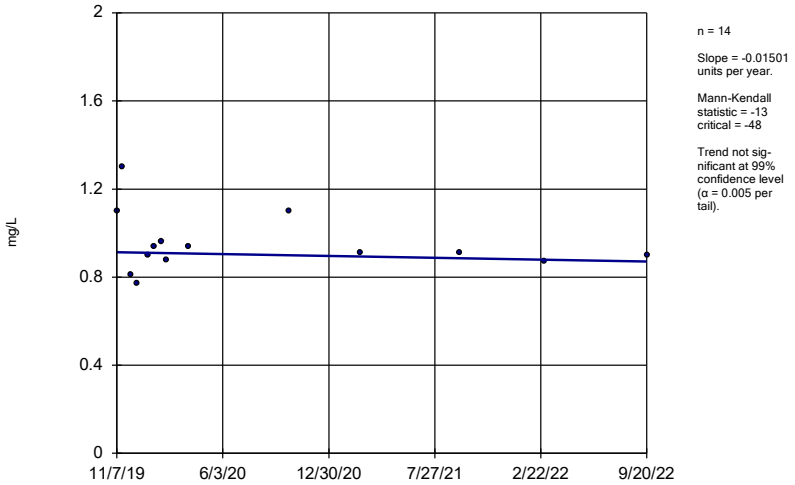
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-20 (bg)



n = 14

Slope = -0.01501 units per year.

Mann-Kendall statistic = -13
critical = -48

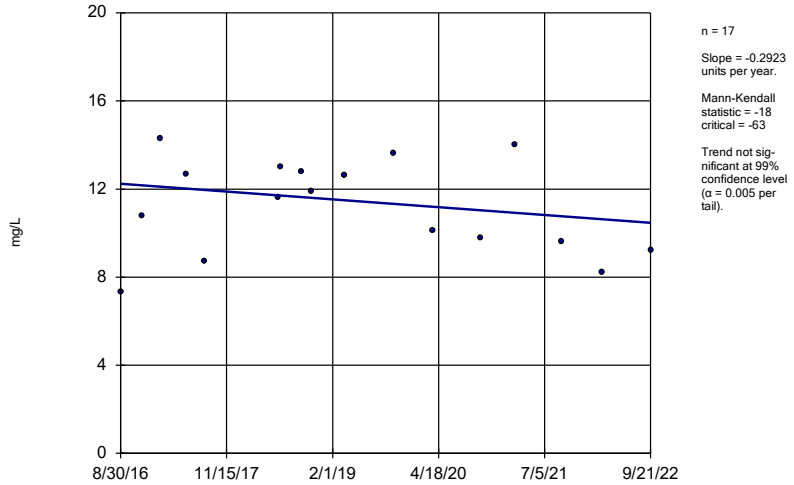
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MCM-01 (bg)



n = 17

Slope = -0.2923 units per year.

Mann-Kendall statistic = -18
critical = -63

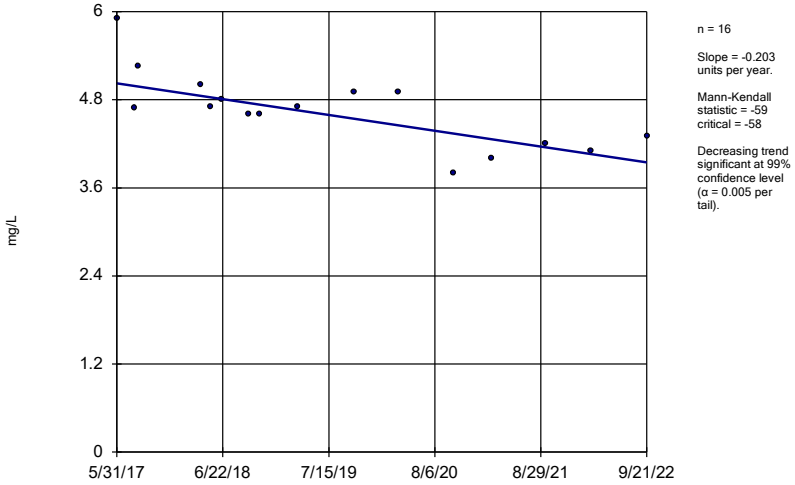
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MCM-02 (bg)



n = 16

Slope = -0.203 units per year.

Mann-Kendall statistic = -59
critical = -58

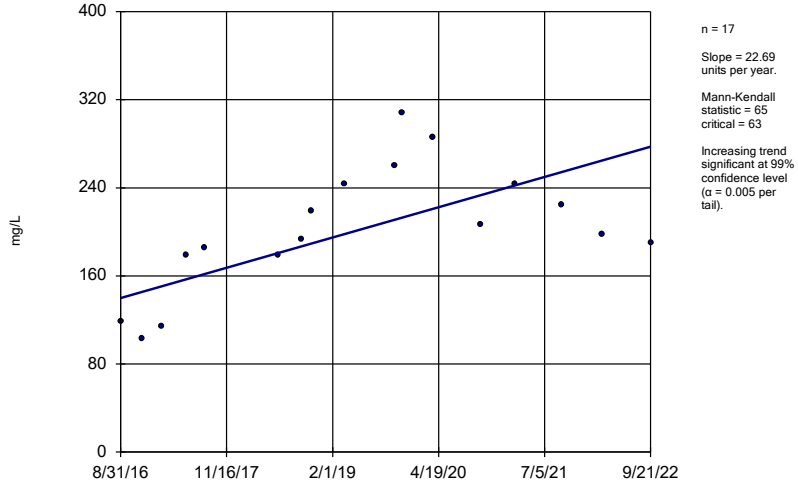
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MCM-07



n = 17

Slope = 22.69 units per year.

Mann-Kendall statistic = 65
critical = 63

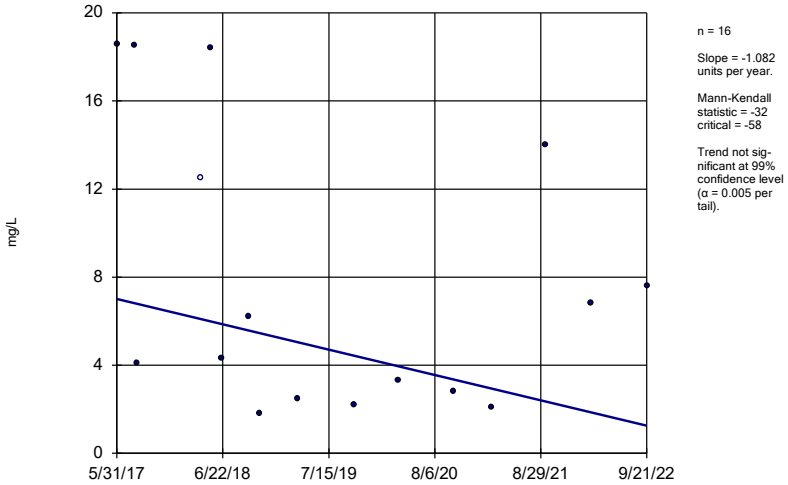
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MCM-11 (bg)



n = 16

Slope = -1.082 units per year.

Mann-Kendall statistic = -32
critical = -58

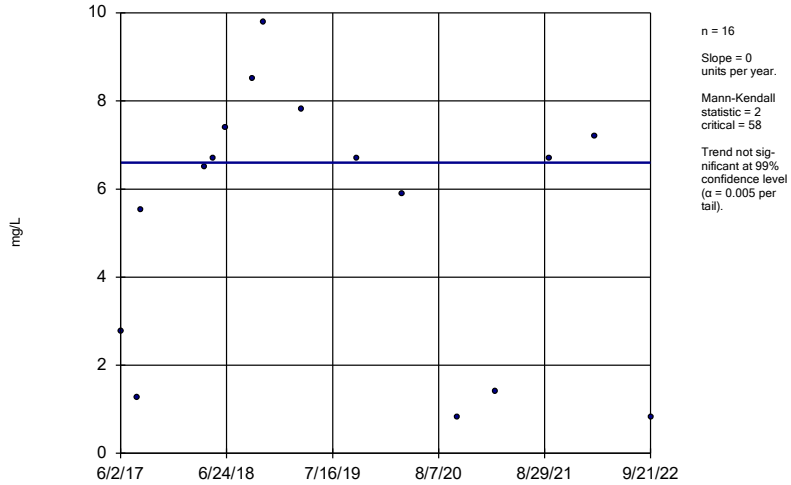
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MCM-15 (bg)



n = 16

Slope = 0 units per year.

Mann-Kendall statistic = 2
critical = 58

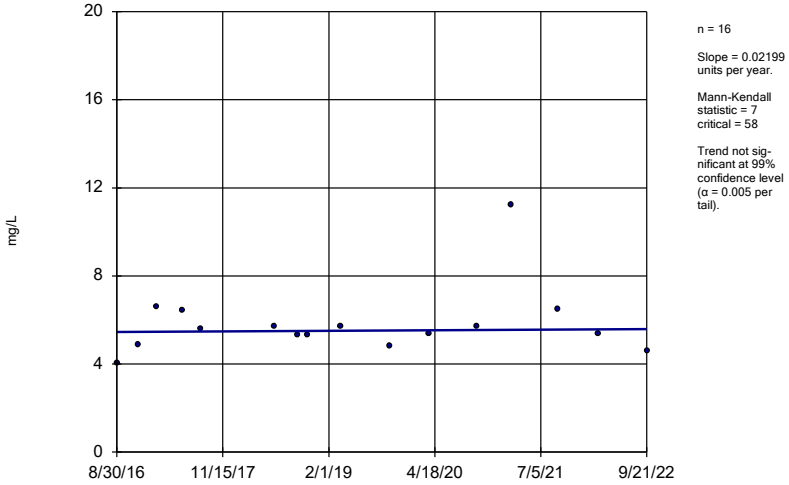
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MCM-16 (bg)



n = 16

Slope = 0.02199 units per year.

Mann-Kendall statistic = 7
critical = 58

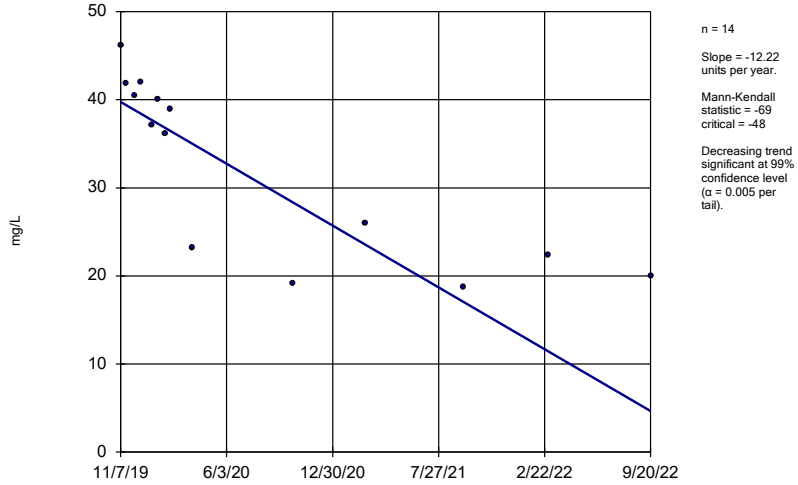
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MCM-18 (bg)



n = 14

Slope = -12.22 units per year.

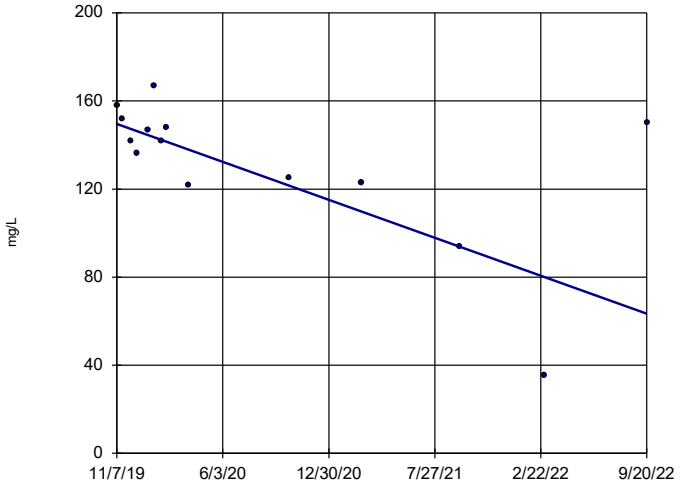
Mann-Kendall statistic = -69
critical = -48

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-19 (bg)



n = 14

Slope = -30.04 units per year.

Mann-Kendall statistic = -42
critical = -48

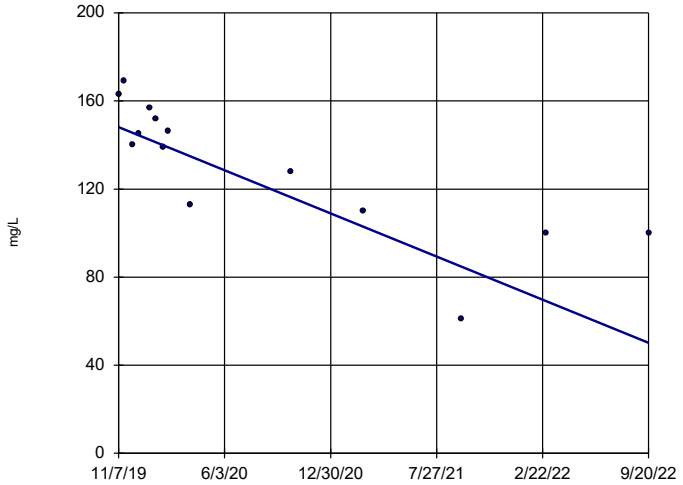
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MCM-20 (bg)



n = 14

Slope = -34.13 units per year.

Mann-Kendall statistic = -65
critical = -48

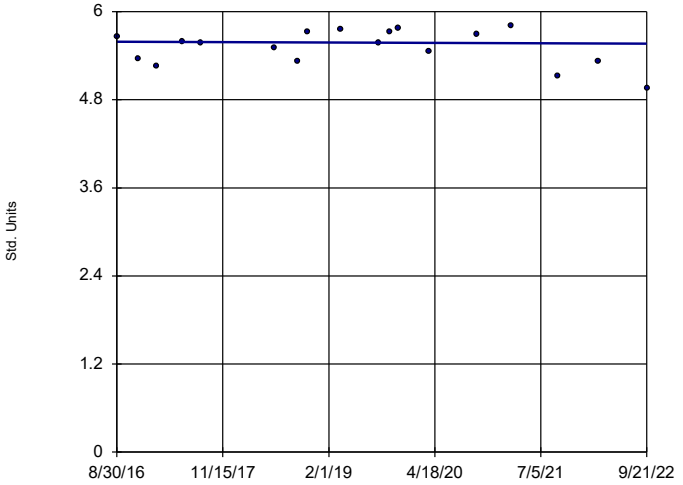
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MCM-01 (bg)



n = 18

Slope = -0.004468 units per year.

Mann-Kendall statistic = -4
critical = -68

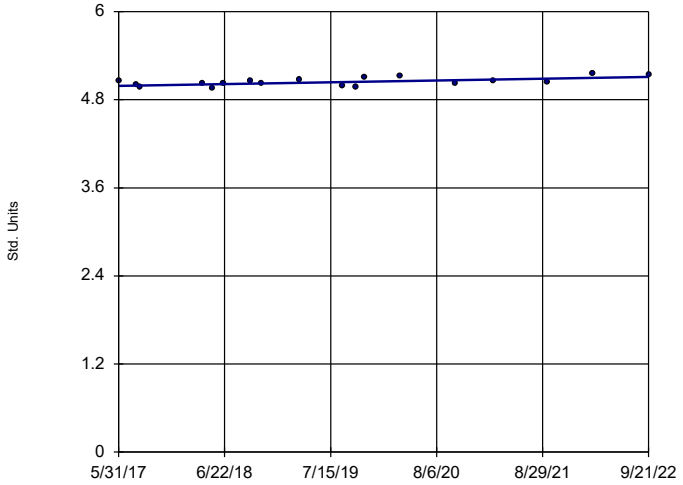
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, field Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MCM-02 (bg)



n = 18

Slope = 0.02274 units per year.

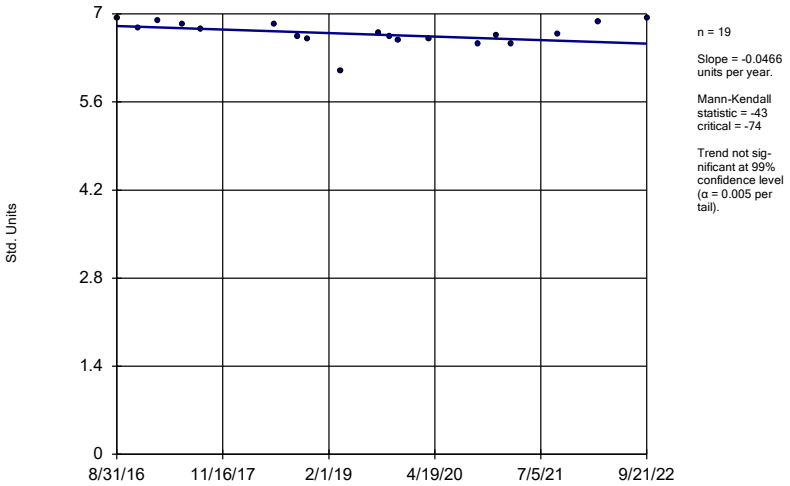
Mann-Kendall statistic = 65
critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, field Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-05



n = 19

Slope = -0.0466 units per year.

Mann-Kendall statistic = -43
critical = -74

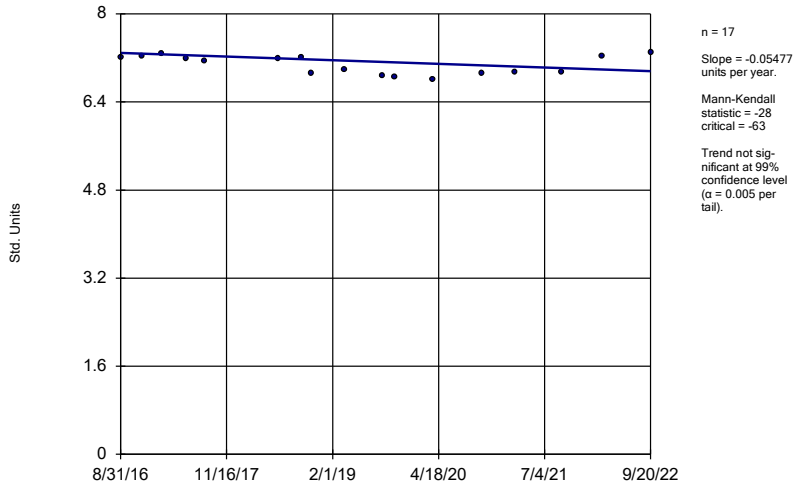
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, field Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MCM-06



n = 17

Slope = -0.05477 units per year.

Mann-Kendall statistic = -28
critical = -63

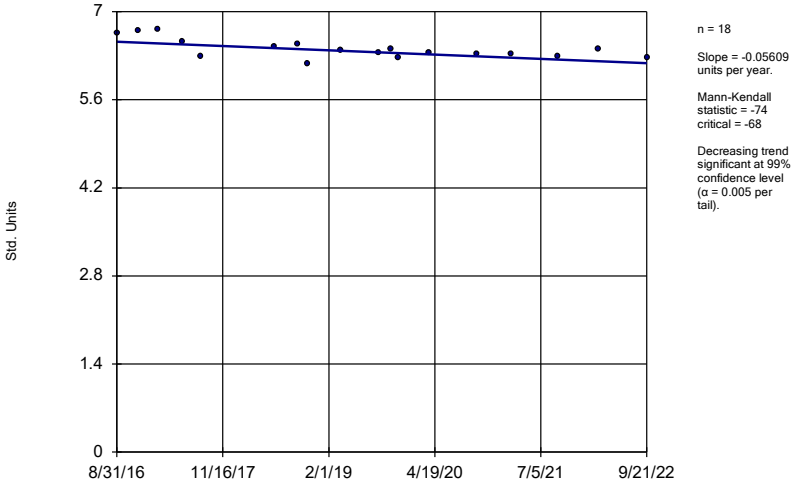
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, field Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MCM-07



n = 18

Slope = -0.05609 units per year.

Mann-Kendall statistic = -74
critical = -68

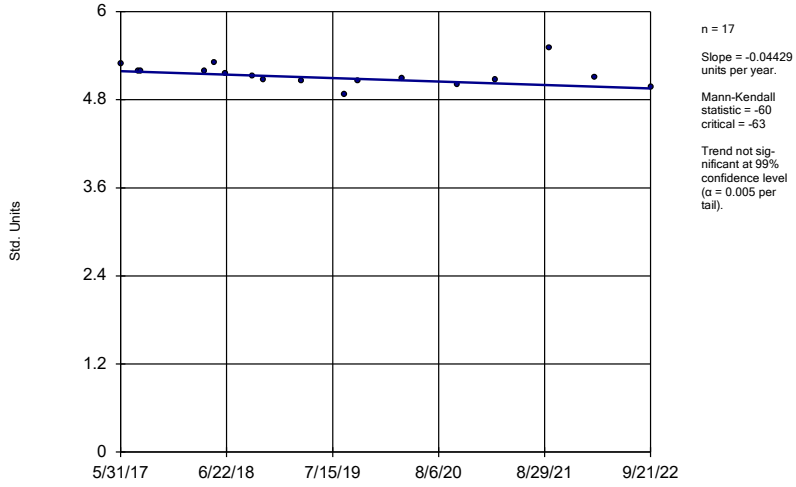
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, field Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MCM-11 (bg)



n = 17

Slope = -0.04429 units per year.

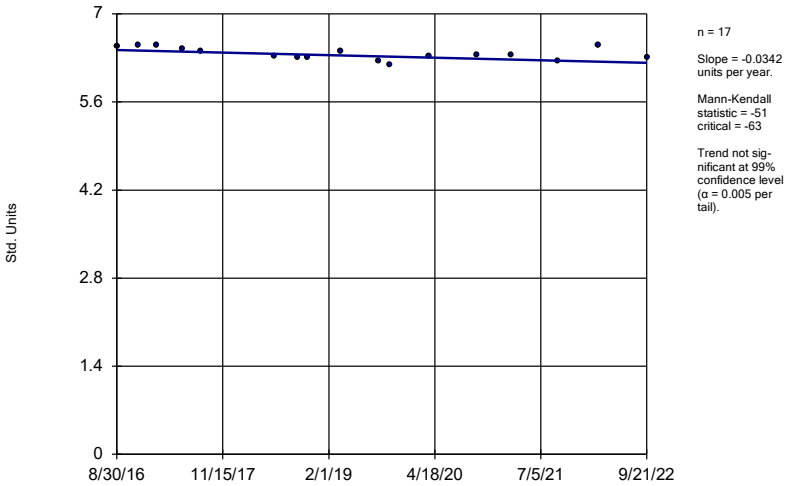
Mann-Kendall statistic = -60
critical = -63

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, field Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-12

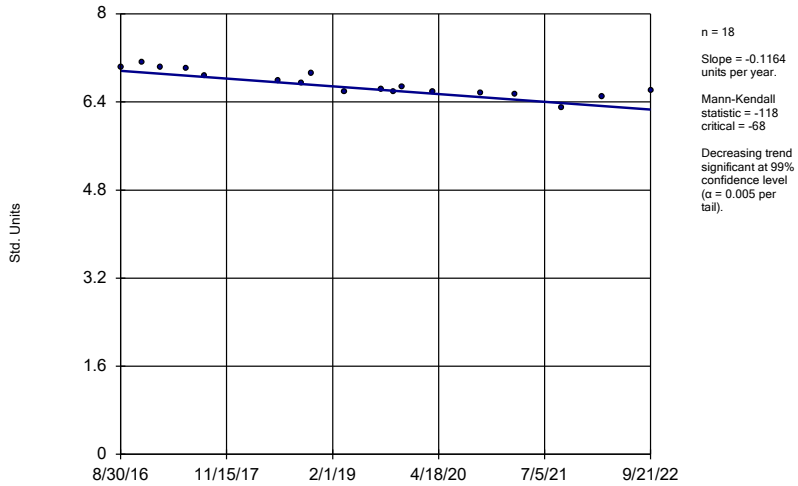


Constituent: pH, field Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MCM-14

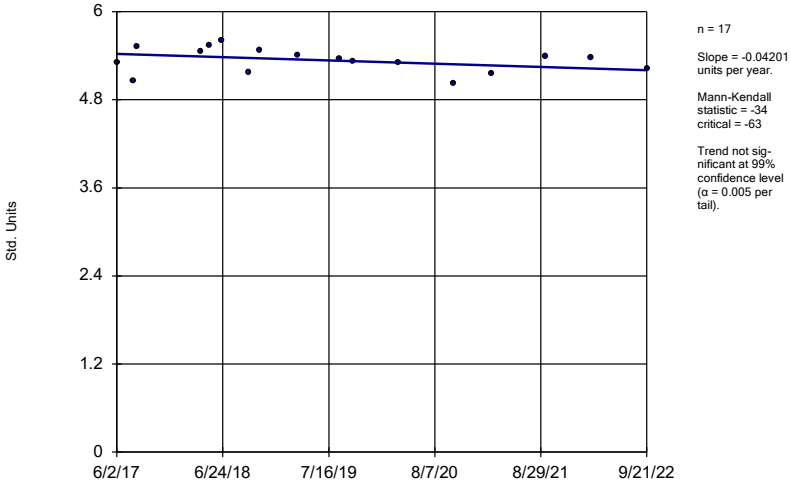


Constituent: pH, field Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MCM-15 (bg)

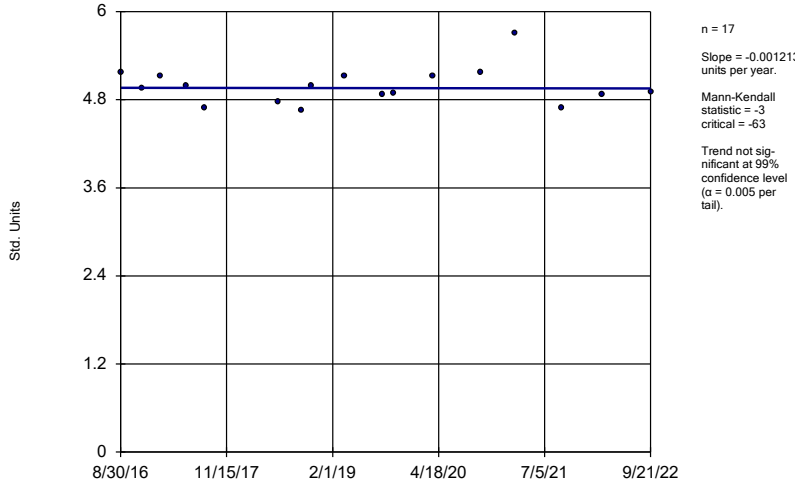


Constituent: pH, field Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Sen's Slope Estimator

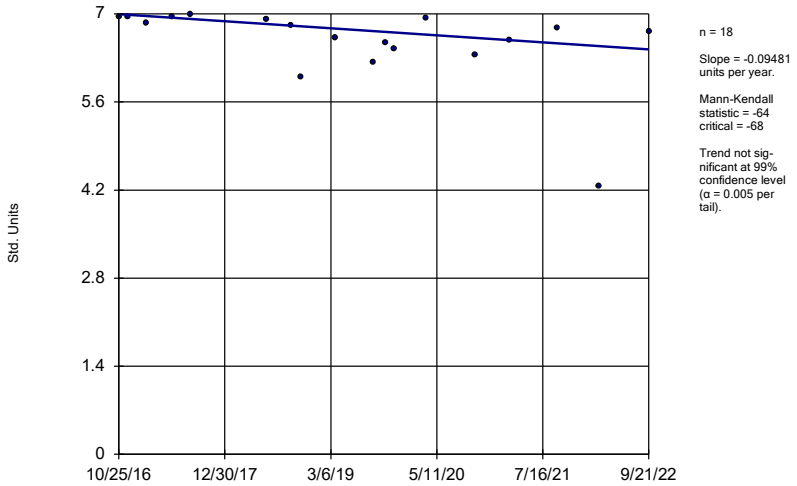
MCM-16 (bg)



Constituent: pH, field Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-17



n = 18

Slope = -0.09481 units per year.

Mann-Kendall statistic = -64
critical = -68

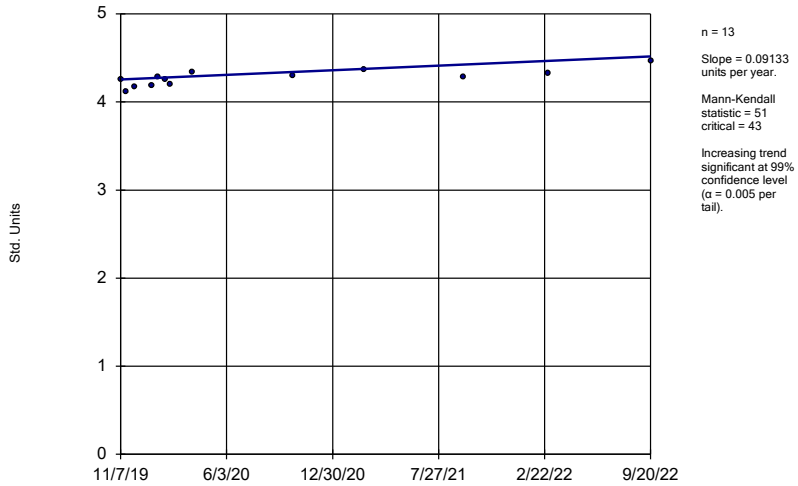
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, field Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MCM-18 (bg)



n = 13

Slope = 0.09133 units per year.

Mann-Kendall statistic = 51
critical = 43

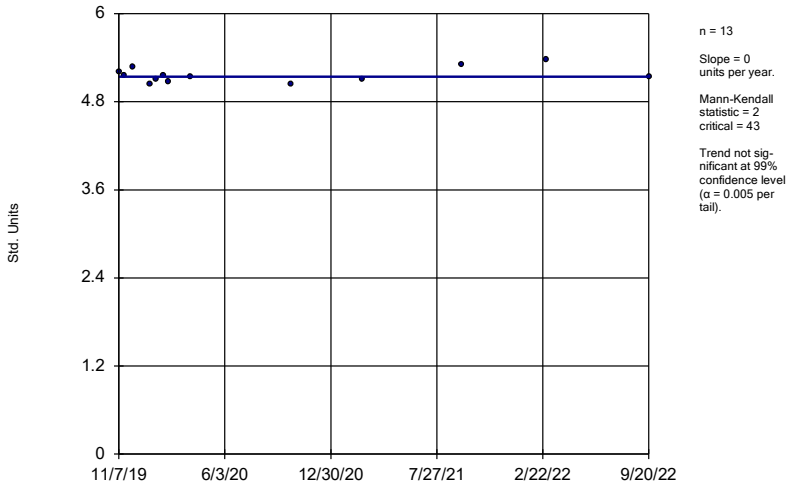
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, field Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MCM-19 (bg)



n = 13

Slope = 0 units per year.

Mann-Kendall statistic = 2
critical = 43

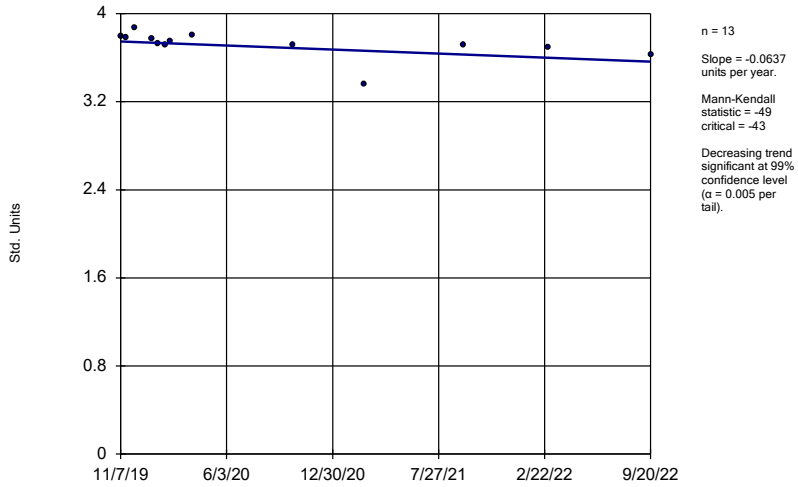
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, field Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MCM-20 (bg)



n = 13

Slope = -0.0637 units per year.

Mann-Kendall statistic = -49
critical = -43

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, field Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

FIGURE F.

Upper Tolerance Limit Summary Table

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/22/2022, 1:51 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.003	n/a	n/a	n/a	n/a	107	n/a	n/a	95.33	n/a	n/a	0.004135	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.032	n/a	n/a	n/a	n/a	126	n/a	n/a	14.29	n/a	n/a	0.00156	NP Inter(normality)
Barium (mg/L)	n/a	0.22	n/a	n/a	n/a	n/a	123	n/a	n/a	0	n/a	n/a	0.00182	NP Inter(normality)
Beryllium (mg/L)	n/a	0.021	n/a	n/a	n/a	n/a	122	n/a	n/a	27.05	n/a	n/a	0.001915	NP Inter(normality)
Cadmium (mg/L)	n/a	0.0043	n/a	n/a	n/a	n/a	100	n/a	n/a	92	n/a	n/a	0.005921	NP Inter(NDs)
Chromium (mg/L)	n/a	0.011	n/a	n/a	n/a	n/a	107	n/a	n/a	50.47	n/a	n/a	0.004135	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.036	n/a	n/a	n/a	n/a	122	n/a	n/a	72.95	n/a	n/a	0.001915	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	55.8	n/a	n/a	n/a	n/a	121	n/a	n/a	0	n/a	n/a	0.002016	NP Inter(normality)
Fluoride (mg/L)	n/a	1.5	n/a	n/a	n/a	n/a	126	n/a	n/a	50	n/a	n/a	0.00156	NP Inter(normality)
Lead (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a	122	n/a	n/a	83.61	n/a	n/a	0.001915	NP Inter(NDs)
Lithium (mg/L)	n/a	0.029	n/a	n/a	n/a	n/a	119	n/a	n/a	55.46	n/a	n/a	0.002234	NP Inter(NDs)
Mercury (mg/L)	n/a	0.0007	n/a	n/a	n/a	n/a	101	n/a	n/a	95.05	n/a	n/a	0.005625	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.01	n/a	n/a	n/a	n/a	106	n/a	n/a	90.57	n/a	n/a	0.004352	NP Inter(NDs)
Selenium (mg/L)	n/a	0.15	n/a	n/a	n/a	n/a	123	n/a	n/a	61.79	n/a	n/a	0.00182	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	n/a	n/a	n/a	106	n/a	n/a	92.45	n/a	n/a	0.004352	NP Inter(NDs)

FIGURE G.

MCMANUS ASH POND GWPS				
Constituent Name	**MCL**	**CCR-Rule Specified**	**Background Limit**	**GWPS**
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.032	0.032
Barium, Total (mg/L)	2		0.22	2
Beryllium, Total (mg/L)	0.004		0.021	0.021
Cadmium, Total (mg/L)	0.005		0.0043	0.005
Chromium, Total (mg/L)	0.1		0.011	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.036	0.036
Combined Radium, Total (pCi/L)	5		55.8	55.8
Fluoride, Total (mg/L)	4		1.5	4
Lead, Total (mg/L)	n/a	0.015	0.005	0.015
Lithium, Total (mg/L)	n/a	0.04	0.029	0.04
Mercury, Total (mg/L)	0.002		0.0007	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.01	0.1
Selenium, Total (mg/L)	0.05		0.15	0.15
Thallium, Total (mg/L)	0.002		0.001	0.002

**Grey cell indicates Background Limit is higher than MCL or CCR-Rule Specified Level*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residual*

**GWPS = Groundwater Protection Standard*

FIGURE H.

Confidence Intervals - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/22/2022, 2:00 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	**MCM-06**	**0.419**	**0.2642**	**0.032**	**Yes**	**20**	**0.3416**	**0.1364**	**0**	**None**	**No**	**0.01**	**Param.**
Lithium (mg/L)	**DPZ-02**	**0.09839**	**0.06881**	**0.04**	**Yes**	**7**	**0.07907**	**0.02995**	**14.29**	**None**	**x^4**	**0.01**	**Param.**
Lithium (mg/L)	**MCM-06**	**0.09647**	**0.0557**	**0.04**	**Yes**	**17**	**0.07608**	**0.03253**	**0**	**None**	**No**	**0.01**	**Param.**

Confidence Intervals - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/22/2022, 2:00 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	MCM-06	0.003	0.0029	0.006	No	15	0.002719	0.0007228	80	None	No	0.01	NP (NDs)
Antimony (mg/L)	MCM-14	0.003	0.0004	0.006	No	14	0.002814	0.0006949	92.86	None	No	0.01	NP (NDs)
Antimony (mg/L)	MCM-17	0.003	0.00078	0.006	No	14	0.002841	0.0005933	92.86	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DPZ-02	0.1	0.015	0.032	No	6	0.03267	0.0331	16.67	None	No	0.0155	NP (normality)
Arsenic (mg/L)	MCM-04	0.007099	0.002848	0.032	No	17	0.005459	0.004106	0	None	x^(1/3)	0.01	Param.
Arsenic (mg/L)	MCM-05	0.01548	0.004029	0.032	No	19	0.01484	0.01165	15.79	Kaplan-Meier	sqrt(x)	0.01	Param.
Arsenic (mg/L)	**MCM-06**	**0.419**	**0.2642**	**0.032**	**Yes**	**20**	**0.3416**	**0.1364**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	MCM-07	0.01945	0.01054	0.032	No	19	0.01559	0.007958	0	None	sqrt(x)	0.01	Param.
Arsenic (mg/L)	MCM-12	0.0063	0.001	0.032	No	16	0.004331	0.002576	56.25	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MCM-14	0.0067	0.0014	0.032	No	16	0.004863	0.002306	56.25	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MCM-17	0.0063	0.0018	0.032	No	17	0.004518	0.002169	47.06	None	No	0.01	NP (normality)
Barium (mg/L)	DPZ-02	0.09686	0.05994	2	No	5	0.0784	0.01101	0	None	No	0.01	Param.
Barium (mg/L)	MCM-04	0.07989	0.03217	2	No	16	0.06769	0.07126	0	None	ln(x)	0.01	Param.
Barium (mg/L)	MCM-05	0.04117	0.01055	2	No	17	0.04808	0.1054	0	None	ln(x)	0.01	Param.
Barium (mg/L)	MCM-06	0.1371	0.06635	2	No	17	0.1017	0.05647	0	None	No	0.01	Param.
Barium (mg/L)	MCM-07	0.2	0.1	2	No	16	0.1589	0.09263	0	None	No	0.01	NP (normality)
Barium (mg/L)	MCM-12	0.1257	0.09678	2	No	16	0.1113	0.02224	0	None	No	0.01	Param.
Barium (mg/L)	MCM-14	0.1267	0.05881	2	No	16	0.09276	0.05218	0	None	No	0.01	Param.
Barium (mg/L)	MCM-17	0.1326	0.0663	2	No	16	0.09943	0.05093	0	None	No	0.01	Param.
Beryllium (mg/L)	MCM-04	0.0025	0.00021	0.021	No	16	0.001129	0.001106	37.5	None	No	0.01	NP (normality)
Beryllium (mg/L)	MCM-05	0.0025	0.000054	0.021	No	17	0.002356	0.0005932	94.12	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MCM-07	0.0025	0.00012	0.021	No	16	0.002048	0.0009713	81.25	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MCM-12	0.001226	0.0005293	0.021	No	16	0.0009425	0.0006676	12.5	None	x^(1/3)	0.01	Param.
Beryllium (mg/L)	MCM-14	0.0025	0.0001	0.021	No	16	0.001753	0.001145	68.75	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MCM-17	0.002	0.0002	0.021	No	16	0.0009081	0.0008755	37.5	None	No	0.01	NP (normality)
Cadmium (mg/L)	MCM-04	0.0025	0.00043	0.005	No	13	0.002341	0.0005741	92.31	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MCM-07	0.0025	0.0002	0.005	No	13	0.002323	0.0006379	92.31	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MCM-17	0.0025	0.000093	0.005	No	13	0.002315	0.0006676	92.31	None	No	0.01	NP (NDs)
Chromium (mg/L)	MCM-04	0.01	0.00085	0.1	No	14	0.005025	0.004479	42.86	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-05	0.01	0.0007	0.1	No	14	0.005503	0.004676	50	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-06	0.01	0.001	0.1	No	15	0.00701	0.00438	66.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	MCM-07	0.01	0.002	0.1	No	14	0.005064	0.003825	35.71	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-12	0.01	0.005	0.1	No	14	0.007221	0.002319	35.71	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-14	0.01	0.0015	0.1	No	14	0.005198	0.00434	42.86	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-17	0.01225	0.007354	0.1	No	14	0.01063	0.003069	28.57	Kaplan-Meier	No	0.01	Param.
Cobalt (mg/L)	MCM-04	0.0063	0.0025	0.036	No	17	0.004518	0.002316	41.18	None	No	0.01	NP (normality)
Cobalt (mg/L)	MCM-05	0.0025	0.0019	0.036	No	17	0.002333	0.0005536	88.24	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-06	0.0025	0.0009	0.036	No	17	0.002276	0.0006399	88.24	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-07	0.0025	0.0011	0.036	No	16	0.002276	0.0006298	87.5	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-12	0.0025	0.00053	0.036	No	16	0.001762	0.0009856	62.5	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-14	0.0025	0.0006	0.036	No	16	0.002381	0.000475	93.75	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-17	0.0025	0.00052	0.036	No	16	0.001992	0.0009129	75	None	No	0.01	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	DPZ-02	9.978	5.787	55.8	No	4	7.883	0.9229	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-04	5.506	2.866	55.8	No	16	4.316	2.278	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-05	2.71	1.43	55.8	No	17	2.718	2.163	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MCM-06	8.58	1.83	55.8	No	16	5.191	3.243	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MCM-07	9.295	5.783	55.8	No	17	7.539	2.802	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-12	3.079	2.126	55.8	No	16	2.603	0.7328	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-14	7.329	3.467	55.8	No	17	5.398	3.082	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-17	8.82	2.22	55.8	No	17	5.269	3.011	0	None	No	0.01	NP (normality)
Fluoride (mg/L)	DPZ-02	0.11	0.1	4	No	5	0.102	0.004472	80	None	No	0.031	NP (NDs)
Fluoride (mg/L)	MCM-04	0.12	0.095	4	No	17	0.1331	0.1219	52.94	None	No	0.01	NP (NDs)
Fluoride (mg/L)	MCM-05	0.4419	0.2033	4	No	19	0.4058	0.2315	15.79	Kaplan-Meier	sqrt(x)	0.01	Param.
Fluoride (mg/L)	MCM-06	0.3	0.1	4	No	17	0.244	0.2623	47.06	None	No	0.01	NP (normality)
Fluoride (mg/L)	MCM-07	0.42	0.1	4	No	18	0.2748	0.2796	44.44	None	No	0.01	NP (normality)
Fluoride (mg/L)	MCM-12	1.28	0.987	4	No	17	1.1	0.3205	5.882	None	x^2	0.01	Param.
Fluoride (mg/L)	MCM-14	0.49	0.1	4	No	18	0.218	0.1922	55.56	None	No	0.01	NP (NDs)
Fluoride (mg/L)	MCM-17	1.2	0.1	4	No	18	0.5285	0.4963	38.89	None	No	0.01	NP (normality)

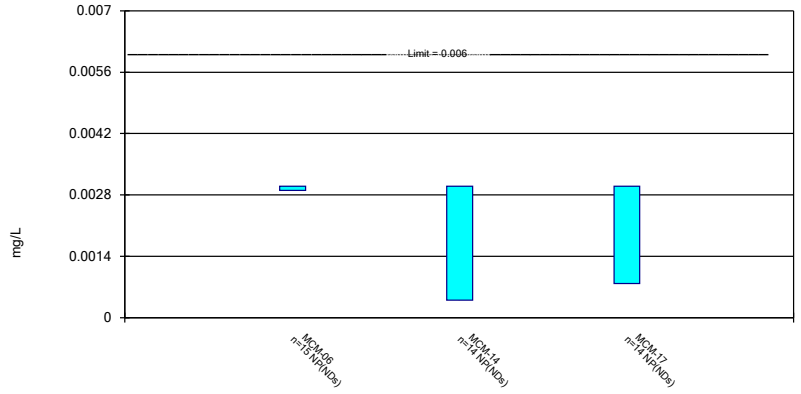
Confidence Intervals - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/22/2022, 2:00 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lead (mg/L)	MCM-05	0.005	0.0002	0.015	No	17	0.004718	0.001164	94.12	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-06	0.005	0.00012	0.015	No	17	0.004713	0.001184	94.12	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-07	0.005	0.0002	0.015	No	16	0.004086	0.001965	81.25	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-12	0.005	0.0001	0.015	No	16	0.003518	0.002276	68.75	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-14	0.005	0.00008	0.015	No	16	0.004692	0.00123	93.75	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-17	0.005	0.00027	0.015	No	16	0.003809	0.00213	75	None	No	0.01	NP (NDs)
Lithium (mg/L)	**DPZ-02**	**0.09839**	**0.06881**	**0.04**	**Yes**	**7**	**0.07907**	**0.02995**	**14.29**	**None**	**x^4**	**0.01**	**Param.**
Lithium (mg/L)	MCM-04	0.025	0.0015	0.04	No	16	0.01347	0.01192	50	None	No	0.01	NP (normality)
Lithium (mg/L)	MCM-05	0.0376	0.021	0.04	No	17	0.05995	0.1317	0	None	No	0.01	NP (normality)
Lithium (mg/L)	**MCM-06**	**0.09647**	**0.0557**	**0.04**	**Yes**	**17**	**0.07608**	**0.03253**	**0**	**None**	**No**	**0.01**	**Param.**
Lithium (mg/L)	MCM-07	0.04934	0.02023	0.04	No	17	0.04114	0.0352	0	None	ln(x)	0.01	Param.
Lithium (mg/L)	MCM-12	0.013	0.0102	0.04	No	16	0.01369	0.005744	18.75	None	No	0.01	NP (normality)
Lithium (mg/L)	MCM-14	0.04813	0.02964	0.04	No	17	0.03614	0.01761	5.882	None	x^2	0.01	Param.
Lithium (mg/L)	MCM-17	0.02516	0.01509	0.04	No	16	0.02013	0.007746	6.25	None	No	0.01	Param.
Mercury (mg/L)	MCM-04	0.00071	0.0002	0.002	No	13	0.0002392	0.0001414	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-05	0.0002	0.000042	0.002	No	13	0.0001878	0.00004382	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-06	0.0002	0.00016	0.002	No	14	0.0001971	0.00001069	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-07	0.00067	0.0002	0.002	No	13	0.0002362	0.0001304	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-14	0.00066	0.0002	0.002	No	13	0.0002354	0.0001276	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-17	0.00064	0.000036	0.002	No	13	0.0002212	0.0001337	84.62	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-04	0.01	0.00015	0.1	No	14	0.009296	0.002633	92.86	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-05	0.01	0.0099	0.1	No	14	0.008718	0.003238	78.57	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-06	0.01	0.0017	0.1	No	15	0.007307	0.003952	66.67	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-07	0.01	0.00095	0.1	No	14	0.009354	0.002419	92.86	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-17	0.01	0.0019	0.1	No	14	0.009421	0.002165	92.86	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-04	0.005	0.0025	0.15	No	16	0.00425	0.001681	81.25	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-05	0.005	0.0028	0.15	No	17	0.004359	0.001203	76.47	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-06	0.0054	0.0022	0.15	No	17	0.004353	0.001779	52.94	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-07	0.005	0.0023	0.15	No	16	0.004175	0.001255	56.25	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-12	0.005	0.0019	0.15	No	16	0.003637	0.001615	56.25	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-14	0.0057	0.0019	0.15	No	16	0.004144	0.001456	62.5	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-17	0.0067	0.0021	0.15	No	16	0.004262	0.001976	50	None	No	0.01	NP (normality)
Thallium (mg/L)	MCM-06	0.001	0.000076	0.002	No	15	0.0009384	0.0002386	93.33	None	No	0.01	NP (NDs)
Thallium (mg/L)	MCM-17	0.001	0.00014	0.002	No	14	0.0009386	0.0002298	92.86	None	No	0.01	NP (NDs)

Non-Parametric Confidence Interval

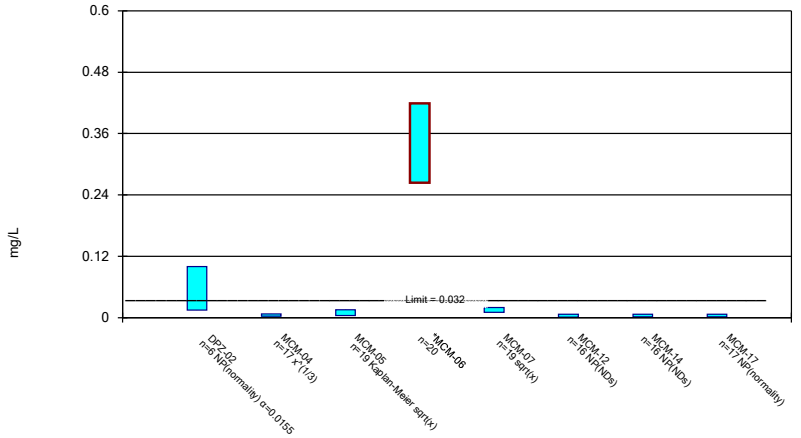
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony Analysis Run 12/22/2022 1:58 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Parametric and Non-Parametric (NP) Confidence Interval

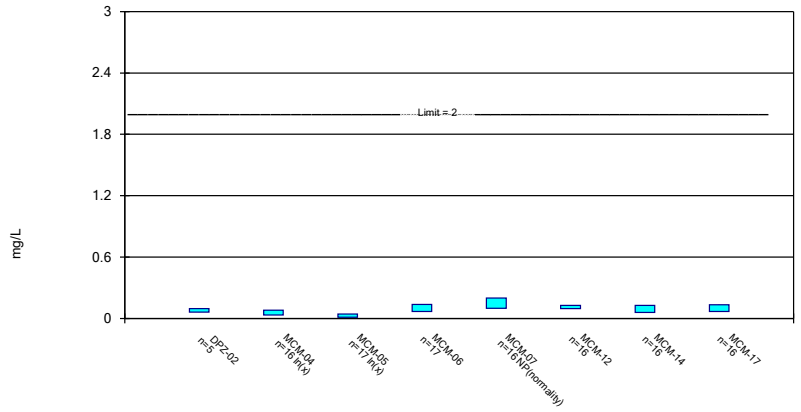
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on



Constituent: Arsenic Analysis Run 12/22/2022 1:58 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Parametric and Non-Parametric (NP) Confidence Interval

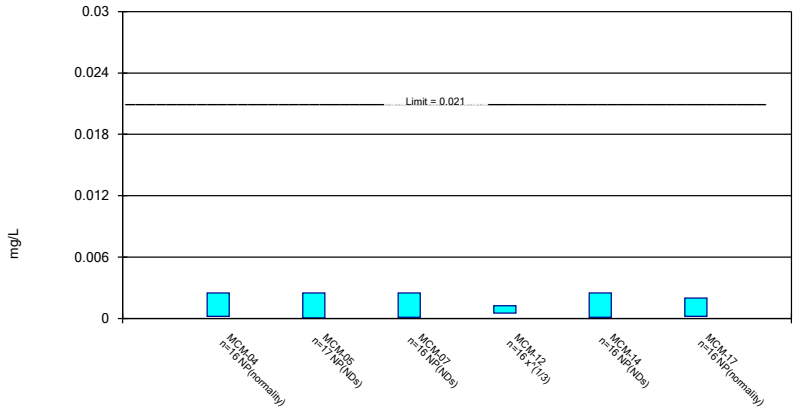
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 12/22/2022 1:58 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Parametric and Non-Parametric (NP) Confidence Interval

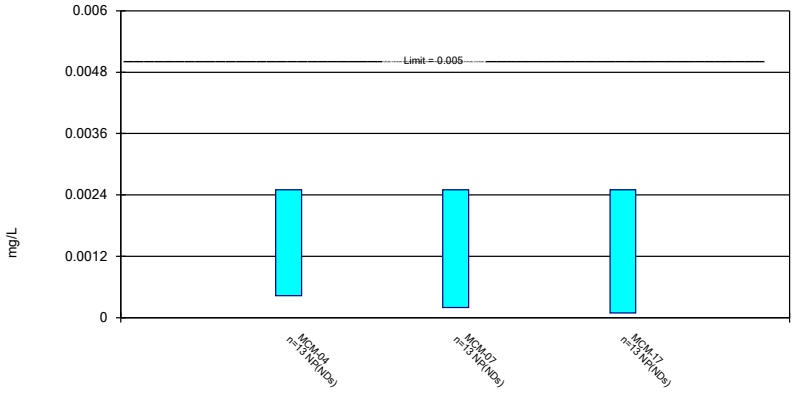
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 12/22/2022 1:58 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Non-Parametric Confidence Interval

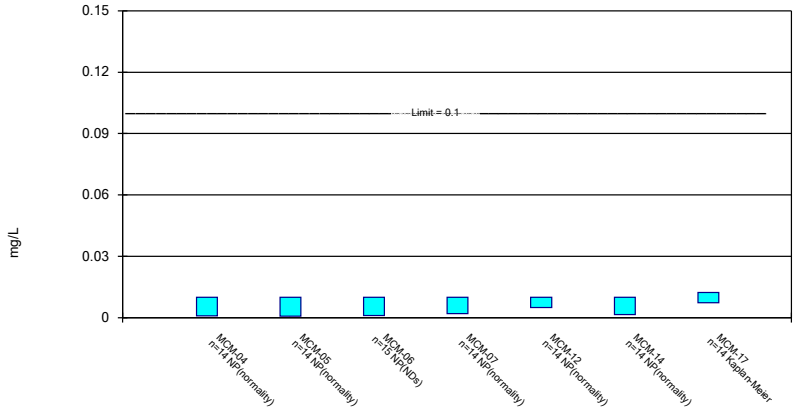
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Cadmium Analysis Run 12/22/2022 1:58 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Parametric and Non-Parametric (NP) Confidence Interval

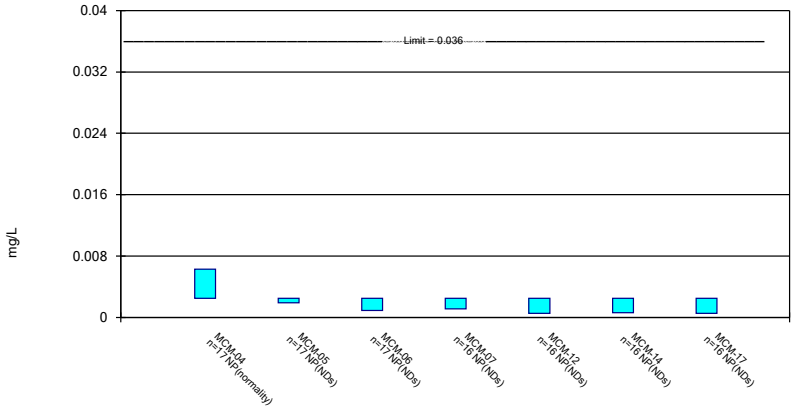
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 12/22/2022 1:58 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Non-Parametric Confidence Interval

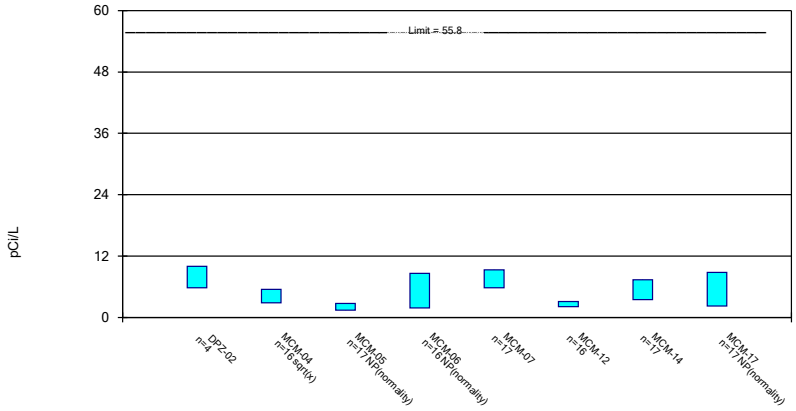
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Cobalt Analysis Run 12/22/2022 1:58 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Parametric and Non-Parametric (NP) Confidence Interval

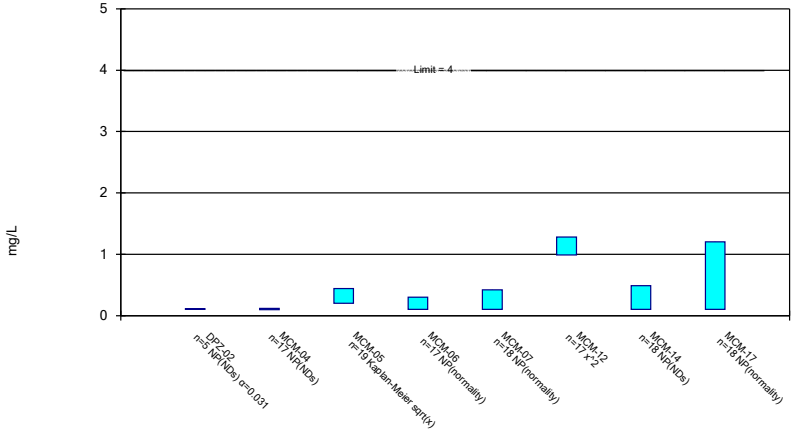
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 12/22/2022 1:58 PM View: Appendix IV - Confide
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Parametric and Non-Parametric (NP) Confidence Interval

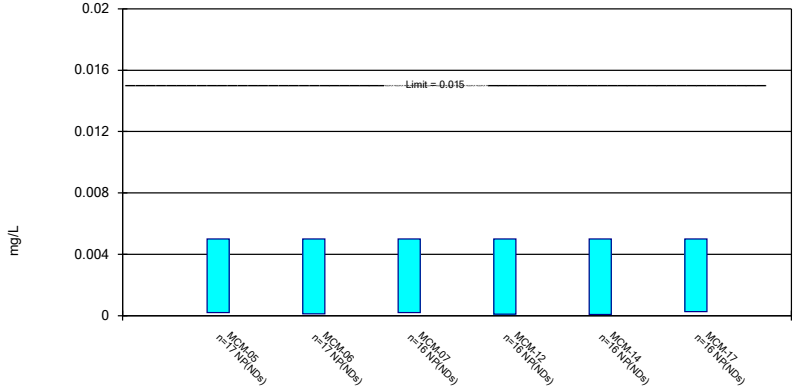
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based



Constituent: Fluoride Analysis Run 12/22/2022 1:58 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Non-Parametric Confidence Interval

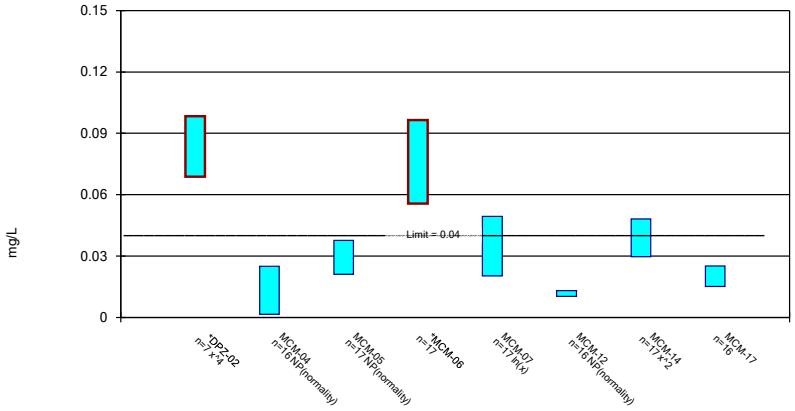
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 12/22/2022 1:58 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Parametric and Non-Parametric (NP) Confidence Interval

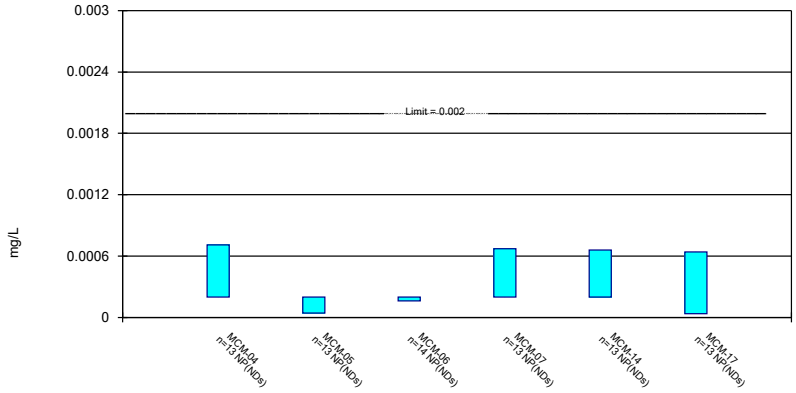
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



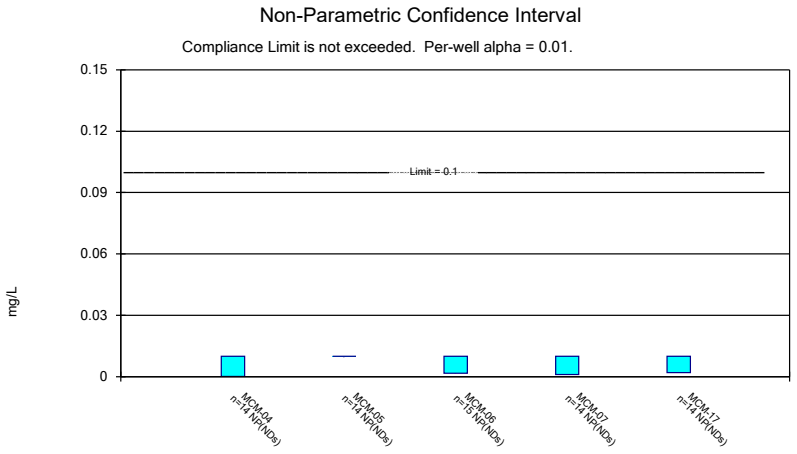
Constituent: Lithium Analysis Run 12/22/2022 1:58 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Non-Parametric Confidence Interval

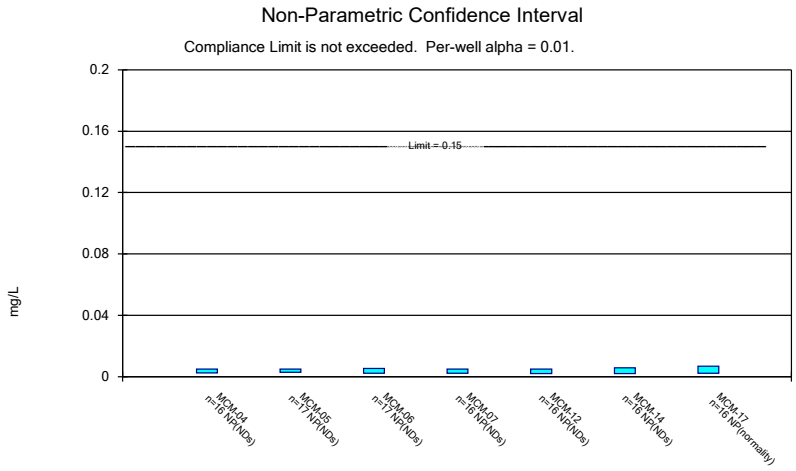
Compliance Limit is not exceeded. Per-well alpha = 0.01.



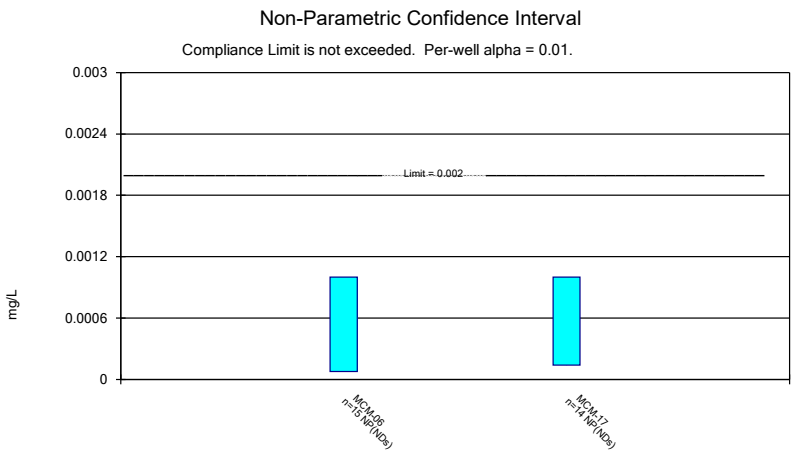
Constituent: Mercury Analysis Run 12/22/2022 1:58 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data



Constituent: Molybdenum Analysis Run 12/22/2022 1:58 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data



Constituent: Selenium Analysis Run 12/22/2022 1:58 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data



Constituent: Thallium Analysis Run 12/22/2022 1:58 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-06	MCM-14	MCM-17
8/30/2016		<0.003	
8/31/2016	<0.003		
10/25/2016			<0.003
11/30/2016	<0.003	<0.003	<0.003
2/15/2017		<0.003	<0.003
2/16/2017	<0.003		
5/31/2017		<0.003	<0.003
6/2/2017	<0.003		
8/15/2017			<0.003
8/16/2017		<0.003	
8/17/2017	<0.003		
6/19/2018		<0.003	<0.003
6/20/2018	<0.003		
9/25/2018		<0.003	
9/26/2018			0.00078
9/27/2018	<0.003		
11/6/2018		<0.003	<0.003
11/7/2018	<0.003		
3/6/2019	<0.003		
8/26/2019		0.0004 (J)	
8/27/2019			<0.003
8/28/2019	0.00098 (J)		
10/15/2019		<0.003	
10/16/2019			<0.003
10/17/2019	0.0009 (J)		
3/27/2020		<0.003	<0.003
3/28/2020	0.0029 (J)		
9/13/2021		<0.003	
9/14/2021	<0.003		<0.003
3/1/2022	<0.003		
3/3/2022		<0.003	<0.003
9/20/2022	<0.003		
9/21/2022		<0.003	<0.003
Mean	0.002719	0.002814	0.002841
Std. Dev.	0.0007228	0.0006949	0.0005933
Upper Lim.	0.003	0.003	0.003
Lower Lim.	0.0029	0.0004	0.00078

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
8/30/2016						<0.0063	<0.0063	
8/31/2016			<0.02	0.212	0.0066			
10/25/2016								<0.0063
11/30/2016			0.0132	0.129	0.0281	<0.0063	<0.0063	0.0072
2/15/2017						<0.0063	<0.0063	0.0017 (J)
2/16/2017			0.0372	0.257	0.0295			
5/31/2017						0.0007 (J)	0.0008 (J)	0.0018 (J)
6/1/2017		0.004 (J)						
6/2/2017			0.0335	0.0559	0.0286			
8/2/2017		0.0028 (J)						
8/15/2017						0.0006 (J)		0.0015 (J)
8/16/2017							0.0007 (J)	
8/17/2017		0.0021 (J)	0.0336	0.458	0.0211			
4/4/2018		0.0023 (J)						
5/8/2018		0.0048 (J)						
6/19/2018						0.001 (J)	0.0062 (J)	0.0029 (J)
6/20/2018		0.0099	0.019	0.44				
6/21/2018					0.022 (J)			
9/25/2018						0.0011 (J)	0.0031 (J)	
9/26/2018								0.0015 (J)
9/27/2018		0.01	0.0035 (J)	0.27	0.015			
11/6/2018		0.013			0.012		0.0014 (J)	<0.0063
11/7/2018			0.002 (J)	0.5		0.0057		
11/27/2018			0.0016 (J)	0.5	0.011			
3/6/2019				0.49				
3/26/2019			0.0018 (J)	0.3	0.0078			
7/2/2019		0.015 (J)		0.37	0.027			
8/26/2019							0.0022 (J)	
8/27/2019		0.0072				0.0011 (J)		0.0024 (J)
8/28/2019			0.0019 (J)	0.5	0.011			
10/15/2019		0.0038 (J)				0.0024 (J)	0.0067	
10/16/2019			0.0047 (J)					0.0043 (J)
10/17/2019				0.34	0.0046 (J)			
11/21/2019								0.0031 (J)
3/27/2020						<0.0063	<0.0063	<0.0063
3/28/2020	<0.1	0.0034 (J)	<0.02	0.3	0.012			
10/12/2020						<0.0063		
10/13/2020		0.0022 (J)					<0.0063	<0.0063
10/14/2020				0.43	0.013			
10/15/2020	0.021		0.024					
1/4/2021			0.0072					
3/2/2021						<0.0063	<0.0063	
3/3/2021								<0.0063
3/4/2021	0.017 (J)	0.0018 (J)	<0.02	0.35	0.015 (J)			
9/13/2021						<0.0063	<0.0063	
9/14/2021	0.022	0.0047 (J)	0.02 (J)	0.51	0.013 (J)			<0.0063
3/1/2022	0.015 (J)		0.011 (J)	0.24				
3/2/2022					0.009 (J)			
3/3/2022		0.0041				<0.0063	<0.0063	<0.0063
9/20/2022	0.021			0.18				
9/21/2022		0.0017 (J)	0.0077		0.01	<0.0063	<0.0063	<0.0063
Mean	0.03267	0.005459	0.01484	0.3416	0.01559	0.004331	0.004863	0.004518

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
Std. Dev.	0.0331	0.004106	0.01165	0.1364	0.007958	0.002576	0.002306	0.002169
Upper Lim.	0.1	0.007099	0.01548	0.419	0.01945	0.0063	0.0067	0.0063
Lower Lim.	0.015	0.002848	0.004029	0.2642	0.01054	0.001	0.0014	0.0018

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
8/30/2016						0.108	0.0131	
8/31/2016			0.0289	0.0498	0.0771			
10/25/2016								0.063
11/30/2016			0.0168	0.0528	0.101	0.121	0.0105	0.0628
2/15/2017						0.111	0.0786	0.0102
2/16/2017			0.016	0.0555	0.0865			
5/31/2017						0.131	0.0199	0.061
6/1/2017		0.0195						
6/2/2017			0.0393 (J)	0.0508	0.123			
8/2/2017		0.053						
8/15/2017						0.126		0.0579
8/16/2017							0.033	
8/17/2017		0.0475	0.0188	0.0596	0.124			
4/4/2018		0.035						
5/8/2018		0.027						
6/19/2018						0.13	0.092	0.076
6/20/2018		0.027	0.014	0.06				
6/21/2018					0.1			
9/25/2018						0.12	0.098	
9/26/2018								0.099
9/27/2018		0.14	0.0097 (J)	0.06	0.12			
11/6/2018		0.31			0.12		0.1	0.052
11/7/2018			0.0085 (J)	0.19		0.11		
3/6/2019				0.16				
8/26/2019							0.12	
8/27/2019		0.083				0.14		0.11
8/28/2019			0.011	0.13	0.4			
10/15/2019		0.082				0.14	0.12	
10/16/2019			0.012					0.14
10/17/2019				0.13	0.35			
3/27/2020						0.12	0.13	0.16
3/28/2020		0.039	0.0041 (J)	0.12	0.11			
10/12/2020						0.1		
10/13/2020		0.055					0.14	0.14
10/14/2020				0.14	0.19			
10/15/2020	0.071		0.45					
1/4/2021			0.051					
3/2/2021						0.1	0.16	
3/3/2021								0.17
3/4/2021	0.096	0.062	0.0082 (J)	0.14	0.2			
9/13/2021						0.086	0.16	
9/14/2021	0.082	0.043	0.08	0.22	0.2			0.2 (M1)
3/1/2022	0.074		0.035	0.084				
3/2/2022					0.12			
3/3/2022		0.031				0.069	0.15	0.1
9/20/2022	0.069			0.027				
9/21/2022		0.029	0.014		0.12	0.068	0.059	0.089
Mean	0.0784	0.06769	0.04808	0.1017	0.1589	0.1113	0.09276	0.09943
Std. Dev.	0.01101	0.07126	0.1054	0.05647	0.09263	0.02224	0.05218	0.05093
Upper Lim.	0.09686	0.07989	0.04117	0.1371	0.2	0.1257	0.1267	0.1326
Lower Lim.	0.05994	0.03217	0.01055	0.06635	0.1	0.09678	0.05881	0.0663

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-04	MCM-05	MCM-07	MCM-12	MCM-14	MCM-17
8/30/2016				0.0003 (J)	<0.0025	
8/31/2016		<0.0025	<0.0025			
10/25/2016						0.0004 (J)
11/30/2016		<0.0025	<0.0025	0.0004 (J)	<0.0025	0.0003 (J)
2/15/2017				0.0004 (J)	<0.0025	<0.002
2/16/2017		<0.0025	<0.0025			
5/31/2017				0.0005 (J)	0.0001 (J)	0.0002 (J)
6/1/2017	0.0001 (J)					
6/2/2017		<0.0025	<0.0025			
8/2/2017	0.0003 (J)					
8/15/2017				0.0005 (J)		0.0002 (J)
8/16/2017					0.0002 (J)	
8/17/2017	0.0002 (J)	<0.0025	<0.0025			
4/4/2018	<0.0025					
5/8/2018	0.00025 (J)					
6/19/2018				0.00065 (J)	<0.0025	0.00032 (J)
6/20/2018	0.00021 (J)	<0.0025				
6/21/2018			<0.0025			
9/25/2018				0.00066 (J)	5E-05 (J)	
9/26/2018						0.00024 (J)
9/27/2018	0.00031 (J)	<0.0025	7.4E-05 (J)			
11/6/2018	0.00077 (J)		0.00012 (J)		9.7E-05 (J)	0.00026 (J)
11/7/2018		5.4E-05 (J)		0.00058 (J)		
8/26/2019					0.0001 (J)	
8/27/2019	0.00032 (J)			0.0009 (J)		0.00018 (J)
8/28/2019		<0.0025	<0.0025			
10/15/2019	0.00035 (J)			0.00079 (J)	<0.0025	
10/16/2019		<0.0025				0.00014 (J)
10/17/2019			7.8E-05 (J)			
3/27/2020				<0.005	<0.0025	<0.002
3/28/2020	<0.0025	<0.0025	<0.0025			
10/12/2020				0.001 (J)		
10/13/2020	<0.0025				<0.0025	<0.002
10/14/2020			<0.0025			
10/15/2020		<0.0025				
1/4/2021		<0.0025				
3/2/2021				<0.005	<0.0025	
3/3/2021						<0.002
3/4/2021	<0.0025	<0.0025	<0.0025			
9/13/2021				0.0011	<0.0025	
9/14/2021	<0.0025	<0.0025	<0.0025			<0.002
3/1/2022		<0.0025				
3/2/2022			<0.0025			
3/3/2022	0.00025			0.0012 (J)	<0.0025	<0.002
9/21/2022	<0.0025	<0.0025	<0.0025	0.0011 (J)	<0.0025	0.00029 (J)
Mean	0.001129	0.002356	0.002048	0.0009425	0.001753	0.0009081
Std. Dev.	0.001106	0.0005932	0.0009713	0.0006676	0.001145	0.0008755
Upper Lim.	0.0025	0.0025	0.0025	0.001226	0.0025	0.002
Lower Lim.	0.00021	5.4E-05	0.00012	0.0005293	0.0001	0.0002

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-04	MCM-07	MCM-17
8/31/2016		<0.0025	
10/25/2016			<0.0025
11/30/2016		<0.0025	<0.0025
2/15/2017			<0.0025
2/16/2017		<0.0025	
5/31/2017			<0.0025
6/1/2017	<0.0025		
6/2/2017		<0.0025	
8/2/2017	<0.0025		
8/15/2017			<0.0025
8/17/2017	<0.0025	<0.0025	
4/4/2018	<0.0025		
5/8/2018	<0.0025		
6/19/2018			<0.0025
6/20/2018	<0.0025		
6/21/2018		<0.0025	
9/26/2018			9.3E-05
9/27/2018	<0.0025	<0.0025	
11/6/2018	<0.0025	<0.0025	<0.0025
8/27/2019	<0.0025		<0.0025
8/28/2019		<0.0025	
3/27/2020			<0.0025
3/28/2020	<0.0025	<0.0025	
9/14/2021	<0.0025	<0.0025	<0.0025
3/2/2022		<0.0025	
3/3/2022	0.00043		<0.0025
9/21/2022	<0.0025	0.0002 (J)	<0.0025
Mean	0.002341	0.002323	0.002315
Std. Dev.	0.0005741	0.0006379	0.0006676
Upper Lim.	0.0025	0.0025	0.0025
Lower Lim.	0.00043	0.0002	9.3E-05

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
8/30/2016					0.0054 (J)	0.0026 (J)	
8/31/2016		0.0013 (J)	0.001 (J)	0.0022 (J)			
10/25/2016							0.016
11/30/2016		0.0012 (J)	<0.01	<0.01	0.0073 (J)	0.0016 (J)	0.0151 (J)
2/15/2017					0.0045 (J)	0.0018 (J)	0.0137
2/16/2017		0.0012 (J)	0.0011 (J)	0.0028 (J)			
5/31/2017					0.0052 (J)	0.0019 (J)	0.0109
6/1/2017	0.0008 (J)						
6/2/2017		<0.01	<0.01	0.0023 (J)			
8/2/2017	0.0012 (J)						
8/15/2017					0.005 (J)		0.0117
8/16/2017						0.0019 (J)	
8/17/2017	0.0013 (J)	0.0007 (J)	0.0007 (J)	0.0022 (J)			
4/4/2018	<0.01						
5/8/2018	<0.01						
6/19/2018					0.0047 (J)	<0.01	0.013 (J)
6/20/2018	<0.01	<0.01	<0.01				
6/21/2018				<0.01			
9/25/2018					<0.01	<0.01	
9/26/2018							0.0092 (J)
9/27/2018	<0.01	<0.01	<0.01	0.0024 (J)			
11/6/2018	0.0017 (J)			0.002 (J)		<0.01	<0.01
11/7/2018		<0.01	<0.01		<0.01		
3/6/2019			<0.01				
8/26/2019						0.00071 (J)	
8/27/2019	0.0018 (J)				0.0056 (J)		0.0066 (J)
8/28/2019		0.00047 (J)	0.00085 (J)	0.0024 (J)			
10/15/2019	0.0012 (J)				0.0057 (J)	0.00076 (J)	
10/16/2019		0.00057 (J)					0.0063 (J)
10/17/2019			0.0015 (J)	0.0019 (J)			
3/27/2020					<0.01	<0.01	<0.01
3/28/2020	<0.01	<0.01	<0.01	<0.01			
9/13/2021					<0.01	<0.01	
9/14/2021	<0.01	<0.01	<0.01	<0.01			<0.01
3/1/2022		<0.01	<0.01				
3/2/2022				<0.01			
3/3/2022	0.00085 (J)				<0.01	<0.01	<0.01
9/20/2022			<0.01				
9/21/2022	0.0015 (J)	0.0016 (J)		0.0027 (J)	0.0077 (J)	0.0015 (J)	0.0063 (J)
Mean	0.005025	0.005503	0.00701	0.005064	0.007221	0.005198	0.01063
Std. Dev.	0.004479	0.004676	0.00438	0.003825	0.002319	0.00434	0.003069
Upper Lim.	0.01	0.01	0.01	0.01	0.01	0.01	0.01225
Lower Lim.	0.00085	0.0007	0.001	0.002	0.005	0.0015	0.007354

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
8/30/2016					<0.0025	0.0006 (J)	
8/31/2016		<0.0025	<0.0025	<0.0025			
10/25/2016							<0.0025
11/30/2016		<0.0025	0.0009 (J)	0.0011 (J)	<0.0025	<0.0025	0.0007 (J)
2/15/2017					<0.0025	<0.0025	<0.0025
2/16/2017		<0.0025	<0.0025	<0.0025			
5/31/2017					0.0005 (J)	<0.0025	<0.0025
6/1/2017	<0.0025						
6/2/2017		<0.0025	<0.0025	<0.0025			
8/2/2017	<0.0025						
8/15/2017					0.0005 (J)		0.0004 (J)
8/16/2017						<0.0025	
8/17/2017	<0.0025	<0.0025	0.0003 (J)	<0.0025			
4/4/2018	<0.0025						
5/8/2018	<0.0025						
6/19/2018					0.00053 (J)	<0.0025	<0.0025
6/20/2018	<0.0025	<0.0025	<0.0025				
6/21/2018				<0.0025			
9/25/2018					<0.0025	<0.0025	
9/26/2018							0.00052
9/27/2018	<0.0025	<0.0025	<0.0025	<0.0025			
11/6/2018	0.0048 (J)			<0.0025		<0.0025	<0.0025
11/7/2018		<0.0025	<0.0025		<0.0025		
3/6/2019			<0.0025				
8/26/2019						<0.0025	
8/27/2019	0.0078				0.0007 (J)		<0.0025
8/28/2019		<0.0025	<0.0025	<0.0025			
10/15/2019	0.0085				0.00054 (J)	<0.0025	
10/16/2019		<0.0025					<0.0025
10/17/2019			<0.0025	<0.0025			
11/20/2019	0.009						
3/27/2020					<0.0025	<0.0025	<0.0025
3/28/2020	0.0041 (J)	<0.0025	<0.0025	<0.0025			
10/12/2020					<0.0025		
10/13/2020	0.0063					<0.0025	<0.0025
10/14/2020			<0.0025	<0.0025			
10/15/2020		0.0019 (J)					
1/4/2021		<0.0025					
3/2/2021					<0.0025	<0.0025	
3/3/2021							<0.0025
3/4/2021	0.006	<0.0025	<0.0025	<0.0025			
9/13/2021					<0.0025	<0.0025	
9/14/2021	0.0054	<0.0025	<0.0025	<0.0025			<0.0025
3/1/2022		<0.0025	<0.0025				
3/2/2022				<0.0025			
3/3/2022	0.0049				<0.0025	<0.0025	<0.0025
9/20/2022			<0.0025				
9/21/2022	0.0025	0.00026 (J)		0.00031 (J)	0.00042 (J)	<0.0025	0.00025 (J)
Mean	0.004518	0.002333	0.002276	0.002276	0.001762	0.002381	0.001992
Std. Dev.	0.002316	0.0005536	0.0006399	0.0006298	0.0009856	0.000475	0.0009129
Upper Lim.	0.0063	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
Lower Lim.	0.0025	0.0019	0.0009	0.0011	0.00053	0.0006	0.00052

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
8/30/2016						1.4	1.31	
8/31/2016			2.39 (D)	2.47 (D)	5.4 (D)			
10/25/2016								2.22
11/30/2016			1.66	1.6	3.13	4.37	0.438 (U)	2.01
2/15/2017						2.21	0.3 (U)	1.56
2/16/2017			2.71	1.83	3.09			
5/31/2017						2.62	1.77	1.92
6/1/2017		1.9						
6/2/2017			1.99	2.45	7.56			
8/2/2017		5.01						
8/15/2017						2.69		2.47
8/16/2017							2.26	
8/17/2017		5.35	1.87	3.33	6.38			
4/4/2018		5.05						
5/8/2018		3.25						
6/19/2018						2.96	5.39	2.82
6/20/2018		3.53	1.95	2.84				
6/21/2018					5.24			
9/25/2018						2.23	6.22	
9/26/2018								3.15 (D)
9/27/2018		7.07	0.629 (U)	1.94	6.11			
11/6/2018		11			6.1		5.38	2.95
11/7/2018			1.41 (U)	8.58		2.14		
8/26/2019							7.68	
8/27/2019		4.4				2.91		5.82
8/28/2019			1.67	6.86	8.73			
10/15/2019		4.92				3.28	8.7	
10/16/2019			1.92					7.5
10/17/2019				7.85	7.97			
11/20/2019					9.8			
11/21/2019							7.34	8.89
3/27/2020						2.33	9.63	9.54
3/28/2020		4.16	1.44 (U)	11 (U)	11.7			
10/12/2020						2.66		
10/13/2020		3.71					7.43	7.75
10/14/2020				8.97	13.1			
10/15/2020			2.56					
1/4/2021			5.84					
4/6/2021	7.33	2.83	1.43 (U)	7.89	9.66	2.2	7.02	7.8
9/13/2021						2.54	8.38	
9/14/2021	6.97	2.69	7.15	8.11	10.3			8.82
3/1/2022	9.03		8.16 (U)	5.83 (U)				
3/2/2022					5.66 (U)			
3/3/2022		2.51				3.56 (U)	8	9.1
9/20/2022	8.2			1.51				
9/21/2022		1.67	1.42		8.23	1.54	4.52	5.26
Mean	7.883	4.316	2.718	5.191	7.539	2.603	5.398	5.269
Std. Dev.	0.9229	2.278	2.163	3.243	2.802	0.7328	3.082	3.011
Upper Lim.	9.978	5.506	2.71	8.58	9.295	3.079	7.329	8.82
Lower Lim.	5.787	2.866	1.43	1.83	5.783	2.126	3.467	2.22

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
8/30/2016						1.5	0.5	
8/31/2016			0.93	0.41	0.92			
10/25/2016								1.1
11/30/2016			0.93	0.61	0.99	1.4	0.49	1.3
2/15/2017						1.3	0.58	1.3
2/16/2017			0.6	0.3 (J)	0.54			
5/31/2017						1.2	0.56	1.3
6/1/2017		<0.1						
6/2/2017			0.34	0.19 (J)	0.42			
8/2/2017		0.27 (J)						
8/15/2017						1.2		1.2
8/16/2017							0.45	
8/17/2017		0.18 (J)	0.52	0.26 (J)	0.27 (J)			
4/4/2018		<0.1						
5/8/2018		0.56						
6/19/2018						0.91	<0.1	0.6
6/20/2018		0.033 (J)	0.5	0.22 (J)				
6/21/2018					0.28 (J)			
9/25/2018						1.1	<0.1	
9/26/2018								0.44 (D)
9/27/2018		0.12 (J)	0.32	0.068 (J)	0.32 (D)			
11/6/2018		<0.1			0.086 (J)		0.084 (J)	0.4
11/7/2018			0.35	10.3 (o)		<0.1		
3/6/2019				<0.1				
3/24/2019			0.32	0.19 (J)	0.14 (J)	0.99	0.14 (J)	0.31
3/25/2019		0.055 (J)						
8/26/2019							<0.1	
8/27/2019		<0.1				1.1		<0.1
8/28/2019			0.36	<0.1	<0.1			
10/15/2019		0.095 (J)				1	<0.1	
10/16/2019			0.41					0.083 (J)
10/17/2019				<0.1	<0.1			
11/20/2019			0.34		<0.1			
11/21/2019							<0.1	<0.1
3/27/2020						1.1	<0.1	<0.1
3/28/2020		<0.1	0.34	<0.1	<0.1			
10/12/2020						1.2		
10/13/2020		<0.1					<0.1	<0.1
10/14/2020				<0.1	<0.1			
10/15/2020	0.11		0.22					
1/4/2021			<0.1					
3/2/2021						1	<0.1	
3/3/2021								<0.1
3/4/2021	<0.1	<0.1	0.45	<0.1	<0.1			
9/13/2021						1.4	<0.1	
9/14/2021	<0.1	0.05	<0.1	<0.1	<0.1			<0.1
3/1/2022	<0.1		<0.1	<0.1				
3/2/2022					<0.1			
3/3/2022		<0.1				0.95	<0.1	<0.1
9/20/2022	<0.1			1.1 (J)				
9/21/2022		<0.1	0.48		0.18	1.3	0.12	0.78
Mean	0.102	0.1331	0.4058	0.244	0.2748	1.1	0.218	0.5285

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
Std. Dev.	0.004472	0.1219	0.2315	0.2623	0.2796	0.3205	0.1922	0.4963
Upper Lim.	0.11	0.12	0.4419	0.3	0.42	1.28	0.49	1.2
Lower Lim.	0.1	0.095	0.2033	0.1	0.1	0.987	0.1	0.1

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
8/30/2016				0.0001 (J)	<0.005	
8/31/2016	<0.005	<0.005	<0.005			
10/25/2016						<0.005
11/30/2016	0.0002 (J)	<0.005	<0.005	<0.005	<0.005	<0.005
2/15/2017				<0.005	<0.005	<0.005
2/16/2017	<0.005	<0.005	0.0002 (J)			
5/31/2017				9E-05 (J)	<0.005	<0.005
6/2/2017	<0.005	<0.005	<0.005			
8/15/2017				<0.005		0.0002 (J)
8/16/2017					8E-05 (J)	
8/17/2017	<0.005	<0.005	8E-05 (J)			
6/19/2018				<0.005	<0.005	<0.005
6/20/2018	<0.005	<0.005				
6/21/2018			<0.005			
9/25/2018				<0.005	<0.005	
9/26/2018						0.00027
9/27/2018	<0.005	<0.005	<0.005			
11/6/2018			<0.005		<0.005	<0.005
11/7/2018	<0.005	<0.005		<0.005		
3/6/2019		<0.005				
8/26/2019					<0.005	
8/27/2019				0.00022 (J)		0.00014 (J)
8/28/2019	<0.005	<0.005	0.0001 (J)			
10/15/2019				5.6E-05 (J)	<0.005	
10/16/2019	<0.005					0.00034 (J)
10/17/2019		0.00012 (J)	<0.005			
3/27/2020				<0.005	<0.005	<0.005
3/28/2020	<0.005	<0.005	<0.005			
10/12/2020				<0.005		
10/13/2020					<0.005	<0.005
10/14/2020		<0.005	<0.005			
10/15/2020	<0.005					
1/4/2021	<0.005					
3/2/2021				<0.005	<0.005	
3/3/2021						<0.005
3/4/2021	<0.005	<0.005	<0.005			
9/13/2021				<0.005	<0.005	
9/14/2021	<0.005	<0.005	<0.005			<0.005
3/1/2022	<0.005	<0.005				
3/2/2022			<0.005			
3/3/2022				<0.005	<0.005	<0.005
9/20/2022		<0.005				
9/21/2022	<0.005		<0.005	0.00083 (J)	<0.005	<0.005
Mean	0.004718	0.004713	0.004086	0.003518	0.004692	0.003809
Std. Dev.	0.001164	0.001184	0.001965	0.002276	0.00123	0.00213
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.0002	0.00012	0.0002	0.0001	8E-05	0.00027

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
8/30/2016						0.0102 (J)	0.0112 (J)	
8/31/2016			0.0219 (J)	0.0389 (J)	0.0122 (J)			
10/25/2016								0.007 (J)
11/30/2016			0.0333 (J)	0.0303 (J)	0.011 (J)	0.0106 (J)	<0.025	0.0086 (J)
2/15/2017						0.0115 (J)	0.0105 (J)	0.0149 (J)
2/16/2017			0.0376 (J)	0.05 (J)	0.0142 (J)			
5/31/2017						0.011 (J)	0.0106 (J)	0.019 (J)
6/1/2017		<0.025						
6/2/2017			0.0346 (J)	0.0477 (J)	0.0229 (J)			
8/2/2017		<0.025						
8/15/2017						0.0123 (J)		0.016 (J)
8/16/2017							0.0145 (J)	
8/17/2017		<0.025	0.0367 (J)	0.0645	0.0241 (J)			
4/4/2018		0.0013 (J)						
5/8/2018		0.0012 (J)						
6/19/2018						0.012 (J)	0.044 (J)	0.021 (J)
6/20/2018		0.0015 (J)	0.034 (J)	0.066 (J)				
6/21/2018					0.03 (J)			
9/25/2018						0.011 (J)	0.041 (J)	
9/26/2018								0.02 (J)
9/27/2018		0.0021 (J)	0.023 (J)	0.045 (J)	0.034 (J)			
11/6/2018		0.0038 (J)			0.037 (J)		0.047 (J)	0.017 (J)
11/7/2018			0.022 (J)	0.11		0.013 (J)		
3/6/2019				0.12				
8/26/2019							0.059	
8/27/2019		0.002 (J)				0.012 (J)		0.023 (J)
8/28/2019			0.023 (J)	0.13	0.12			
10/15/2019		0.0019 (J)				0.012 (J)	0.056 (J)	
10/16/2019			0.021 (J)					0.024 (J)
10/17/2019				0.12	0.096			
11/20/2019					0.12			
11/21/2019							0.052	
3/27/2020						<0.025	0.052	0.033 (J)
3/28/2020	0.078 (J)	<0.025	0.014 (J)	0.064	0.027 (J)			
6/16/2020	0.096 (J)							
10/12/2020						0.011 (J)		
10/13/2020		<0.025					0.046 (J)	0.028 (J)
10/14/2020				0.11	0.039 (J)			
10/15/2020	0.093		0.57					
1/4/2021			0.043 (J)					
3/2/2021						<0.025	0.046 (J)	
3/3/2021								<0.025
3/4/2021	0.094 (J)	<0.025	0.017 (J)	0.096 (J)	0.035 (J)			
9/13/2021						0.01 (J)	0.047	
9/14/2021	0.092	<0.025	0.042 (J)	0.084	0.035 (J)			0.035 (J)
3/1/2022	0.088 (J)		0.028 (J)	0.074				
3/2/2022					0.022 (J)			
3/3/2022		0.0017 (J)				<0.025	0.037 (J)	0.02 (J)
9/20/2022	<0.025			0.043				
9/21/2022		<0.025	0.018 (J)		0.02 (J)	0.0075 (J)	0.028	0.023 (J)
Mean	0.07907	0.01347	0.05995	0.07608	0.04114	0.01369	0.03614	0.02013
Std. Dev.	0.02995	0.01192	0.1317	0.03253	0.0352	0.005744	0.01761	0.007746

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
Upper Lim.	0.09839	0.025	0.0376	0.09647	0.04934	0.013	0.04813	0.02516
Lower Lim.	0.06881	0.0015	0.021	0.0557	0.02023	0.0102	0.02964	0.01509

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-04	MCM-05	MCM-06	MCM-07	MCM-14	MCM-17
8/30/2016					<0.0002	
8/31/2016		<0.0002	<0.0002	<0.0002		
10/25/2016						<0.0002
11/30/2016		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
2/15/2017					<0.0002	<0.0002
2/16/2017		<0.0002	<0.0002	<0.0002		
5/31/2017					<0.0002	<0.0002
6/1/2017	<0.0002					
6/2/2017		4.2E-05 (J)	<0.0002	<0.0002		
8/2/2017	<0.0002					
8/15/2017						<0.0002
8/16/2017					<0.0002	
8/17/2017	<0.0002	<0.0002	<0.0002	<0.0002		
4/4/2018	<0.0002					
5/8/2018	<0.0002					
6/19/2018					<0.0002	<0.0002
6/20/2018	<0.0002	<0.0002	<0.0002			
6/21/2018				<0.0002		
9/25/2018					<0.0002	
9/26/2018						3.6E-05
9/27/2018	<0.0002	<0.0002	<0.0002	<0.0002		
11/6/2018	0.00071			0.00067	0.00066	0.00064
11/7/2018		<0.0002	<0.0002			
3/6/2019			<0.0002			
8/26/2019					<0.0002	
8/27/2019	<0.0002					<0.0002
8/28/2019		<0.0002	<0.0002	<0.0002		
3/27/2020					<0.0002	<0.0002
3/28/2020	<0.0002	<0.0002	<0.0002	<0.0002		
9/13/2021					<0.0002	
9/14/2021	<0.0002	<0.0002	0.00016 (J)	<0.0002		<0.0002
3/1/2022		<0.0002	<0.0002			
3/2/2022				<0.0002		
3/3/2022	<0.0002				<0.0002	<0.0002
9/20/2022			<0.0002			
9/21/2022	<0.0002	<0.0002		<0.0002	<0.0002	<0.0002
Mean	0.0002392	0.0001878	0.0001971	0.0002362	0.0002354	0.0002212
Std. Dev.	0.0001414	4.382E-05	1.069E-05	0.0001304	0.0001276	0.0001337
Upper Lim.	0.00071	0.0002	0.0002	0.00067	0.00066	0.00064
Lower Lim.	0.0002	4.2E-05	0.00016	0.0002	0.0002	3.6E-05

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-04	MCM-05	MCM-06	MCM-07	MCM-17
8/31/2016		<0.01	<0.01	<0.01	
10/25/2016					<0.01
11/30/2016		<0.01	<0.01	<0.01	<0.01
2/15/2017					<0.01
2/16/2017		<0.01	<0.01	<0.01	
5/31/2017					<0.01
6/1/2017	<0.01				
6/2/2017		<0.01	<0.01	<0.01	
8/2/2017	<0.01				
8/15/2017					<0.01
8/17/2017	<0.01	0.0012 (J)	0.0025 (J)	<0.01	
4/4/2018	<0.01				
5/8/2018	<0.01				
6/19/2018					<0.01
6/20/2018	<0.01	<0.01	<0.01		
6/21/2018				<0.01	
9/26/2018					0.0019
9/27/2018	<0.01	<0.01	<0.01	<0.01	
11/6/2018	<0.01			<0.01	<0.01
11/7/2018		<0.01	0.0024 (J)		
3/6/2019			<0.01		
8/27/2019	<0.01				<0.01
8/28/2019		<0.01	0.0017 (J)	<0.01	
10/15/2019	<0.01				
10/16/2019		<0.01			<0.01
10/17/2019			0.0017 (J)	<0.01	
3/27/2020					<0.01
3/28/2020	<0.01	<0.01	<0.01	<0.01	
9/14/2021	<0.01	0.0099 (J)	<0.01	<0.01	<0.01
3/1/2022		<0.01	<0.01		
3/2/2022				<0.01	
3/3/2022	0.00015 (J)				<0.01
9/20/2022			0.0013 (J)		
9/21/2022	<0.01	0.00095 (J)		0.00095 (J)	<0.01
Mean	0.009296	0.008718	0.007307	0.009354	0.009421
Std. Dev.	0.002633	0.003238	0.003952	0.002419	0.002165
Upper Lim.	0.01	0.01	0.01	0.01	0.01
Lower Lim.	0.00015	0.0099	0.0017	0.00095	0.0019

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
8/30/2016					0.0011 (J)	<0.005	
8/31/2016		0.002 (J)	0.0015 (J)	0.0021 (J)			
10/25/2016							0.003 (J)
11/30/2016		0.0023 (J)	0.0054 (J)	<0.005	0.0023 (J)	<0.005	0.0087 (J)
2/15/2017					0.0021 (J)	0.0014 (J)	0.0067 (J)
2/16/2017		0.002 (J)	0.0022 (J)	0.0025 (J)			
5/31/2017					<0.005	<0.005	0.0018 (J)
6/1/2017	<0.005						
6/2/2017		<0.005	<0.005	<0.005			
8/2/2017	<0.005						
8/15/2017					0.0021 (J)		0.0025 (J)
8/16/2017						0.0018 (J)	
8/17/2017	<0.005	<0.005	0.002 (J)	0.0033 (J)			
4/4/2018	<0.005						
5/8/2018	<0.005						
6/19/2018					0.0017 (J)	<0.005	<0.005
6/20/2018	<0.005	<0.005	<0.005				
6/21/2018				<0.005			
9/25/2018					0.002 (J)	0.0019 (J)	
9/26/2018							0.0016 (J)
9/27/2018	<0.005	<0.005	<0.005	0.0023 (J)			
11/6/2018	0.0025 (J)			0.0048 (J)		0.0057 (J)	<0.005
11/7/2018		<0.005	0.0075 (J)		<0.005		
3/6/2019			0.0024 (J)				
8/26/2019						0.0025 (J)	
8/27/2019	<0.005				0.0019 (J)		0.0018 (J)
8/28/2019		<0.005	0.0014 (J)	0.0019 (J)			
10/15/2019	<0.005				<0.005	0.003 (J)	
10/16/2019		<0.005					<0.005
10/17/2019			0.0066 (J)	0.0049 (J)			
3/27/2020					<0.005	<0.005	<0.005
3/28/2020	<0.005	<0.005	<0.005	<0.005			
10/12/2020					<0.005		
10/13/2020	<0.005					<0.005	<0.005
10/14/2020			<0.005	<0.005			
10/15/2020		0.0028 (J)					
1/4/2021		<0.005					
3/2/2021					<0.005	<0.005	
3/3/2021							<0.005
3/4/2021	0.00038 (J)	<0.005	<0.005	<0.005			
9/13/2021					<0.005	<0.005	
9/14/2021	<0.005	<0.005	<0.005	<0.005			0.0021
3/1/2022		<0.005	<0.005				
3/2/2022				<0.005			
3/3/2022	0.00012 (J)				<0.005	<0.005	<0.005
9/20/2022			<0.005				
9/21/2022	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005
Mean	0.00425	0.004359	0.004353	0.004175	0.003637	0.004144	0.004262
Std. Dev.	0.001681	0.001203	0.001779	0.001255	0.001615	0.001456	0.001976
Upper Lim.	0.005	0.005	0.0054	0.005	0.005	0.0057	0.0067
Lower Lim.	0.0025	0.0028	0.0022	0.0023	0.0019	0.0019	0.0021

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-06	MCM-17
8/31/2016	<0.001	
10/25/2016		<0.001
11/30/2016	<0.001	<0.001
2/15/2017		<0.001
2/16/2017	<0.001	
5/31/2017		<0.001
6/2/2017	<0.001	
8/15/2017		<0.001
8/17/2017	<0.001	
6/19/2018		<0.001
6/20/2018	<0.001	
9/26/2018		0.00014
9/27/2018	<0.001	
11/6/2018		<0.001
11/7/2018	<0.001	
3/6/2019	<0.001	
8/27/2019		<0.001
8/28/2019	<0.001	
10/16/2019		<0.001
10/17/2019	7.6E-05 (J)	
3/27/2020		<0.001
3/28/2020	<0.001	
9/14/2021	<0.001	<0.001
3/1/2022	<0.001	
3/3/2022		<0.001
9/20/2022	<0.001	
9/21/2022		<0.001
Mean	0.0009384	0.0009386
Std. Dev.	0.0002386	0.0002298
Upper Lim.	0.001	0.001
Lower Lim.	7.6E-05	0.00014

ND substitution: RL or RL/2 if <15% NDs.

FIGURE I.

Appendix IV Trend Tests - All Results (No Significant)

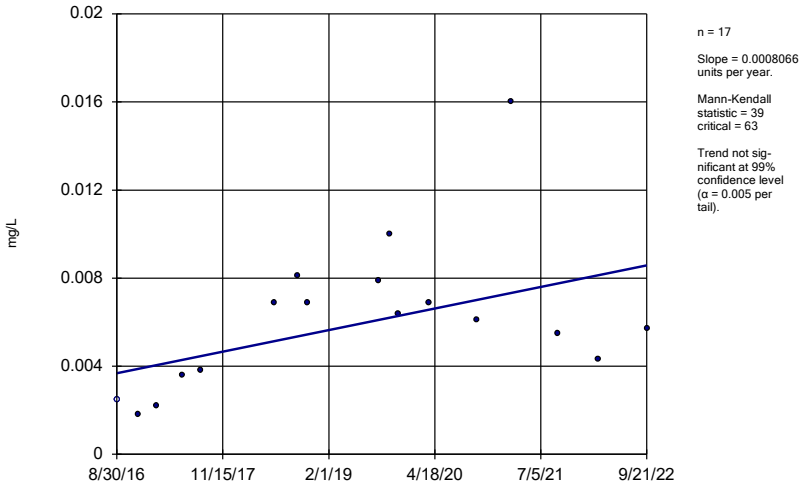
Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/22/2022, 2:04 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	MCM-01 (bg)	0.0008066	39	63	No	17	5.882	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-02 (bg)	0	3	63	No	17	41.18	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-06	0.02021	26	81	No	20	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-11 (bg)	-0.00233	-49	-68	No	18	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-15 (bg)	0.0001728	23	58	No	16	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-16 (bg)	0	-7	-58	No	16	50	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-18 (bg)	-0.001407	-37	-48	No	14	14.29	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-19 (bg)	-0.0005489	-7	-48	No	14	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-20 (bg)	0	1	48	No	14	0	n/a	n/a	0.01	NP
Lithium (mg/L)	DPZ-02	-0.003763	-9	-18	No	7	14.29	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-01 (bg)	0	-11	-58	No	16	87.5	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-02 (bg)	0	3	58	No	16	93.75	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-06	0.008391	38	63	No	17	0	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-11 (bg)	0	13	58	No	16	43.75	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-15 (bg)	0	17	58	No	16	56.25	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-16 (bg)	0	-11	-58	No	16	87.5	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-18 (bg)	0.007745	22	34	No	11	54.55	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-19 (bg)	-0.0007766	-13	-48	No	14	7.143	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-20 (bg)	0	-1	-48	No	14	0	n/a	n/a	0.01	NP

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MCM-01 (bg)



n = 17

Slope = 0.0008066 units per year.

Mann-Kendall statistic = 39
critical = 63

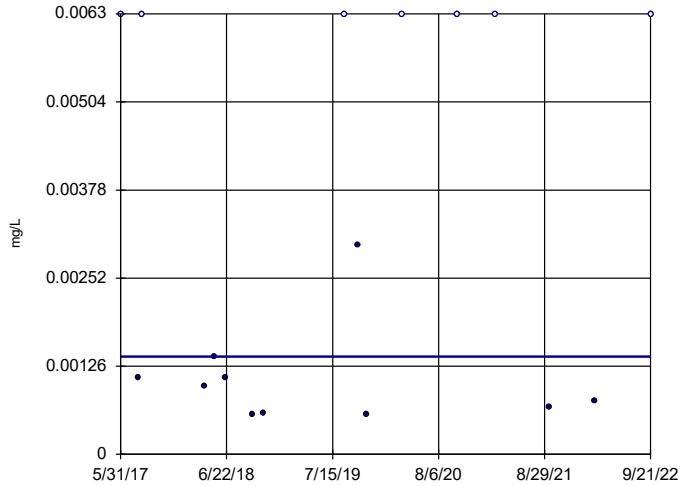
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Arsenic Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MCM-02 (bg)



n = 17

Slope = 0
units per year.

Mann-Kendall statistic = 3
critical = 63

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Arsenic Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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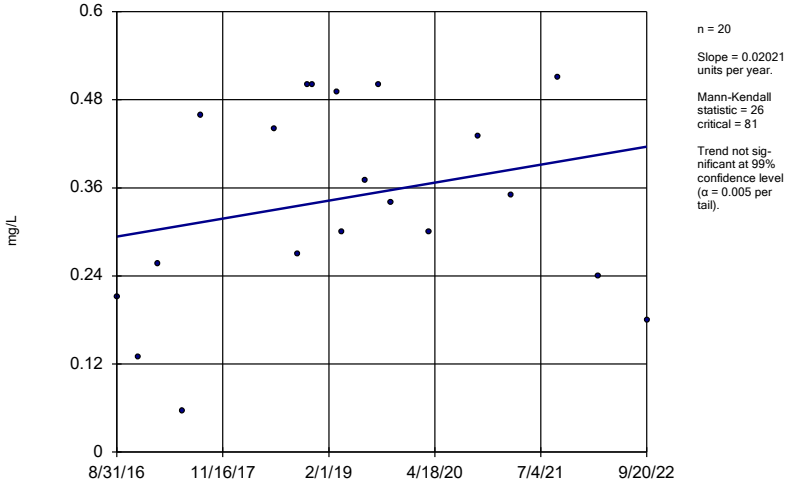
Sen's Slope Estimator

MCM-06



n = 20

Slope = 0.02021 units per year.

Mann-Kendall statistic = 26
critical = 81

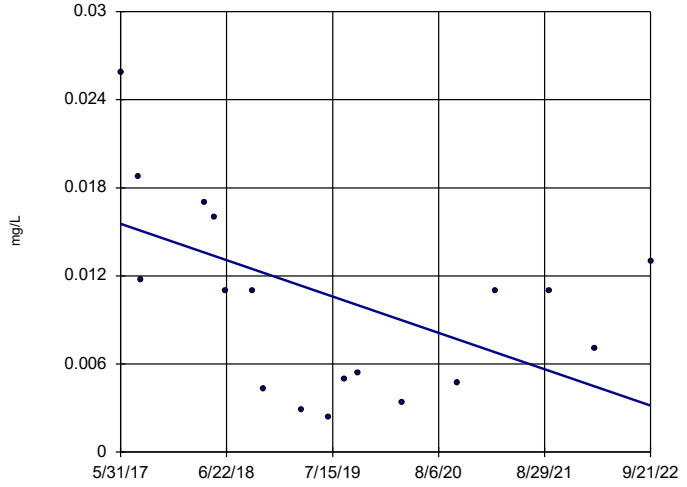
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Arsenic Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MCM-11 (bg)



n = 18

Slope = -0.00233 units per year.

Mann-Kendall statistic = -49
critical = -68

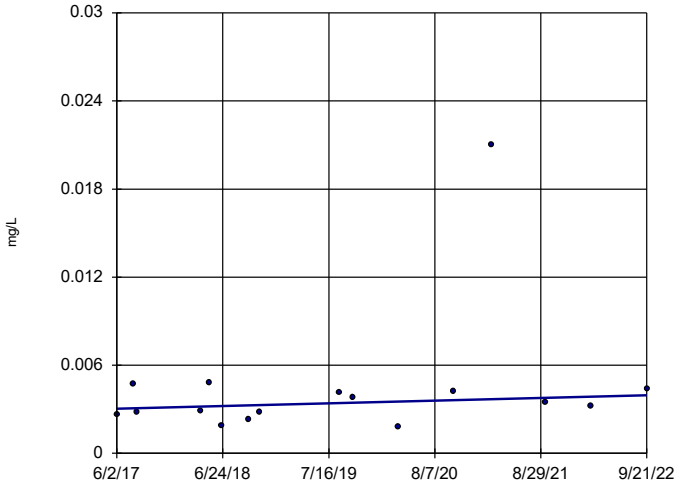
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Arsenic Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MCM-15 (bg)



n = 16

Slope = 0.0001728 units per year.

Mann-Kendall statistic = 23 critical = 58

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Arsenic Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests

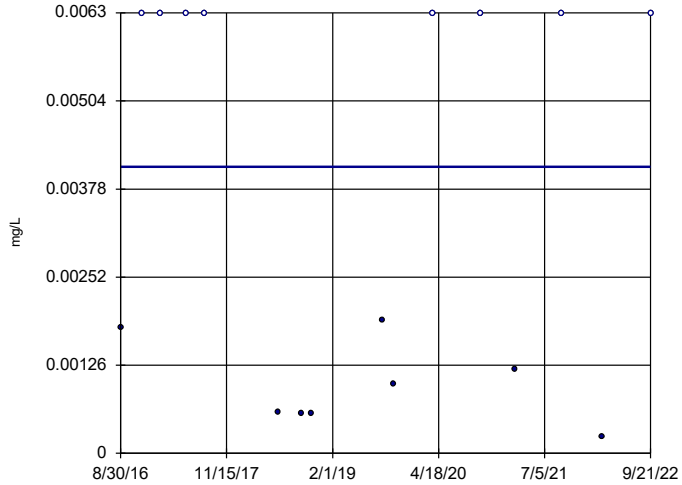
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

MCM-16 (bg)



n = 16

Slope = 0 units per year.

Mann-Kendall statistic = -7 critical = -58

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Arsenic Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests

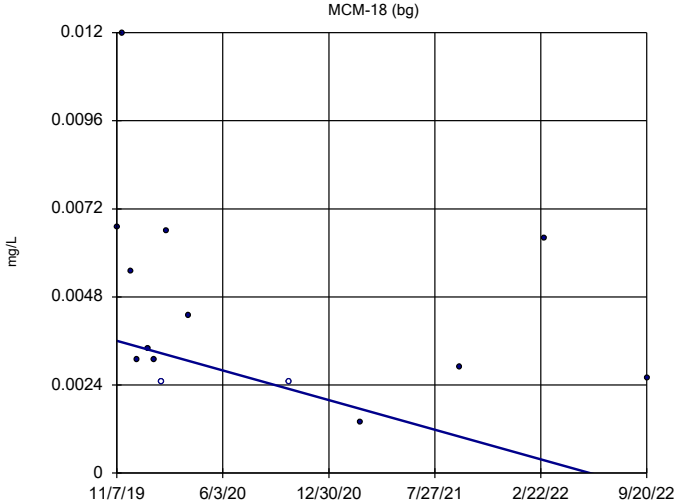
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

MCM-18 (bg)



n = 14

Slope = -0.001407 units per year.

Mann-Kendall statistic = -37 critical = -48

Trend not significant at 99% confidence level (α = 0.005 per tail).

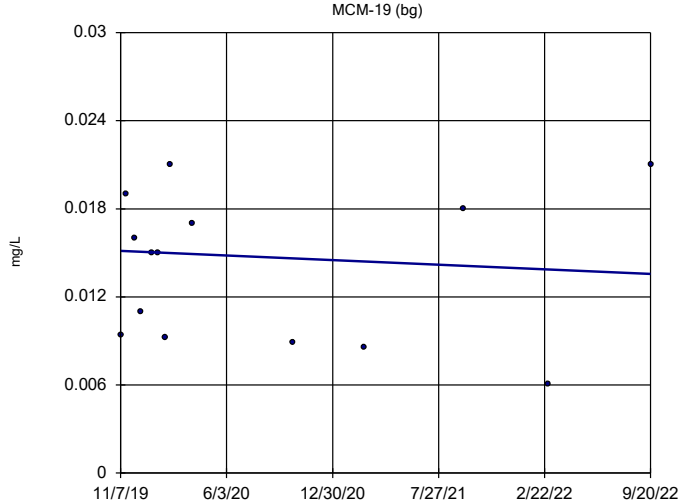
Constituent: Arsenic Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MCM-19 (bg)



n = 14

Slope = -0.0005489 units per year.

Mann-Kendall statistic = -7 critical = -48

Trend not significant at 99% confidence level (α = 0.005 per tail).

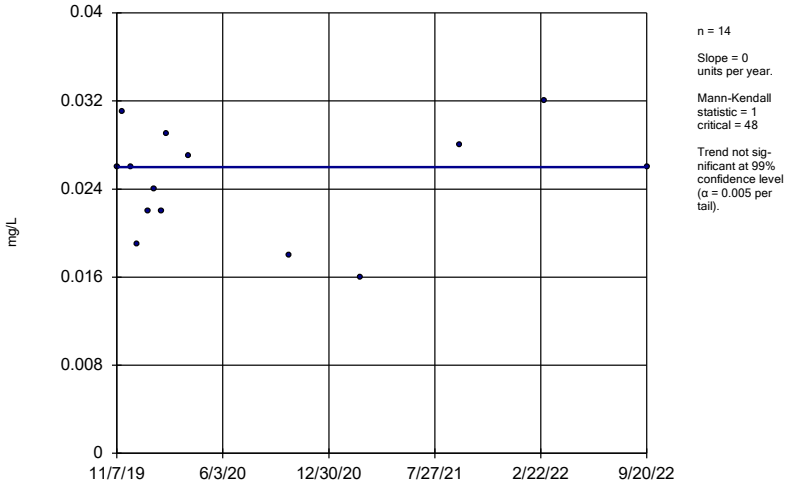
Constituent: Arsenic Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MCM-20 (bg)



n = 14

Slope = 0 units per year.

Mann-Kendall statistic = 1 critical = 48

Trend not sig-nificant at 99% confidence level (α = 0.005 per tail).

Constituent: Arsenic Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests

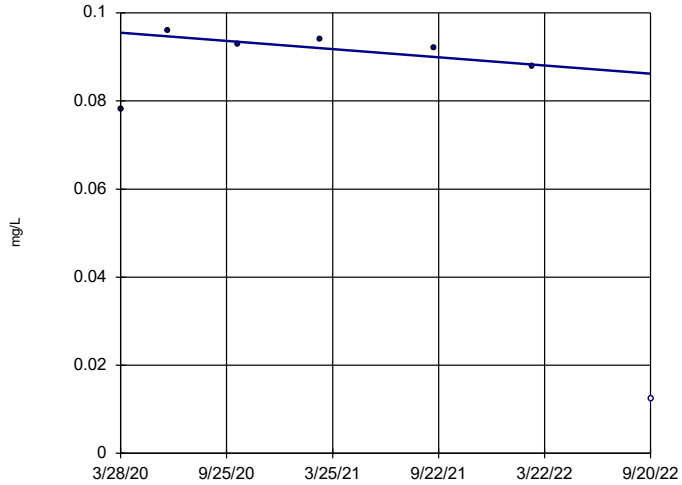
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

DPZ-02



n = 7

Slope = -0.003763 units per year.

Mann-Kendall statistic = -9 critical = -18

Trend not sig-nificant at 99% confidence level (α = 0.005 per tail).

Constituent: Lithium Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests

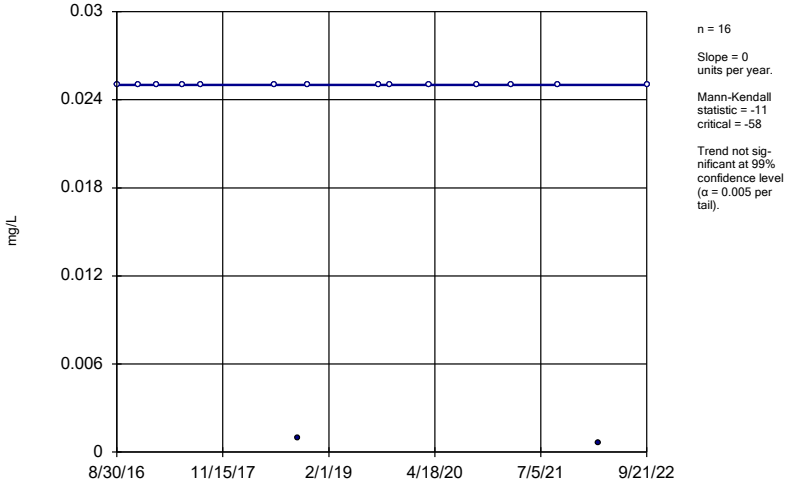
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

MCM-01 (bg)



n = 16

Slope = 0 units per year.

Mann-Kendall statistic = -11 critical = -58

Trend not sig-nificant at 99% confidence level (α = 0.005 per tail).

Constituent: Lithium Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests

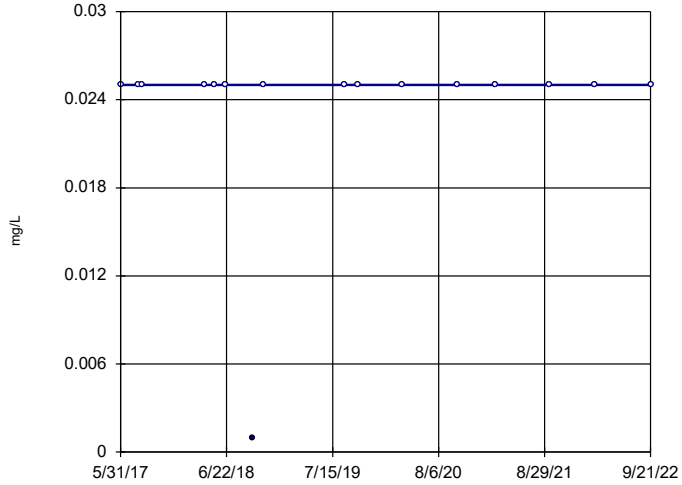
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

MCM-02 (bg)



n = 16

Slope = 0 units per year.

Mann-Kendall statistic = 3 critical = 58

Trend not sig-nificant at 99% confidence level (α = 0.005 per tail).

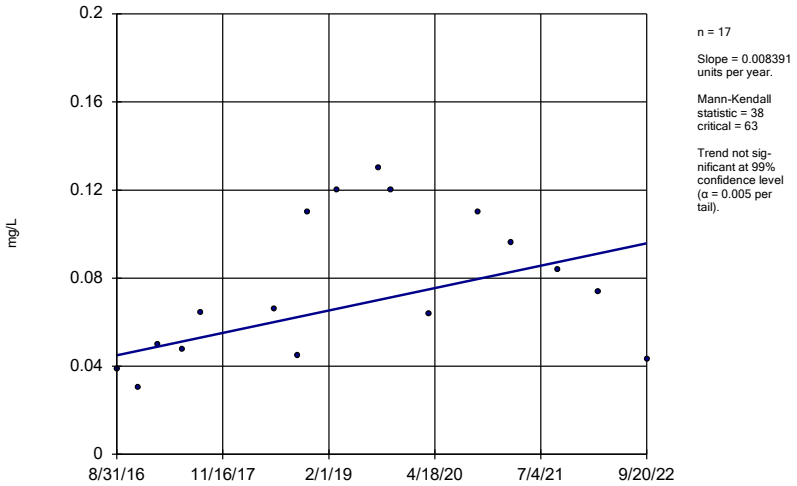
Constituent: Lithium Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MCM-06



Constituent: Lithium Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests

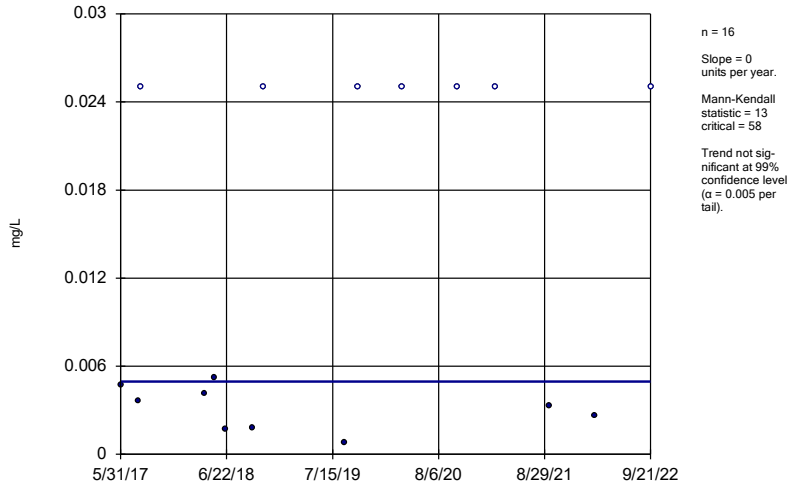
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

MCM-11 (bg)



Constituent: Lithium Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests

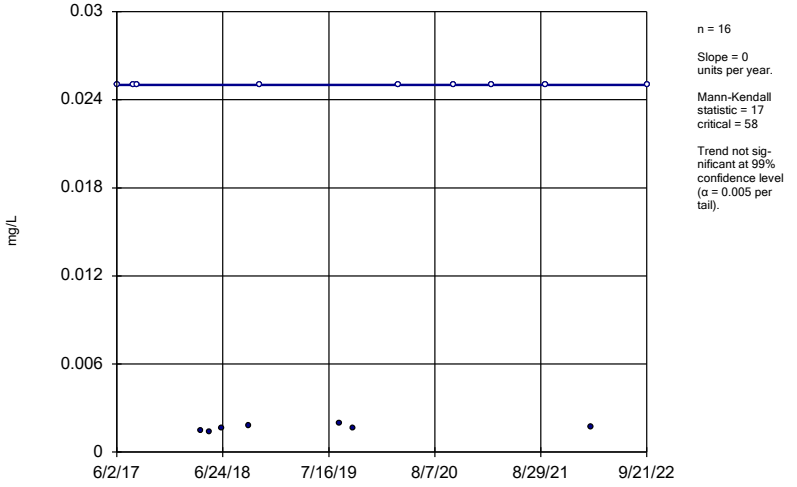
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

MCM-15 (bg)



Constituent: Lithium Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests

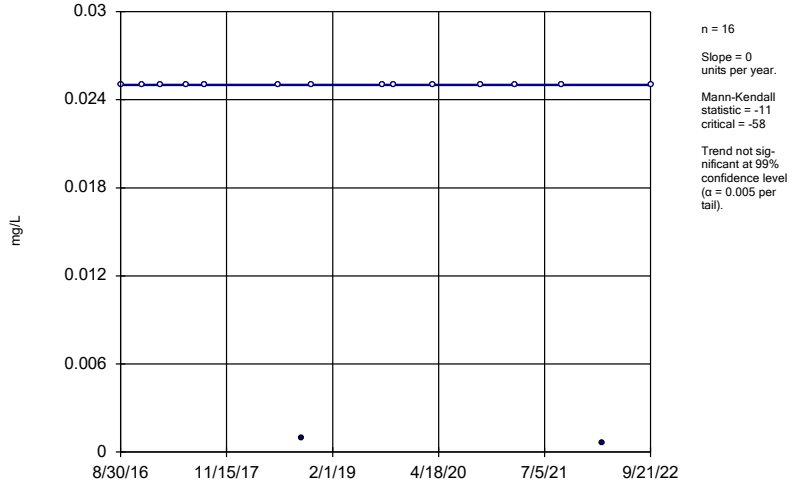
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

MCM-16 (bg)



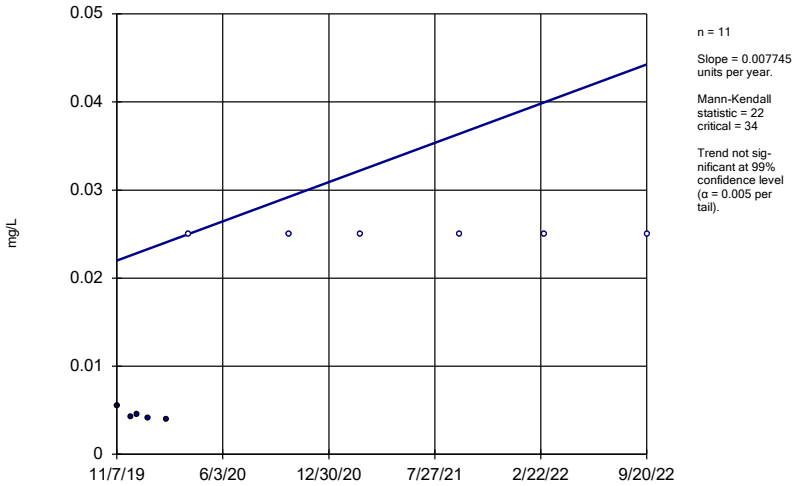
Constituent: Lithium Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MCM-18 (bg)



n = 11

Slope = 0.007745 units per year.

Mann-Kendall statistic = 22
critical = 34

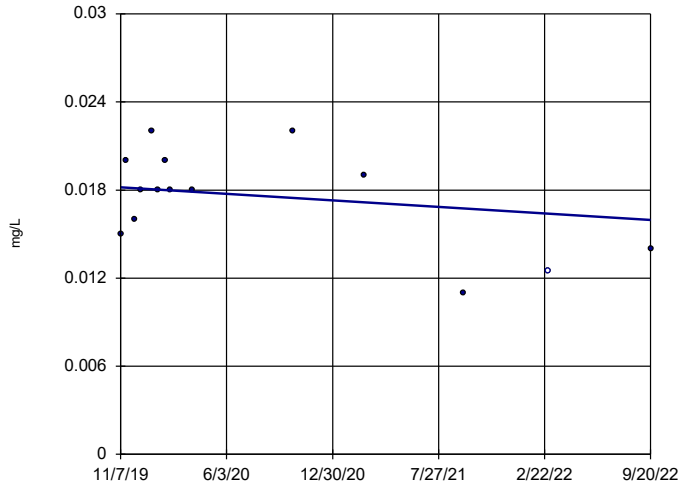
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Lithium Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MCM-19 (bg)



n = 14

Slope = -0.0007766 units per year.

Mann-Kendall statistic = -13
critical = -48

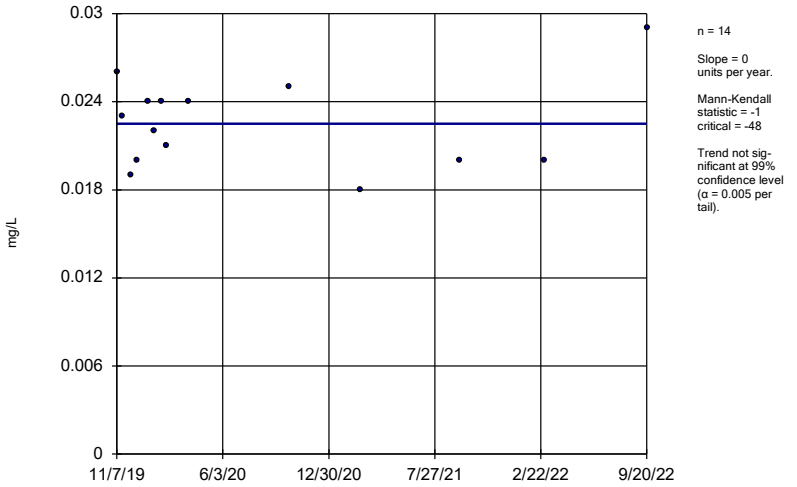
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Lithium Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.36 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MCM-20 (bg)



n = 14

Slope = 0 units per year.

Mann-Kendall statistic = -1
critical = -48

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Lithium Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

APPENDIX E

ANNUAL POTABLE WELL SURVEY
ENVIRONMENTAL DATA RESOURCES (EDR)
GEOCHECK®

Plant Mcmanus
1 Crispen Island Drive
Brunswick, GA 31523

Inquiry Number: 7195410.1s
December 05, 2022

The EDR GeoCheck® Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION **PAGE**

GEOCHECK ADDENDUM

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

GEOCHECK® - PHYSICAL SETTING SOURCE REPORT

TARGET PROPERTY ADDRESS

PLANT MCMANUS
1 CRISPEN ISLAND DRIVE
BRUNSWICK, GA 31523

TARGET PROPERTY COORDINATES

Latitude (North):	31.217773 - 31ˆ 13’ 3.98’’
Longitude (West):	81.544019 - 81ˆ 32’ 38.47’’
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	448181.6
UTM Y (Meters):	3453679.8
Elevation:	4 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	31081-B5 BRUNSWICK WEST, GA
Version Date:	1993

EDR’s GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

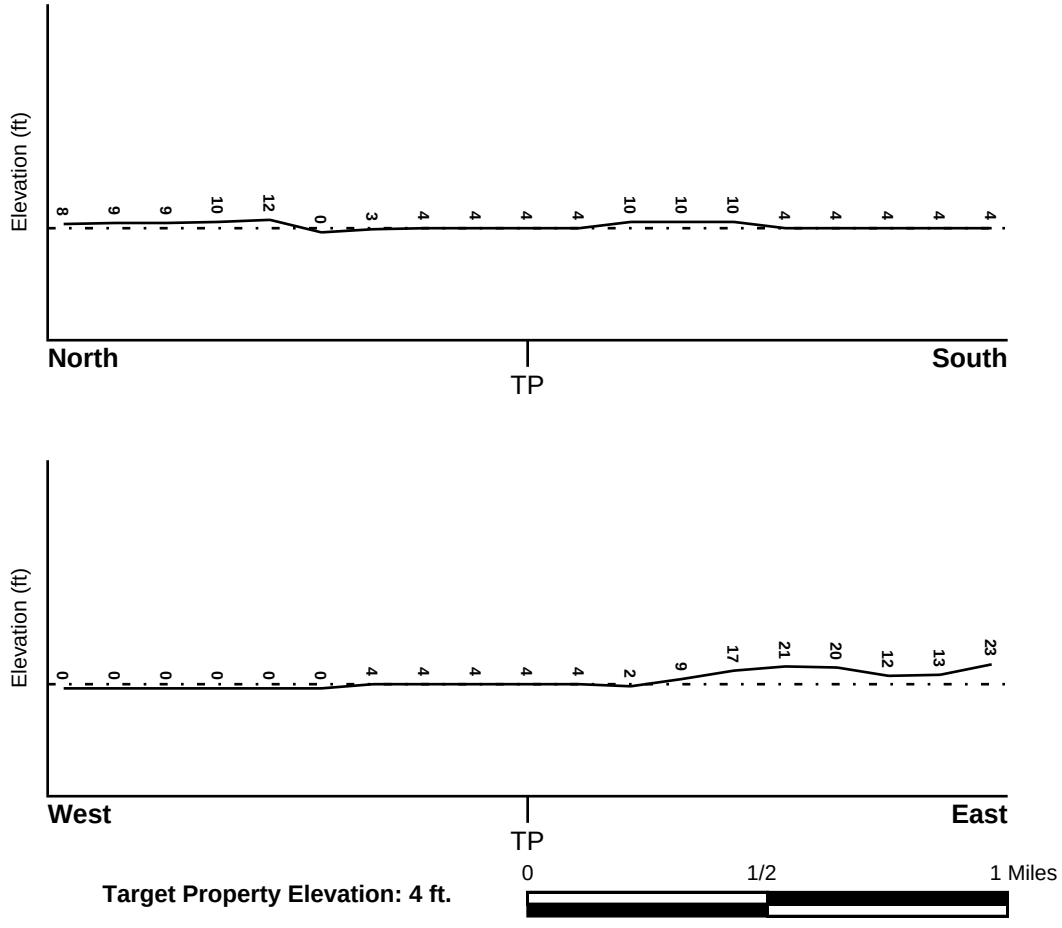
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NNE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Target Property Elevation: 4 ft.

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
13127C0208F	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
13127C0206F	FEMA FIRM Flood data
13039C0075F	FEMA FIRM Flood data
13127C0209F	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
BRUNSWICK WEST	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

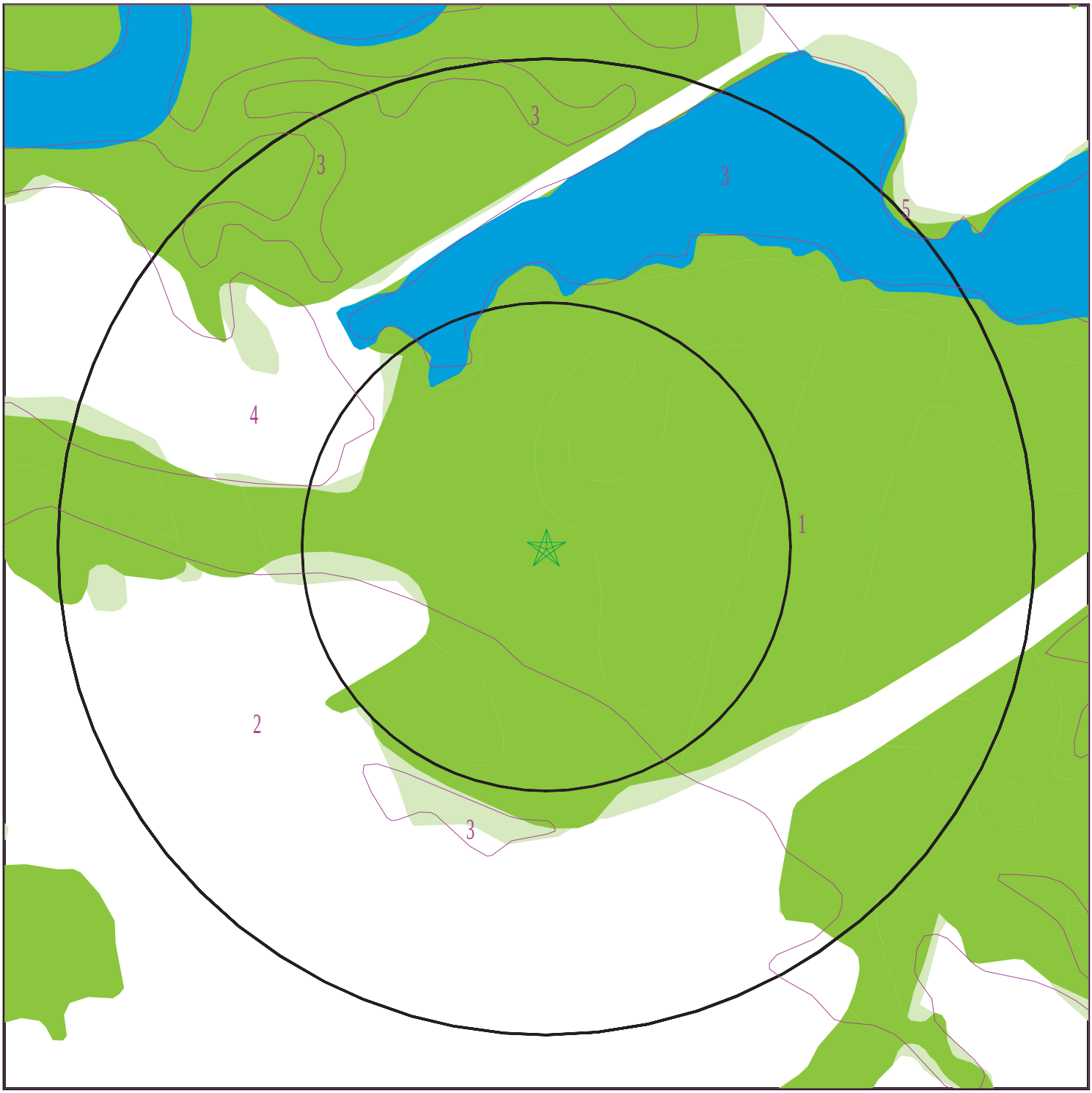
Era:	Cenozoic
System:	Quaternary
Series:	Holocene
Code:	Qh *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 7195410.1s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Plant Mcmanus	CLIENT:	ARCADIS U.S., Inc.
ADDRESS:	1 Crispen Island Drive Brunswick GA 31523	CONTACT:	Becky Steever
LAT/LONG:	31.217773 / 81.544019	INQUIRY #:	7195410.1s
		DATE:	December 05, 2022 1:32 pm

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Bohicket

Soil Surface Texture: stratified silty clay loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Very poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	stratified silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 0.42 Min: 0.01	Max: 8.4 Min: 6.1
2	7 inches	64 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 0.42 Min: 0.01	Max: 8.4 Min: 6.1

Soil Map ID: 2

Soil Component Name: Mandarin

Soil Surface Texture: fine sand

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 77 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	18 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Fine Sand.	Not reported	Max: 14 Min: 4	Max: 7.3 Min: 3.6
2	18 inches	33 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Fine Sand.	Not reported	Max: 14 Min: 4	Max: 7.3 Min: 3.6
3	33 inches	61 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Fine Sand.	Not reported	Max: 14 Min: 4	Max: 7.3 Min: 3.6
4	61 inches	79 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Fine Sand.	Not reported	Max: 14 Min: 4	Max: 7.3 Min: 3.6

Soil Map ID: 3

Soil Component Name: Water

Soil Surface Texture: fine sand

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class:
Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 4

Soil Component Name: Sapelo

Soil Surface Texture: fine sand

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 31 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 14 Min: 1.4	Max: 5.5 Min: 3.6
2	16 inches	25 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 14 Min: 1.4	Max: 5.5 Min: 3.6
3	25 inches	48 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 14 Min: 1.4	Max: 5.5 Min: 3.6
4	48 inches	83 inches	sandy clay loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 14 Min: 1.4	Max: 5.5 Min: 3.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 5

Soil Component Name: Pottsburg

Soil Surface Texture: sand

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 84 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	sand	Granular materials (35 pct. or less passing No. 200), Fine Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6 Min: 3.6
2	9 inches	62 inches	sand	Granular materials (35 pct. or less passing No. 200), Fine Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6 Min: 3.6
3	62 inches	79 inches	sand	Granular materials (35 pct. or less passing No. 200), Fine Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6 Min: 3.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	1.000
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A5	USGS40000255109	1/4 - 1/2 Mile SSW
B6	USGS40000255126	1/2 - 1 Mile East
C8	USGS40000255200	1/2 - 1 Mile NNE
C10	USGS40000255199	1/2 - 1 Mile NNE
D12	USGS40000255150	1/2 - 1 Mile East
E15	USGS40000255192	1/2 - 1 Mile NE
F16	USGS40000255185	1/2 - 1 Mile ENE
G19	USGS40000255133	1/2 - 1 Mile East
F22	USGS40000255189	1/2 - 1 Mile ENE
H23	USGS40000255221	1/2 - 1 Mile NNE
I26	USGS40000255223	1/2 - 1 Mile NNW
F27	USGS40000255198	1/2 - 1 Mile NE
J31	USGS40000255142	1/2 - 1 Mile East
J33	USGS40000255151	1/2 - 1 Mile East
K35	USGS40000255124	1/2 - 1 Mile East
L36	USGS40000255235	1/2 - 1 Mile North
M38	USGS40000255178	1/2 - 1 Mile ENE
N41	USGS40000255206	1/2 - 1 Mile NE
L42	USGS40000255245	1/2 - 1 Mile North
N44	USGS40000255211	1/2 - 1 Mile NE
O47	USGS40000255246	1/2 - 1 Mile NNW
P48	USGS40000255251	1/2 - 1 Mile North
Q50	USGS40000255252	1/2 - 1 Mile North
Q53	USGS40000255256	1/2 - 1 Mile North
R54	USGS40000255226	1/2 - 1 Mile NE
S56	USGS40000255262	1/2 - 1 Mile NNE
R59	USGS40000255230	1/2 - 1 Mile NE
T60	USGS40000255220	1/2 - 1 Mile NE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	GA1270027	1/4 - 1/2 Mile South
29	GA1270058	1/2 - 1 Mile ENE

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

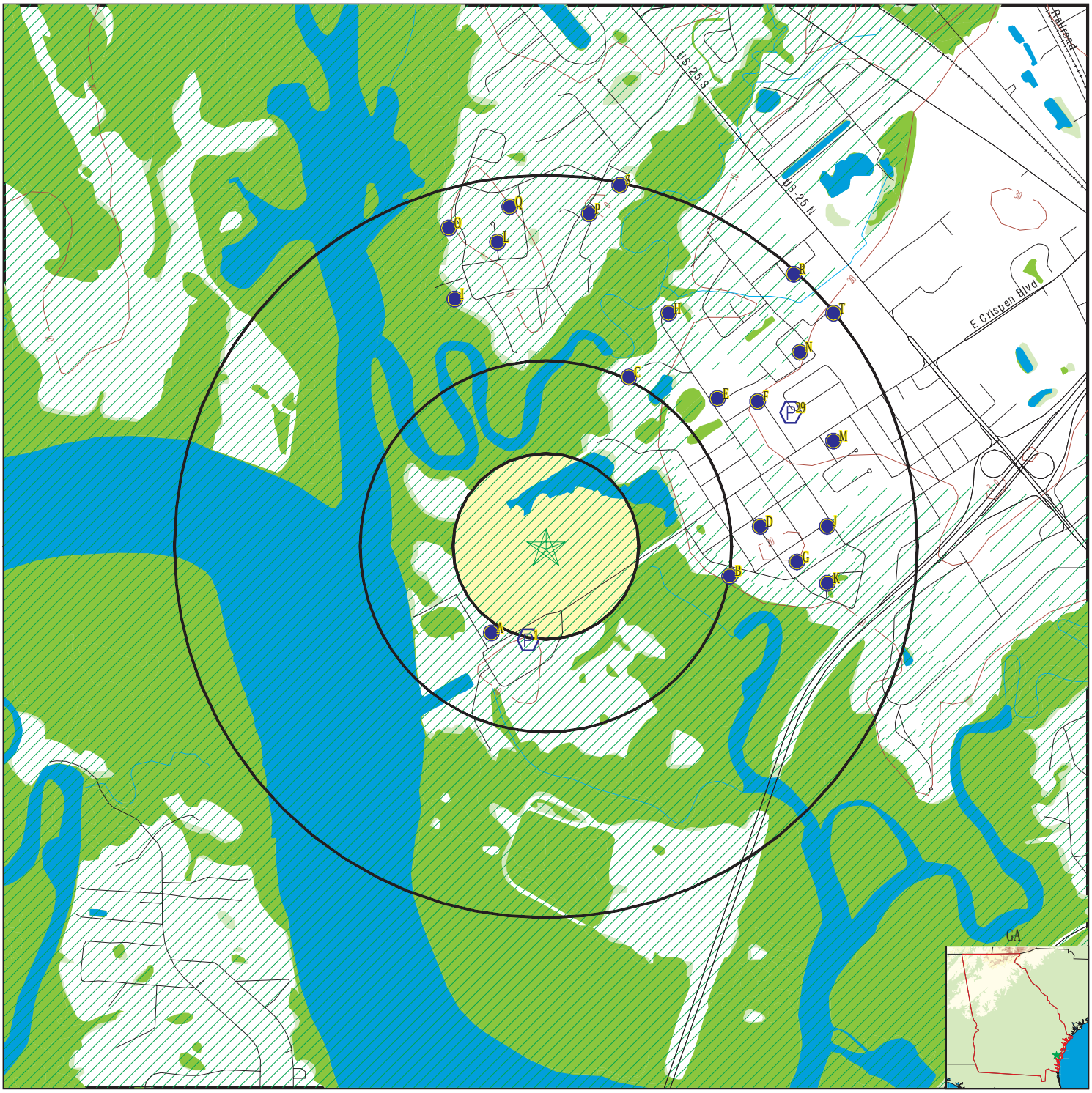
MAP ID	WELL ID	LOCATION FROM TP

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A2	0000005276	1/4 - 1/2 Mile SSW
A3	0000005277	1/4 - 1/2 Mile SSW
A4	0000005278	1/4 - 1/2 Mile SSW
B7	0000005287	1/2 - 1 Mile East
C9	0000005325	1/2 - 1 Mile NNE
C11	0000005324	1/2 - 1 Mile NNE
D13	0000005297	1/2 - 1 Mile East
E14	0000005320	1/2 - 1 Mile NE
F17	0000005317	1/2 - 1 Mile ENE
G18	0000005289	1/2 - 1 Mile East
F20	0000005318	1/2 - 1 Mile ENE
F21	0000005319	1/2 - 1 Mile ENE
I24	0000005339	1/2 - 1 Mile NNW
H25	0000005338	1/2 - 1 Mile NNE
F28	0000005323	1/2 - 1 Mile NE
J30	0000005292	1/2 - 1 Mile East
J32	0000005298	1/2 - 1 Mile East
K34	0000005286	1/2 - 1 Mile East
L37	0000005350	1/2 - 1 Mile North
M39	0000005313	1/2 - 1 Mile ENE
N40	0000005329	1/2 - 1 Mile NE
L43	0000005360	1/2 - 1 Mile North
N45	0000005334	1/2 - 1 Mile NE
O46	0000005361	1/2 - 1 Mile NNW
P49	0000005365	1/2 - 1 Mile North
Q51	0000005366	1/2 - 1 Mile North
Q52	0000005367	1/2 - 1 Mile North
R55	0000005340	1/2 - 1 Mile NE
R57	0000005344	1/2 - 1 Mile NE
S58	0000005372	1/2 - 1 Mile NNE
T61	0000005337	1/2 - 1 Mile NE

PHYSICAL SETTING SOURCE MAP - 7195410.1s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- Wildlife Areas

SITE NAME:	Plant Mcmanus	CLIENT:	ARCADIS U.S., Inc.
ADDRESS:	1 Crispen Island Drive Brunswick GA 31523	CONTACT:	Becky Steever
LAT/LONG:	31.217773 / 81.544019	INQUIRY #:	7195410.1s
		DATE:	December 05, 2022 1:32 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

1
South
1/4 - 1/2 Mile
Higher | **FRDS PWS** | **GA1270027**

Epa region:	04	State:	GA
Pwsid:	GA1270027	Pwsname:	GEORGIA POWER-PLANT MCMANUS
Cityserved:	Not Reported	Stateserved:	GA
Zipserved:	Not Reported	Fipscounty:	13127
Status:	Active	Retpopsrvd:	40
Pwssvcconn:	16	Psource longname:	Groundwater
Pwstype:	NTNCWS	Owner:	Private
Contact:	BLALOCK, TANYA D.	Contactorgname:	BLALOCK, TANYA D.
Contactphone:	404-506-7026	Contactaddress1:	241 RALPH MCGILL BLVD.
Contactaddress2:	BIN 10221	Contactcity:	ATLANTA
Contactstate:	GA	Contactzip:	30308-3374
Pwsactivitycode:	A		

Pwsid:	GA1270027	Facid:	1067
Facname:	WELL #1 PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	disinfection
Trtprocess:	hypochlorination, post	Factypecode:	TP

PWS ID:	GA1270027	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	PWS name:	GEORGIA POWER-PLANT MCMANUS
PWS type code:	NTNC	Retail population served:	40
Contact:	HOWELL, DANNY	Contact address:	ONE CRISPEN ISLAND
Contact address:	BRUNSWICK	Contact city:	GA
Contact state:	31	Contact zip:	912-261-32
Contact telephone:	Not Reported		

PWS ID:	GA1270027	Activity status:	Active
Date system activated:	Not Reported	Date system deactivated:	Not Reported
Retail population:	00000046	System name:	GEORGIA POWER-PLANT MCMANUS
System address:	GEORGIA POWER PLANT MCMANUS		
System address:	ONE CRISPEN ISLAND	System city:	BRUNSWICK
System state:	GA	System zip:	31520

Population served:	Under 101 Persons	Treatment:	Treated

Latitude:	311250	Longitude:	0813242

Violation id:	10204	Orig code:	S
State:	GA	Violation Year:	1994
Contamination code:	5000	Contamination Name:	Lead and Copper Rule
Violation code:	51	Violation name:	Initial Tap Sampling for Pb and Cu
Rule code:	350	Rule name:	LCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	01/01/1994
Cmp edt:	Not Reported		

Violation id:	10307	Orig code:	S
State:	GA	Violation Year:	2006
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2006

Cmp edt: 09/30/2006

Violation ID: 10204 Orig Code: S
Enforcemnt FY: 2001 Enforcement Action: 12/08/2000
Enforcement Detail: St Compliance achieved Enforcement Category: Resolving

Violation ID: 10204 Orig Code: S
Enforcemnt FY: 2001 Enforcement Action: 12/08/2000
Enforcement Detail: St Compliance achieved Enforcement Category: Resolving

Violation ID: 10307 Orig Code: S
Enforcemnt FY: 2007 Enforcement Action: 10/18/2006
Enforcement Detail: St Public Notif requested Enforcement Category: Informal

Violation ID: 10307 Orig Code: S
Enforcemnt FY: 2007 Enforcement Action: 11/28/2006
Enforcement Detail: St Public Notif received Enforcement Category: Informal

Violation ID: 10307 Orig Code: S
Enforcemnt FY: 2007 Enforcement Action: 10/18/2006
Enforcement Detail: St Violation/Reminder Notice
Enforcement Category: Informal

PWS name: GEORGIA POWER-PLANT MCMANUS
Population served: 40 PWS type code: NTNC
Violation ID: 10204 Contaminant: LEAD & COPPER RULE
Violation type: Initial Tap Sampling for Pb and Cu
Compliance start date: 1/1/1994 0:00:00 Compliance end date: 12/8/2000 0:00:00
Enforcement date: 12/8/2000 0:00:00 Enforcement action: State Compliance Achieved
Violation measurement: Not Reported

PWS name: GEORGIA POWER-PLANT MCMANUS
Population served: 40 PWS type code: NTNC
Violation ID: 10204 Contaminant: LEAD & COPPER RULE
Violation type: Initial Tap Sampling for Pb and Cu
Compliance start date: 1/1/1994 0:00:00 Compliance end date: 12/8/2000 0:00:00
Enforcement date: 2/3/1999 0:00:00 Enforcement action: State Intentional no-action
Violation measurement: Not Reported

PWS name: GEORGIA POWER-PLANT MCMANUS
Population served: 40 PWS type code: NTNC
Violation ID: 10307 Contaminant: COLIFORM (TCR)
Violation type: Monitoring, Routine Major (TCR)
Compliance start date: 7/1/2006 0:00:00 Compliance end date: 9/30/2006 0:00:00
Enforcement date: 10/18/2006 0:00:00 Enforcement action: State Violation/Reminder Notice
Violation measurement: Not Reported

PWS name: GEORGIA POWER-PLANT MCMANUS
Population served: 40 PWS type code: NTNC
Violation ID: 10307 Contaminant: COLIFORM (TCR)
Violation type: Monitoring, Routine Major (TCR)
Compliance start date: 7/1/2006 0:00:00 Compliance end date: 9/30/2006 0:00:00
Enforcement date: 10/18/2006 0:00:00 Enforcement action: State Public Notif Requested
Violation measurement: Not Reported

PWS name: GEORGIA POWER-PLANT MCMANUS
Population served: 40 PWS type code: NTNC
Violation ID: 10307 Contaminant: COLIFORM (TCR)
Violation type: Monitoring, Routine Major (TCR)
Compliance start date: 7/1/2006 0:00:00 Compliance end date: 9/30/2006 0:00:00
Enforcement date: 11/28/2006 0:00:00 Enforcement action: State Public Notif Received
Violation measurement: Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

	Database	EDR ID Number
A2 **SSW** **1/4 - 1/2 Mile** **Higher**	**GA WELLS**	**0000005276**

County code:	127	Well num:	33H051
Remarks:	MCMANUS GA POWER	Lat:	311251
Lon:	0813248	Latlon datum:	NAD27
Alt:	10.00	Alt datum:	NGVD29
Depth:	983	Depth to casing:	117.00
Casing dia:	12.00	Casing matl:	S
Depth to top:	600.00	Depth to bot:	983.00
Opening type:	X	Constr date:	19510312
Discharge:	Not Reported	Prim use:	N
Aquifer code:	120FLRDU	Edr id:	0000005276

	Database	EDR ID Number
A3 **SSW** **1/4 - 1/2 Mile** **Higher**	**GA WELLS**	**0000005277**

County code:	127	Well num:	33H051
Remarks:	MCMANUS GA POWER	Lat:	311251
Lon:	0813248	Latlon datum:	NAD27
Alt:	10.00	Alt datum:	NGVD29
Depth:	983	Depth to casing:	464.00
Casing dia:	8.00	Casing matl:	S
Depth to top:	Not Reported	Depth to bot:	Not Reported
Opening type:	Not Reported	Constr date:	Not Reported
Discharge:	Not Reported	Prim use:	N
Aquifer code:	120FLRDU	Edr id:	0000005277

	Database	EDR ID Number
A4 **SSW** **1/4 - 1/2 Mile** **Higher**	**GA WELLS**	**0000005278**

County code:	127	Well num:	33H051
Remarks:	MCMANUS GA POWER	Lat:	311251
Lon:	0813248	Latlon datum:	NAD27
Alt:	10.00	Alt datum:	NGVD29
Depth:	983	Depth to casing:	600.00
Casing dia:	6.00	Casing matl:	S
Depth to top:	Not Reported	Depth to bot:	Not Reported
Opening type:	Not Reported	Constr date:	Not Reported
Discharge:	Not Reported	Prim use:	N
Aquifer code:	120FLRDU	Edr id:	0000005278

	Database	EDR ID Number
A5 **SSW** **1/4 - 1/2 Mile** **Higher**	**FED USGS**	**USGS40000255109**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	33H051	Type:	Well
Description:	MCMANUS GA POWER	HUC:	03070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported

Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Floridan aquifer system	Formation Type:	Upper Floridan Aquifer
Aquifer Type:	Not Reported	Construction Date:	19510312
Well Depth:	983	Well Depth Units:	ft
Well Hole Depth:	990	Well Hole Depth Units:	ft

B6
East
1/2 - 1 Mile
Higher

FED USGS **USGS40000255126**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	33H233	Type:	Well
Description:	RANDY MCDONALD	HUC:	03070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Surficial Aquifer
Aquifer Type:	Not Reported	Construction Date:	19910122
Well Depth:	200	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1991-05-15
Feet below surface:	5.70	Feet to sea level:	Not Reported
Note:	Not Reported		

B7
East
1/2 - 1 Mile
Higher

GA WELLS **0000005287**

County code:	127	Well num:	33H233
Remarks:	RANDY MCDONALD	Lat:	311259
Lon:	0813209	Latlon datum:	NAD27
Alt:	10	Alt datum:	NGVD29
Depth:	200	Depth to casing:	152
Casing dia:	4	Casing matl:	P
Depth to top:	152	Depth to bot:	200
Opening type:	X	Constr date:	19910122
Discharge:	Not Reported	Prim use:	H
Aquifer code:	Not Reported	Edr id:	0000005287

C8
NNE
1/2 - 1 Mile
Higher

FED USGS **USGS40000255200**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	33H199	Type:	Well
Description:	SAPP, WOODROW SR.	HUC:	Not Reported
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Other aquifers	Formation Type:	Miocene Series
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	9	Level reading date:	1983-11-09
Feet below surface:	2.05	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	1983-03-18	Feet below surface:	1.20
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1983-02-24	Feet below surface:	1.60
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1983-01-25	Feet below surface:	3.05
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-11-16	Feet below surface:	3.13
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-08-19	Feet below surface:	3.29
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-07-19	Feet below surface:	3.44
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-06-22	Feet below surface:	3.73
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-05-21	Feet below surface:	4.33
Feet to sea level:	Not Reported	Note:	Not Reported

C9
NNE
1/2 - 1 Mile
Higher

GA WELLS **0000005325**

County code:	127	Well num:	33H199
Remarks:	SAPP, WOODROW SR.	Lat:	311327
Lon:	0813226	Latlon datum:	NAD27
Alt:	10.00	Alt datum:	NGVD29
Depth:	Not Reported	Depth to casing:	Not Reported
Casing dia:	Not Reported	Casing matl:	Not Reported
Depth to top:	Not Reported	Depth to bot:	Not Reported
Opening type:	Not Reported	Constr date:	Not Reported
Discharge:	Not Reported	Prim use:	Not Reported
Aquifer code:	122MOCN	Edr id:	0000005325

C10
NNE
1/2 - 1 Mile
Higher

FED USGS **USGS40000255199**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	33H242	Type:	Well
Description:	BOBBY SAPP	HUC:	03070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Surficial Aquifer
Aquifer Type:	Not Reported	Construction Date:	19881103
Well Depth:	200	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1991-04-29
Feet below surface:	4.92	Feet to sea level:	Not Reported
Note:	Not Reported		

C11
NNE
1/2 - 1 Mile
Higher

GA WELLS **0000005324**

County code:	127	Well num:	33H242
Remarks:	BOBBY SAPP	Lat:	311327
Lon:	0813225	Latlon datum:	NAD27
Alt:	10	Alt datum:	NGVD29
Depth:	200	Depth to casing:	158
Casing dia:	4	Casing matl:	S
Depth to top:	158	Depth to bot:	200
Opening type:	X	Constr date:	19881103
Discharge:	Not Reported	Prim use:	H
Aquifer code:	Not Reported	Edr id:	0000005324

D12
East
1/2 - 1 Mile
Higher

FED USGS **USGS40000255150**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	33H279	Type:	Well
Description:	JOYCE GOOGE	HUC:	03070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Surficial Aquifer
Aquifer Type:	Not Reported	Construction Date:	19890909
Well Depth:	200	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1991-04-17
Feet below surface:	12.90	Feet to sea level:	Not Reported
Note:	Not Reported		

D13
East
1/2 - 1 Mile
Higher

GA WELLS **0000005297**

County code:	127	Well num:	33H279
Remarks:	JOYCE GOOGE	Lat:	311306
Lon:	0813204	Latlon datum:	NAD27
Alt:	17.0	Alt datum:	NGVD29
Depth:	200	Depth to casing:	166
Casing dia:	4.0	Casing matl:	G
Depth to top:	166	Depth to bot:	200
Opening type:	X	Constr date:	19890909
Discharge:	Not Reported	Prim use:	H
Aquifer code:	Not Reported	Edr id:	0000005297

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

E14
NE
1/2 - 1 Mile
Higher

GA WELLS **0000005320**

County code:	127	Well num:	33H281
Remarks:	STAN BOATRIGHT	Lat:	311324
Lon:	0813211	Latlon datum:	NAD27
Alt:	20	Alt datum:	NGVD29
Depth:	200	Depth to casing:	156
Casing dia:	4	Casing matl:	S
Depth to top:	156	Depth to bot:	200
Opening type:	X	Constr date:	19890805
Discharge:	Not Reported	Prim use:	H
Aquifer code:	Not Reported	Edr id:	0000005320

E15
NE
1/2 - 1 Mile
Higher

FED USGS **USGS40000255192**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	33H281	Type:	Well
Description:	STAN BOATRIGHT	HUC:	03070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19890805
Well Depth:	200	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1989-08-05
Feet below surface:	11	Feet to sea level:	Not Reported
Note:	Not Reported		

F16
ENE
1/2 - 1 Mile
Higher

FED USGS **USGS40000255185**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	33H315	Type:	Well
Description:	A. R. SADTLER	HUC:	03070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Surficial Aquifer
Aquifer Type:	Not Reported	Construction Date:	19900711
Well Depth:	200	Well Depth Units:	ft
Well Hole Depth:	200	Well Hole Depth Units:	ft

Ground water levels,Number of Measurements:	1	Level reading date:	1991-04-11
Feet below surface:	13.69	Feet to sea level:	Not Reported
Note:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

F17
ENE
1/2 - 1 Mile
Higher

GA WELLS **0000005317**

County code:	127	Well num:	33H315
Remarks:	A. R. SADTLER	Lat:	311322
Lon:	0813206	Latlon datum:	NAD27
Alt:	20.0	Alt datum:	NGVD29
Depth:	200	Depth to casing:	157
Casing dia:	4.5	Casing matl:	P
Depth to top:	157	Depth to bot:	200
Opening type:	X	Constr date:	19900711
Discharge:	Not Reported	Prim use:	H
Aquifer code:	Not Reported	Edr id:	0000005317

G18
East
1/2 - 1 Mile
Higher

GA WELLS **0000005289**

County code:	127	Well num:	33H253
Remarks:	RANDALL HOWELL	Lat:	311301
Lon:	0813158	Latlon datum:	NAD27
Alt:	20.0	Alt datum:	NGVD29
Depth:	180	Depth to casing:	151
Casing dia:	4.5	Casing matl:	P
Depth to top:	151	Depth to bot:	180
Opening type:	X	Constr date:	19900726
Discharge:	Not Reported	Prim use:	H
Aquifer code:	Not Reported	Edr id:	0000005289

G19
East
1/2 - 1 Mile
Higher

FED USGS **USGS40000255133**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	33H253	Type:	Well
Description:	RANDALL HOWELL	HUC:	03070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Surficial Aquifer
Aquifer Type:	Not Reported	Construction Date:	19900726
Well Depth:	180	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1991-04-11
Feet below surface:	15.37	Feet to sea level:	Not Reported
Note:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

F20
ENE
1/2 - 1 Mile
Higher

GA WELLS **0000005318**

County code:	127	Well num:	33H132
Remarks:	OAK BLUFF SUBDIVISON	Lat:	311323
Lon:	0813203	Latlon datum:	NAD27
Alt:	20.96	Alt datum:	NGVD29
Depth:	736	Depth to casing:	100.00
Casing dia:	4.00	Casing matl:	Not Reported
Depth to top:	499.00	Depth to bot:	736.00
Opening type:	X	Constr date:	19631001
Discharge:	Not Reported	Prim use:	P
Aquifer code:	Not Reported	Edr id:	0000005318

F21
ENE
1/2 - 1 Mile
Higher

GA WELLS **0000005319**

County code:	127	Well num:	33H132
Remarks:	OAK BLUFF SUBDIVISON	Lat:	311323
Lon:	0813203	Latlon datum:	NAD27
Alt:	20.96	Alt datum:	NGVD29
Depth:	736	Depth to casing:	499.00
Casing dia:	3.00	Casing matl:	Not Reported
Depth to top:	Not Reported	Depth to bot:	Not Reported
Opening type:	Not Reported	Constr date:	Not Reported
Discharge:	Not Reported	Prim use:	P
Aquifer code:	Not Reported	Edr id:	0000005319

F22
ENE
1/2 - 1 Mile
Higher

FED USGS **USGS40000255189**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	33H132	Type:	Well
Description:	OAK BLUFF SUBDIVISON	HUC:	03070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Floridan aquifer system	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19631001
Well Depth:	736	Well Depth Units:	ft
Well Hole Depth:	736	Well Hole Depth Units:	ft

H23
NNE
1/2 - 1 Mile
Higher

FED USGS **USGS40000255221**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	33H318	Type:	Well
Description:	GARY LANE	HUC:	03070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported

Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	1988
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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I24
NNW
1/2 - 1 Mile
Higher

GA WELLS **0000005339**

County code:	127	Well num:	33H294
Remarks:	MICHAEL DOWDY	Lat:	311338
Lon:	0813254	Latlon datum:	NAD27
Alt:	5	Alt datum:	NGVD29
Depth:	160	Depth to casing:	120
Casing dia:	4.5	Casing matl:	P
Depth to top:	120	Depth to bot:	160
Opening type:	X	Constr date:	19900509
Discharge:	Not Reported	Prim use:	H
Aquifer code:	Not Reported	Edr id:	0000005339

H25
NNE
1/2 - 1 Mile
Higher

GA WELLS **0000005338**

County code:	127	Well num:	33H318
Remarks:	GARY LANE	Lat:	311336
Lon:	0813219	Latlon datum:	NAD27
Alt:	10	Alt datum:	NGVD29
Depth:	Not Reported	Depth to casing:	Not Reported
Casing dia:	4	Casing matl:	S
Depth to top:	Not Reported	Depth to bot:	Not Reported
Opening type:	Not Reported	Constr date:	1988
Discharge:	Not Reported	Prim use:	H
Aquifer code:	Not Reported	Edr id:	0000005338

I26
NNW
1/2 - 1 Mile
Higher

FED USGS **USGS40000255223**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	33H294	Type:	Well
Description:	MICHAEL DOWDY	HUC:	03070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Surficial Aquifer
Aquifer Type:	Not Reported	Construction Date:	19900509
Well Depth:	160	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1991-04-09
Feet below surface:	-.46	Feet to sea level:	Not Reported
Note:	Not Reported		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

F27
NE
1/2 - 1 Mile
Higher | **FED USGS** | **USGS40000255198**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	33H198	Type:	Well
Description:	H. O. NAIL	HUC:	03070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Surficial Aquifer
Aquifer Type:	Not Reported	Construction Date:	19820401
Well Depth:	180	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	14	Level reading date:	1990-05-19
Feet below surface:	17.10	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	1988-05-23	Feet below surface:	15.10
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1987-10-14	Feet below surface:	13.67
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1985-05-13	Feet below surface:	13.00
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1983-11-09	Feet below surface:	12.25
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1983-03-17	Feet below surface:	10.60
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1983-02-24	Feet below surface:	10.85
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1983-01-25	Feet below surface:	12.59
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-11-16	Feet below surface:	12.35
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-08-19	Feet below surface:	12.33
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-07-19	Feet below surface:	12.63
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-06-22	Feet below surface:	13.15
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-05-19	Feet below surface:	14.18
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-05-18	Feet below surface:	13
Feet to sea level:	Not Reported	Note:	Not Reported

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

F28
NE
1/2 - 1 Mile
Higher

GA WELLS **0000005323**

County code:	127	Well num:	33H198
Remarks:	H. O. NAIL	Lat:	311326
Lon:	0813205	Latlon datum:	NAD27
Alt:	20	Alt datum:	NGVD29
Depth:	180	Depth to casing:	152
Casing dia:	4	Casing matl:	Not Reported
Depth to top:	152	Depth to bot:	180
Opening type:	X	Constr date:	19820401
Discharge:	Not Reported	Prim use:	H
Aquifer code:	122MOCN	Edr id:	0000005323

29
ENE
1/2 - 1 Mile
Higher

FRDS PWS **GA1270058**

Epa region:	04	State:	GA
Pwsid:	GA1270058	Pwsname:	OAK ACRES SUBDIVISION
Cityserved:	Not Reported	Stateserved:	GA
Zipserved:	Not Reported	Fipscounty:	13127
Status:	Active	Retpopsrvd:	36
Pwssvcconn:	14	Psource longname:	Groundwater
Pwstype:	CWS	Owner:	Private
Contact:	SAPP, JR, WOODROW	Contactorgname:	SAPP, JR, WOODROW
Contactphone:	912-265-2603	Contactaddress1:	4774 NEW JESUP HIGHWAY
Contactaddress2:	Not Reported	Contactcity:	BRUNSWICK
Contactstate:	GA	Contactzip:	31520
Pwsactivitycode:	A		

Pwsid:	GA1270058	Facid:	1080
Facname:	WELL #1 PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	disinfection
Trtprocess:	hypochlorination, post	Factypecode:	TP

PWS ID:	GA1270058	PWS name:	OAK ACRES SUBDIVISION
Address:	3 OAK ACRES ROAD	Care of:	OAK ACRES SUBDIVISION
City:	BRUNSWICK	State:	GA
Zip:	31523	Owner:	OAK ACRES SUBDIVISION
Source code:	Ground water	Population:	38

PWS ID:	GA1270058	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	County:	GLYNN
Source:	Ground water	Treatment Objective:	DISINFECTION
Process:	HYPOCHLORINATION, POST	Population:	38

PWS ID:	GA1270058	Activity status:	Active
Date system activated:	Not Reported	Date system deactivated:	Not Reported
Retail population:	00000050	System name:	OAK ACRES SUBDIVISION
System address:	OAK ACRES S/D	System address:	11 OAK ACRES
System city:	BRUNSWICK	System state:	GA
System zip:	31520		

Population served:	Under 101 Persons	Treatment:	Treated
Latitude:	311322	Longitude:	0813159
State:	GA	Latitude degrees:	31
Latitude minutes:	13	Latitude seconds:	22.0000
Longitude degrees:	81	Longitude minutes:	31
Longitude seconds:	59.0000		

J30
East
1/2 - 1 Mile
Higher

GA WELLS **0000005292**

County code:	127	Well num:	33H197
Remarks:	JOE NELSON (SHALLOW)	Lat:	311305
Lon:	0813153	Latlon datum:	NAD27
Alt:	20	Alt datum:	NGVD29
Depth:	260	Depth to casing:	240
Casing dia:	2	Casing matl:	Not Reported
Depth to top:	240	Depth to bot:	260
Opening type:	X	Constr date:	1975
Discharge:	Not Reported	Prim use:	H
Aquifer code:	122MOCN	Edr id:	0000005292

J31
East
1/2 - 1 Mile
Higher

FED USGS **USGS40000255142**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	33H197	Type:	Well
Description:	JOE NELSON (SHALLOW)	HUC:	03070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Surficial Aquifer
Aquifer Type:	Not Reported	Construction Date:	1975
Well Depth:	260	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	9	Level reading date:	1983-11-09
Feet below surface:	9.65	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	1983-03-18	Feet below surface:	8.15
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1983-02-24	Feet below surface:	8.25
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1983-01-25	Feet below surface:	9.78
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-11-16	Feet below surface:	9.55
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-08-19	Feet below surface:	10.30
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1982-07-19	Feet below surface:	10.70
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-06-22	Feet below surface:	11.02
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-05-24	Feet below surface:	11.45
Feet to sea level:	Not Reported	Note:	Not Reported

J32
East
1/2 - 1 Mile
Higher

GA WELLS **0000005298**

County code:	127	Well num:	33H254
Remarks:	TERRY RAPE	Lat:	311307
Lon:	0813153	Latlon datum:	NAD27
Alt:	20.0	Alt datum:	NGVD29
Depth:	220	Depth to casing:	156
Casing dia:	4.5	Casing matl:	P
Depth to top:	156	Depth to bot:	220
Opening type:	X	Constr date:	19900720
Discharge:	Not Reported	Prim use:	H
Aquifer code:	Not Reported	Edr id:	0000005298

J33
East
1/2 - 1 Mile
Higher

FED USGS **USGS40000255151**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	33H254	Type:	Well
Description:	TERRY RAPE	HUC:	03070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Surficial Aquifer
Aquifer Type:	Not Reported	Construction Date:	19900720
Well Depth:	220	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1990-07-20
Feet below surface:	18	Feet to sea level:	Not Reported
Note:	Not Reported		

K34
East
1/2 - 1 Mile
Higher

GA WELLS **0000005286**

County code:	127	Well num:	33H280
Remarks:	BOB BOWERS	Lat:	311258
Lon:	0813153	Latlon datum:	NAD27
Alt:	17.5	Alt datum:	NGVD29
Depth:	200	Depth to casing:	153
Casing dia:	4	Casing matl:	S
Depth to top:	153	Depth to bot:	200
Opening type:	X	Constr date:	19890504
Discharge:	Not Reported	Prim use:	H

Aquifer code:	Not Reported	Edr id:	0000005286

K35
East
1/2 - 1 Mile
Higher

FED USGS **USGS40000255124**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	33H280	Type:	Well
Description:	BOB BOWERS	HUC:	03070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19890504
Well Depth:	200	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1989-05-04
Feet below surface:	10	Feet to sea level:	Not Reported
Note:	Not Reported		

L36
North
1/2 - 1 Mile
Higher

FED USGS **USGS40000255235**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	33H298	Type:	Well
Description:	JOHN RINNIER	HUC:	03070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Surficial Aquifer
Aquifer Type:	Not Reported	Construction Date:	19900404
Well Depth:	160	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1991-04-10
Feet below surface:	1.41	Feet to sea level:	Not Reported
Note:	Not Reported		

L37
North
1/2 - 1 Mile
Higher

GA WELLS **0000005350**

County code:	127	Well num:	33H298
Remarks:	JOHN RINNIER	Lat:	311344
Lon:	0813247	Latlon datum:	NAD27
Alt:	11	Alt datum:	NGVD29
Depth:	160	Depth to casing:	121
Casing dia:	4.5	Casing matl:	P
Depth to top:	121	Depth to bot:	160
Opening type:	X	Constr date:	19900404
Discharge:	Not Reported	Prim use:	H
Aquifer code:	Not Reported	Edr id:	0000005350

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

M38
ENE
1/2 - 1 Mile
Higher

FED USGS **USGS40000255178**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	33H313	Type:	Well
Description:	PHILLIP SIMPSON	HUC:	03070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Surficial Aquifer
Aquifer Type:	Not Reported	Construction Date:	19900715
Well Depth:	160	Well Depth Units:	ft
Well Hole Depth:	160	Well Hole Depth Units:	ft

Ground water levels,Number of Measurements:	1	Level reading date:	1991-04-11
Feet below surface:	15.50	Feet to sea level:	Not Reported
Note:	Not Reported		

M39
ENE
1/2 - 1 Mile
Higher

GA WELLS **0000005313**

County code:	127	Well num:	33H313
Remarks:	PHILLIP SIMPSON	Lat:	311318
Lon:	0813152	Latlon datum:	NAD27
Alt:	24.0	Alt datum:	NGVD29
Depth:	160	Depth to casing:	120
Casing dia:	4.5	Casing matl:	P
Depth to top:	120	Depth to bot:	160
Opening type:	X	Constr date:	19900715
Discharge:	Not Reported	Prim use:	H
Aquifer code:	Not Reported	Edr id:	0000005313

N40
NE
1/2 - 1 Mile
Higher

GA WELLS **0000005329**

County code:	127	Well num:	33H240
Remarks:	J H McCLAIN	Lat:	311330
Lon:	0813158	Latlon datum:	NAD27
Alt:	19	Alt datum:	NGVD29
Depth:	195	Depth to casing:	160
Casing dia:	4	Casing matl:	S
Depth to top:	160	Depth to bot:	195
Opening type:	X	Constr date:	19880122
Discharge:	Not Reported	Prim use:	H
Aquifer code:	Not Reported	Edr id:	0000005329

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

N41
NE
1/2 - 1 Mile
Higher

FED USGS **USGS40000255206**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	33H240	Type:	Well
Description:	J H McCLAIN	HUC:	03070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Surficial Aquifer
Aquifer Type:	Not Reported	Construction Date:	19880122
Well Depth:	195	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1991-04-29
Feet below surface:	13.78	Feet to sea level:	Not Reported
Note:	Not Reported		

L42
North
1/2 - 1 Mile
Higher

FED USGS **USGS40000255245**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	33H299	Type:	Well
Description:	WILLIAM WIGGINS	HUC:	03070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Surficial Aquifer
Aquifer Type:	Not Reported	Construction Date:	19910204
Well Depth:	160	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1991-02-04
Feet below surface:	4	Feet to sea level:	Not Reported
Note:	Not Reported		

L43
North
1/2 - 1 Mile
Higher

GA WELLS **0000005360**

County code:	127	Well num:	33H299
Remarks:	WILLIAM WIGGINS	Lat:	311348
Lon:	0813247	Latlon datum:	NAD27
Alt:	12.5	Alt datum:	NGVD29
Depth:	160	Depth to casing:	115
Casing dia:	4	Casing matl:	G
Depth to top:	115	Depth to bot:	160
Opening type:	X	Constr date:	19910204
Discharge:	Not Reported	Prim use:	H
Aquifer code:	Not Reported	Edr id:	0000005360

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

N44
NE
1/2 - 1 Mile
Higher

FED USGS **USGS40000255211**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	33H258	Type:	Well
Description:	R L NEWBORN	HUC:	03070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Surficial Aquifer
Aquifer Type:	Not Reported	Construction Date:	19900525
Well Depth:	180	Well Depth Units:	ft
Well Hole Depth:	180	Well Hole Depth Units:	ft

Ground water levels,Number of Measurements:	1	Level reading date:	1990-05-25
Feet below surface:	12.0	Feet to sea level:	Not Reported
Note:	Not Reported		

N45
NE
1/2 - 1 Mile
Higher

GA WELLS **0000005334**

County code:	127	Well num:	33H258
Remarks:	R L NEWBORN	Lat:	311331
Lon:	0813157	Latlon datum:	NAD27
Alt:	19.0	Alt datum:	NGVD29
Depth:	180	Depth to casing:	153
Casing dia:	4.5	Casing matl:	P
Depth to top:	153	Depth to bot:	180
Opening type:	X	Constr date:	19900525
Discharge:	Not Reported	Prim use:	H
Aquifer code:	Not Reported	Edr id:	0000005334

O46
NNW
1/2 - 1 Mile
Higher

GA WELLS **0000005361**

County code:	127	Well num:	33H275
Remarks:	CURTIS GOWEN	Lat:	311348
Lon:	0813255	Latlon datum:	NAD27
Alt:	7.5	Alt datum:	NGVD29
Depth:	160	Depth to casing:	118
Casing dia:	4	Casing matl:	G
Depth to top:	118	Depth to bot:	160
Opening type:	X	Constr date:	19891027
Discharge:	Not Reported	Prim use:	H
Aquifer code:	Not Reported	Edr id:	0000005361

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

O47
NNW
1/2 - 1 Mile
Higher

FED USGS **USGS40000255246**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	33H275	Type:	Well
Description:	CURTIS GOWEN	HUC:	03070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Surficial Aquifer
Aquifer Type:	Not Reported	Construction Date:	19891027
Well Depth:	160	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1991-04-17
Feet below surface:	-.12	Feet to sea level:	Not Reported
Note:	Not Reported		

P48
North
1/2 - 1 Mile
Higher

FED USGS **USGS40000255251**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	33H292	Type:	Well
Description:	JOHN MARTIN	HUC:	03070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Surficial Aquifer
Aquifer Type:	Not Reported	Construction Date:	19900530
Well Depth:	160	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1990-05-30
Feet below surface:	7	Feet to sea level:	Not Reported
Note:	Not Reported		

P49
North
1/2 - 1 Mile
Higher

GA WELLS **0000005365**

County code:	127	Well num:	33H292
Remarks:	JOHN MARTIN	Lat:	311350
Lon:	0813232	Latlon datum:	NAD27
Alt:	12.5	Alt datum:	NGVD29
Depth:	160	Depth to casing:	118
Casing dia:	4.5	Casing matl:	P
Depth to top:	118	Depth to bot:	160
Opening type:	X	Constr date:	19900530
Discharge:	Not Reported	Prim use:	H
Aquifer code:	Not Reported	Edr id:	0000005365

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

Q50
North
1/2 - 1 Mile
Higher

FED USGS **USGS40000255252**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	33H300	Type:	Well
Description:	JOHN WITTINGSLOW	HUC:	03070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Surficial Aquifer
Aquifer Type:	Not Reported	Construction Date:	19900321
Well Depth:	160	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1991-04-10
Feet below surface:	5.48	Feet to sea level:	Not Reported
Note:	Not Reported		

Q51
North
1/2 - 1 Mile
Higher

GA WELLS **0000005366**

County code:	127	Well num:	33H300
Remarks:	JOHN WITTINGSLOW	Lat:	311350
Lon:	0813247	Latlon datum:	NAD27
Alt:	12.5	Alt datum:	NGVD29
Depth:	160	Depth to casing:	120
Casing dia:	4.5	Casing matl:	P
Depth to top:	120	Depth to bot:	160
Opening type:	X	Constr date:	19900321
Discharge:	Not Reported	Prim use:	H
Aquifer code:	Not Reported	Edr id:	0000005366

Q52
North
1/2 - 1 Mile
Higher

GA WELLS **0000005367**

County code:	127	Well num:	33H302
Remarks:	JOHNNY DILLS	Lat:	311352
Lon:	0813243	Latlon datum:	NAD27
Alt:	12.5	Alt datum:	NGVD29
Depth:	150	Depth to casing:	118
Casing dia:	4	Casing matl:	G
Depth to top:	118	Depth to bot:	150
Opening type:	X	Constr date:	19900208
Discharge:	Not Reported	Prim use:	H
Aquifer code:	Not Reported	Edr id:	0000005367

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

Q53
North
1/2 - 1 Mile
Higher

FED USGS **USGS40000255256**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	33H302	Type:	Well
Description:	JOHNNY DILLS	HUC:	03070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Surficial Aquifer
Aquifer Type:	Not Reported	Construction Date:	19900208
Well Depth:	150	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	2	Level reading date:	2000-09-07
Feet below surface:	6.94	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	1991-04-10	Feet below surface:	4.02
Feet to sea level:	Not Reported	Note:	Not Reported

R54
NE
1/2 - 1 Mile
Higher

FED USGS **USGS40000255226**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	33H267	Type:	Well
Description:	GENE REYNOLDS	HUC:	03070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Surficial Aquifer
Aquifer Type:	Not Reported	Construction Date:	19890523
Well Depth:	165	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1991-04-16
Feet below surface:	10.65	Feet to sea level:	Not Reported
Note:	Not Reported		

R55
NE
1/2 - 1 Mile
Higher

GA WELLS **0000005340**

County code:	127	Well num:	33H267
Remarks:	GENE REYNOLDS	Lat:	311341
Lon:	0813158	Latlon datum:	NAD27
Alt:	17.5	Alt datum:	NGVD29
Depth:	165	Depth to casing:	125
Casing dia:	4.0	Casing matl:	G
Depth to top:	125	Depth to bot:	165
Opening type:	X	Constr date:	19890523
Discharge:	Not Reported	Prim use:	H
Aquifer code:	Not Reported	Edr id:	0000005340

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

S56
NNE **FED USGS** **USGS40000255262**
1/2 - 1 Mile
Higher

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	33H200	Type:	Well
Description:	SAPP, WOODROW JR.	HUC:	Not Reported
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Other aquifers	Formation Type:	Miocene Series
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	12	Level reading date:	1990-05-19
Feet below surface:	4.88	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	1988-05-23	Feet below surface:	3.79
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1987-10-14	Feet below surface:	2.41
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1983-11-09	Feet below surface:	0.90
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1983-03-17	Feet below surface:	-0.65
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1983-02-24	Feet below surface:	-0.35
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1983-01-25	Feet below surface:	0.89
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-11-16	Feet below surface:	1.17
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-08-17	Feet below surface:	1.30
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-07-19	Feet below surface:	1.69
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-06-22	Feet below surface:	1.86
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-05-19	Feet below surface:	3.05
Feet to sea level:	Not Reported	Note:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

R57
NE
1/2 - 1 Mile
Higher

GA WELLS **0000005344**

County code:	127	Well num:	33H259
Remarks:	JOHNNY SIMPSON	Lat:	311342
Lon:	0813159	Latlon datum:	NAD27
Alt:	17.6	Alt datum:	NGVD29
Depth:	170	Depth to casing:	125
Casing dia:	4.0	Casing matl:	G
Depth to top:	125	Depth to bot:	170
Opening type:	X	Constr date:	19890623
Discharge:	Not Reported	Prim use:	H
Aquifer code:	Not Reported	Edr id:	0000005344

S58
NNE
1/2 - 1 Mile
Higher

GA WELLS **0000005372**

County code:	127	Well num:	33H200
Remarks:	SAPP, WOODROW JR.	Lat:	311354
Lon:	0813227	Latlon datum:	NAD27
Alt:	10.00	Alt datum:	NGVD29
Depth:	Not Reported	Depth to casing:	Not Reported
Casing dia:	Not Reported	Casing matl:	Not Reported
Depth to top:	Not Reported	Depth to bot:	Not Reported
Opening type:	Not Reported	Constr date:	Not Reported
Discharge:	Not Reported	Prim use:	Not Reported
Aquifer code:	122MOCN	Edr id:	0000005372

R59
NE
1/2 - 1 Mile
Higher

FED USGS **USGS40000255230**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	33H259	Type:	Well
Description:	JOHNNY SIMPSON	HUC:	03070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Surficial Aquifer
Aquifer Type:	Not Reported	Construction Date:	19890623
Well Depth:	170	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1989-06-23
Feet below surface:	10	Feet to sea level:	Not Reported
Note:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

T60
NE
1/2 - 1 Mile
Higher

FED USGS **USGS40000255220**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	33H238	Type:	Well
Description:	HARVEY CROSBY	HUC:	03070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Surficial Aquifer
Aquifer Type:	Not Reported	Construction Date:	19880810
Well Depth:	180	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	2	Level reading date:	2000-09-07
Feet below surface:	17.36	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	1991-04-30	Feet below surface:	14.88
Feet to sea level:	Not Reported	Note:	Not Reported

T61
NE
1/2 - 1 Mile
Higher

GA WELLS **0000005337**

County code:	127	Well num:	33H238
Remarks:	HARVEY CROSBY	Lat:	311336
Lon:	0813152	Latlon datum:	NAD27
Alt:	24	Alt datum:	NGVD29
Depth:	180	Depth to casing:	132
Casing dia:	4	Casing matl:	S
Depth to top:	132	Depth to bot:	180
Opening type:	X	Constr date:	19880810
Discharge:	Not Reported	Prim use:	H
Aquifer code:	Not Reported	Edr id:	0000005337

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

Federal EPA Radon Zone for GLYNN County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for GLYNN COUNTY, GA

Number of sites tested: 5

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.260 pCi/L	100%	0%	0%
Living Area - 2nd Floor	0.400 pCi/L	100%	0%	0%
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Georgia GIS Clearinghouse
Telephone: 706-542-1581

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Georgia Public Supply Wells
Source: Georgia Department of Community Affairs
Telephone: 404-894-0127

USGS Georgia Water Wells
Source: USGS, Georgia District Office
Telephone: 770-903-9100

OTHER STATE DATABASE INFORMATION

DNR Managed Lands
Source: Department of Natural Resources
Telephone: 706-557-3032
This dataset provides 1:24,000-scale data depicting boundaries of land parcels making up the public lands managed by the Georgia Department of Natural Resources (GDNR). It includes polygon representations of State Parks, State Historic Parks, State Conservation Parks, State Historic Sites, Wildlife Management Areas, Public Fishing Areas, Fish Hatcheries, Natural Areas and other specially-designated areas. The data were collected and located by the Georgia Department of Natural Resources. Boundaries were digitized from survey plats or other information.

RADON

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STREET AND ADDRESS INFORMATION