

2023 Semiannual Groundwater Monitoring and Corrective Action Report

PLANT McMANUS Former Ash Pond 1 (AP-1)

Prepared for:

GEORGIA POWER COMPANY

Atlanta, Georgia



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February 28, 2024

Georgia Power Company

2023 Semiannual Groundwater Monitoring and Corrective Action Report

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CERTIFICATION STATEMENT

This 2023 *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), specifically § 257.90(e), 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 391-3-4-.01.

RESOLUTE ENVIRONMENTAL & WATER RESOURCES CONSULTING, LLC

Signature: _____



Date: February 28, 2024

SUMMARY

This summary of the 2023 Semiannual Groundwater Monitoring and Corrective Action Report provides the status of groundwater monitoring and corrective action program from August 2023 through February 2024 (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 6¹ 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 Crispin 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 18, 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.

During the 2023 semiannual reporting period, Resolute conducted the semiannual groundwater and surface water sampling events in September 2023. Samples were submitted to GEL

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

Laboratories (GEL) 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 III² and Appendix IV³ constituents in wells provided in the table below.

Appendix III Constituents	September 2023
Boron	MCM-12 and MCM-17
pH	MCM-05, MCM-06, MCM-07, MCM-12, MCM-14 and MCM-17
Appendix IV Parameter⁴	September 2023
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. An alternate source demonstration (ASD) was approved for lithium at wells MCM-06 and DPZ-02 on May 1, 2023 by GA EPD (Arcadis 2023). 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. A *Draft Remedy Selection Report*, which summarizes the evaluation and proposed selection of a corrective measure, or measures, was submitted to GA EPD in February 2023. In the interim of GA EPD’s review of the *Draft Remedy Selection Report*, the state agency issued a letter on February 16, 2024, stating their support for Georgia Power to initiate a pilot study at the former AP-1 to facilitate further remedy design.

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 An 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 *2023 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 August 2023 through February 2024 (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. The former AP-1 is monitored by an on-site network of piezometers and wells to define groundwater elevation, flow direction, and monitor groundwater condition. The locations of

the wells and piezometers are shown on Figures 2 and 3, respectively; well and piezometer construction details are listed in Tables 1 and 2, respectively.

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 Floridan 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 4-7). 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 3), 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 1 and 2 and Figures 2 and 3.

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

No new wells were installed during the reporting period.

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 2023, 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,
- Installation of new AquaTroll 200 transducers in piezometers MCM-18, MCM-05, and MCM-07.

The well maintenance and repair documentation from August 2023 through February 2024 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 Groundwater Protection Standard (GWPS) at former AP-1 are arsenic in MCM-06 and lithium in MCM-06 and DPZ-02.

An alternate source demonstration (ASD) was approved by GA EPD for lithium at wells MCM-06 and DPZ-02 on May 1, 2023 (Arcadis, 2023).

Pursuant to § 257.96, an *Assessment of Corrective Measures Report (ACM)* was initiated for the former AP-1 on 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. On February 28, 2023, a Draft Remedy Selection Report was submitted to GA EPD and is currently under review. 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 (Table 4) were sampled for the complete list of Appendix III and Appendix IV parameters (Table

5A) in the monitoring event conducted in September 2023. A summary of the analyses collected is provided in Table 5A. 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

Georgia Power has elected to sample the six piezometers (PT-01, PT-2, PT-03, PT-4D, DR-01 and DR-02) and assessment monitoring wells (MCM-06, MCM-20 and DPZ-02) on a quarterly basis to establish baseline conditions prior to the implementation of the pilot-scale remediation study. The referenced wells were sampled during the semiannual September 2023 groundwater sampling event and a subsequent December 2023 supplemental event. Refer to Figure 3 for the piezometer locations.

Groundwater collected during the semiannual September 2023 and supplemental December 2023 monitoring events were analyzed for additional geochemical parameters (magnesium, potassium, sodium, iron, dissolved iron, manganese, dissolved manganese, sulfide, nitrate and alkalinity). Samples from the supplemental event were also analyzed for arsenic, sulfate, and TDS with MCM-06 also being analyzed for chloride and fluoride. The data were collected in support of evaluating the geochemical composition of the groundwater and surface water in conjunction with the ACM. Samples collected during the September 2023 event were analyzed by GEL with split sulfide samples being submitted to Eurofins for comparison. After review of the GEL and Eurofins sulfide data, the Eurofins results are more consistent with historical data that were greater than the minimum detection limit (MDL) and are consistent with the geochemical conceptual site model presented in the Draft Remedy Selection Report (Arcadis 2023). Samples collected during the December 2023 event were analyzed by GEL with the exception of sulfide. Sulfide analysis for the December 2023 event was solely performed by Eurofins.

The laboratory reports associated with the data described above are provided in Appendix B and a summary of the data are presented in Tables 5A and 5B.

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 previously collected 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). Based on the approval of the lithium ASD in May 2023 and the corresponding distribution of lithium in groundwater, as well as the lack of significant detections in the surface water transects during prior sampling events, Georgia Power reduced the surface water sampling to Transect 2 (T-2) adjacent to monitoring well MCM-06 and removed lithium as an analytical constituent during this reporting period. Future surface water sampling events will

continue to be limited to Transect 2 (T-2). Background surface water samples have been and will continue to be collected at a low tide background location, BG-1LT, in Cowpen Creek, north of its confluence with Burnett Creek, and at a high tide background location, BG-2HT, located in the Turtle River, north of its confluence with Gibson Creek. Surface water sampling will continue on a semiannual basis to support ongoing assessment monitoring. Surface water samples are collected in accordance with USEPA Region 4 Science and Ecosystem Support Division (SESD), Operating Procedure, Surface Water Sampling SESDPROC-201-R5 (December 23, 2021).

September 2023 Sampling

In September 2023, surface water samples were collected during high tide (HT, HTS) from each point along transect T2. Low tide surface water samples (LT) were collected from Transect 2 (T2) at the fourth location (i.e., T2-4). Background samples were collected at high tide background location BG-2HT and low tide background location BG-1LT.

Surface water collected during the September 2023 sampling was analyzed for arsenic, Appendix III parameters, and additional geochemical parameters (magnesium, potassium, sodium, 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.

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 16 wells (MCM-01, -02, -04 through -07, -11, -12, -14 through -20, and DPZ-02) and 17 piezometers (MCM-03, -08, -10 -13, PZ-09 through PZ-12, DPZ-01, DPZ-03 through -06, and PT-01 through PT-04D). When other wells and piezometers in the network are utilized for potentiometric surface maps, they are gauged by hand using a Heron water level indicator. Groundwater elevations calculated during the September 2023 monitoring events are summarized in Table 3. Groundwater elevation data was used to develop a high tide and low tide potentiometric surface elevation contour map for each event (Figures 4 and 5). 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 $\left(\frac{\text{feet}}{\text{day}}\right)$

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

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

η_e = Effective porosity

Horizontal groundwater flow velocities were calculated for two well pairs at high and low tide using groundwater elevations collected on September 13, 2023. Groundwater flow velocities representing groundwater historically 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 -0.0129 feet per day (ft/day) at low tide and -0.0116 ft/ day at high tide in September 2023, while groundwater flow for MCM-11 and MCM-12 was 0.0356 ft/ day at low tide and 0.0394 ft/day at high tide. The groundwater gradient from

MCM-16 to MCM-02 has previously been from the mainland toward the former AP-1 and calculated as a positive gradient in that direction. However, during the September 2023 event, the gradient was very flat (approximately 0.01 ft/day, and negative, indicating a slight flow from MCM-02 toward MCM-16. This flat and slightly negative gradient may be the result of localized mounding around MCM-02, potentially from a precipitation event, and will be further evaluated during the next groundwater sampling event. The groundwater elevations around the former AP-1 are not high enough to cause a reversal of flow from MCM-02 to MCM-16. The groundwater gradient from MCM-11 to MCM-12 indicates a groundwater flow direction from the former island to the marsh at both high and low tides. For September 2023, average groundwater flow velocities were 0.014 ft/day or 5.08 feet per year (ft/year) at high tide and 0.011 ft/day or 4.15 ft/yr at low tide.

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
- $\pm 5\%$ for specific conductance
- ± 0.2 milligrams per liter (mg/L) or $\pm 10\%$, 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, samples were collected in appropriately preserved laboratory-supplied containers, placed in ice-packed coolers. No filtered samples were collected during this reporting period for Appendix III and IV analyses.

Upon completion of the sampling events in September and December 2023, samples were submitted to GEL for Appendix III and IV analysis. As described in Section 2.3.1, samples were submitted to GEL and Eurofins Scientific for additional geochemical analyses. Sample submittals

followed chain-of-custody protocol. The field sampling forms generated during this reporting period are included in Appendix B.

3.4 LABORATORY ANALYSES

Laboratory analysis was performed by GEL and Eurofins, which are accredited by National Environmental Laboratory Accreditation Program (NELAP) and maintain a NELAP certification for all Appendix III and Appendix IV constituents and geochemical parameters analyzed for this project.

The groundwater analytical results from this reporting period are summarized in Table 5A and 5B, and the laboratory analytical reports are provided in Appendix B. The surface water results for the reporting period are summarized in Table 6, and the laboratory analytical reports are provided in Appendix C. The pH field measurements recorded during the groundwater and surface water sampling events are also provided in Tables 5A and 6, respectively.

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 the reporting period 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, 2023). 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 the statistical analysis reports 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 2023 sample event.

If data from a sampling event initially exceeds 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

To statistically compare groundwater data to GWPS, confidence intervals are constructed for each of the detected Appendix IV constituents in each downgradient detection and assessment

monitoring well with a minimum of four samples. In accordance with Section 21.1.1 of the Unified Guidance (USEPA, 2009), four independent data are the minimum population size recommended to construct confidence intervals required to assess SSLs for Appendix IV constituents. Due to supplemental (or ACM investigation) sampling, some Appendix IV constituents at a well location have differing number of analytical data points.

The confidence intervals are compared to the GWPS. Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its GWPS. If a confidence interval exceeds a GWPS, an SSL exceedance is identified. 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 0.04 mg/L; and
 - (iv) Molybdenum 0.1 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 Appendix IV SSLs were identified during the current reporting period:

September 2023 Assessment Monitoring Event

AP-1 (Federal and GA EPD CCR Rule):

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

An ASD was approved for lithium at MCM-06 and DPZ-02 by GA EPD on May 1, 2023 (Arcadis 2023).

Based on EPD guidance, groundwater trends at wells with SSLs were further evaluated by GSC using the Sen's Slope/Mann Kendall trend tests. The full report generated from the analyses is

provided in Appendix D. A statistically-significant decreasing trend was identified for arsenic at MCM-06. 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 2.3.2, to assess horizontal delineation of arsenic, Georgia Power proactively collected surface water samples from along Transect T-2 in the tidal marsh adjacent to well MCM-06 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) using laboratory reporting limits of 0.001 to 0.01 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. The groundwater data from the September 2023 assessment monitoring events were used to generate the arsenic iso-concentration map presented on Figure 9.

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

A *Draft Remedy Selection Report* was submitted to GA EPD on February 28, 2023 (Arcadis 2023). A revision to the Draft Remedy Selection Report was submitted on January 25, 2024 (Arcadis 2024) to correct a typographical error. The *Draft Remedy Selection Report* was submitted under separate cover and is currently being reviewed by GA EPD. 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. The *Draft Remedy Selection Report* presents geochemical approaches (in-situ injections) coupled with monitored natural attenuation as the proposed groundwater remedy for former AP-1.

In the interim of GA EPD's review of the Draft Remedy Selection Report, the state agency issued a letter on February 16, 2024, stating their support for Georgia Power to initiate a pilot study at the former AP-1 to facilitate further remedy design. As discussed in Section 2.3.1, Georgia Power has collected baseline data from wells prior to implementation of a remedial action pilot study. To support remedial design and pilot study planning, further treatability testing was conducted this reporting period after collecting groundwater from MCM-06 in May 2023. Georgia Power will submit a pilot study workplan to GA EPD that summarizes the baseline data, treatability study results, and any additional data to support corrective action design. Updates concerning the pilot study and any additional data to support corrective action design will be reported to GA EPD as brief summaries included as part of semiannual groundwater monitoring and corrective action reporting.

6.3 ANNUAL POTABLE WELL SURVEY

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. Additionally, in 2023 a random sampling of parcels was searched on non-standard online database resources such as Homes.com and Realtor.com. This search indicated the possibility of additional private wells on thirteen residential parcels. These newly identified parcels likely containing potable wells are adjacent to parcels previously identified as having wells. An updated figure has been provided in Appendix E. The findings with the available data are consistent with previous well surveys completed in 2021 and 2022 (Arcadis, 2022, Resolute 2023).

7.0 CONCLUSIONS & FUTURE ACTIONS

This 2023 *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 2023 event at the former AP-1 identified the continued presence of SSLs of arsenic and lithium in detection well MCM-06 and lithium in assessment well DPZ-02. The lithium SSLs in MCM-06 and DPZ-02 have been addressed by an ASD with final approval from EPD on May 1, 2023. The arsenic SSL in MCM-06 is vertically delineated below the GWPS by DPZ-02, and a statistically significant decreasing trend has been observed in arsenic concentrations in MCM-06. Surface water data in Transect 2 (T-2) will continue to be collected and analyzed for arsenic semiannually and reported in semiannual and annual groundwater monitoring reports. Arsenic was not detected above the Georgia instream water quality standard for dissolved arsenic for marine estuary environments in surface water samples collected to date; therefore, no impacts to surface water have been detected and horizontal delineation is complete.

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. In the interim of GA EPD's review of the *Draft Remedy Selection Report*, the state agency issued a letter on February 16, 2024, stating their support for Georgia Power to initiate a pilot study at the former AP-1 to facilitate further remedy design. Prior to initiating pilot testing Georgia Power will submit a Pilot Study Work Plan and Pilot Test Notification Form for EPD review. The next routine semiannual assessment monitoring event for former AP-1 is scheduled for March 2024.

8.0 REFERENCES

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TABLES

Table 1
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. Georgia 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 2
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-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. Georgia 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 3
Summary of Groundwater Elevations
Plant McManus
Former AP-1
Brunswick, Georgia

			September 13, 2023	September 13, 2023
			0857	1429
			0843	1412
			1055	1548
Well ID	Top of Casing Elevation [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	8.63	-18.56	5.22	5.02
MCM-02	11.25	-16.77	7.17	7.15
MCM-03	9.97	-17.70	4.77	4.73
MCM-04	12.39	-16.10	4.26	3.59
MCM-05	10.04	-17.96	3.97	2.79
MCM-06	10.15	-17.03	3.58	2.08
MCM-07	10.20	-13.53	3.61	2.92
MCM-08	9.42	-18.88	3.69	3.65
MCM-10	11.75	-12.19	5.51	5.53
MCM-11	10.23	-13.63	5.31	5.23
MCM-12	11.87	-16.97	3.45	3.55
MCM-13	12.56	-14.79	3.16	2.99
MCM-14	11.50	-16.45	3.64	1.93
MCM-15	12.84	-13.73	4.71	4.43
MCM-16	16.02	-12.58	7.08	7.05
MCM-17	11.49	-15.77	3.25	2.86
MCM-18	9.00	-18.86	3.27	3.28
MCM-19	8.71	-19.61	2.60	1.62
MCM-20	10.07	-12.98	2.44	1.15
DR-01	7.58	-23.00	3.27	2.05
DR-02	7.49	-22.54	3.25	2.02
PT-01	7.49	-16.89	3.50	1.94
PT-02	7.64	-16.74	3.57	2.00
PT-03	7.45	-17.91	3.55	2.00
PT-04D	7.51	-33.34	3.55	2.51
MW-01R	12.61	-14.83	4.93	4.51
MW-02	11.10	-15.28	4.48	4.45
MW-03	11.26	-15.34	3.59	3.51
MW-04	9.20	-17.85	3.42	3.50
MW-05	13.24	-14.21	6.50	6.54
MW-06R	13.31	-10.29	6.52	6.60
MW-07	9.94	-11.62	5.77	5.79
MW-09	10.10	-14.05	4.19	4.11
MW-10	10.24	-17.06	3.60	2.99
MW-11	10.35	-23.05	3.39	1.41
MW-12	10.08	-23.47	4.04	2.72
PZ-9	9.41	-14.64	3.79	3.78
PZ-10	12.17	-10.74	3.67	2.79
PZ-11	9.37	-9.71	4.10	4.09
PZ-12	7.90	-10.80	2.78	2.69
DPZ-01	9.71	-8.99	3.84	2.41
DPZ-02	9.54	-9.16	3.47	2.04
DPZ-03	9.46	-9.24	3.10	2.23
DPZ-04	11.45	-7.25	3.43	2.69
DPZ-05	11.00	-7.70	4.14	3.03
DPZ-06	12.04	-6.66	4.65	4.46
RW-1	9.39	-17.03	2.49	2.33
RW-2	9.96	-17.31	3.03	3.10
RW-3	9.89	-22.40	3.76	3.36
RW-4	9.49	-17.39	3.46	3.20
RW-5	10.11	-27.11	3.53	2.08
RW-6	10.25	-26.34	3.69	3.19
RW-7	10.19	-27.99	3.77	2.35
RW-8	10.22	-21.40	3.71	3.20
RW-9	10.26	-27.45	3.94	3.02
RW-10	10.56	-27.24	3.93	2.69
Staff Gauge	NS	NS	NM	NM
AP Monitor	NS	NS	4.89	4.87
Oil Dock Monitor	NS	NS	2.83	-3.78

Notes:

NS = Not Surveyed
NM = Not Measured
NA = Not Applicable

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

Well ID	Hydraulic Location	September 2023	December 2023	Status of Monitoring Well
Purpose of Sampling Event		Semi-Annual GW Sampling	Supplemental ACM 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	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	X	Assessment
DPZ-02	Downgradient	X	X	Assessment

Notes:

X - Sampled

-- Not Sampled

Table 5A
Appendix III and IV Groundwater Data Summary
Plant McManus
Former AP-1
Brunswick, GA

WELL ID Sample Date	Appendix III							Appendix IV													
	Boron	Calcium	Chloride	Fluoride	Sulfate	TDS	pH	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Radium	Selenium	Thallium
DPZ-02																					
9/14/2023	1.61	158	5380	<0.660	767	10600	6.95	<0.00500	0.0254	0.0583	<0.000200	<0.00150	<0.00300	<0.000300	<0.00250	0.087	<0.0000670	<0.00100	11.7	<0.00750	<0.00300
12/6/2023					761	12200	7.22		0.0189 J												
MCM-01																					
9/12/2023	0.101	10.1	10.7	<0.0330	47.5	80	4.54	<0.00100	0.00628	0.128	0.000253 J	<0.000300	<0.00300	<0.000300	<0.000500	<0.00300	<0.0000670	<0.000200	3.54	<0.00150	<0.000600
MCM-02																					
9/14/2023	0.102	6.64	21.1	<0.0330	28.8	76	5.02	<0.00100	<0.00200	0.075	<0.000200	<0.000300	<0.00300	<0.000300	<0.000500	<0.00300	<0.0000670	<0.000200	3.14	<0.00150	<0.000600
MCM-04																					
9/13/2023	0.047	4.93	10.4	0.0941 J	27.1	51	5.29	<0.00100	0.00601	0.0358	<0.000200	<0.000300	<0.00300	0.00341	<0.000500	<0.00300	<0.0000670	<0.000200	2.05	<0.00150	<0.000600
MCM-05																					
9/12/2023	0.42	61.5	1330	0.374 J	139	2940	6.81	<0.00100	0.0113	0.0257	<0.000200	<0.000300	<0.00300	<0.000300	<0.000500	0.0301	<0.0000670	0.000809 J	4.42	<0.00150	<0.000600
MCM-06																					
9/14/2023	0.807	83.1	2220	0.246 J	263	4240	7.3	<0.00100	0.0653	0.0456	<0.000200	<0.000300	<0.00300	<0.000300	<0.000500	0.0551	<0.0000670	0.000839 J	3.61	<0.00150	<0.000600
12/6/2023			1970	1.1 J	258	3780	7.44		0.0581												
MCM-07																					
9/13/2023	1.21	136	3690	0.982 J	620	7440	6.53	<0.00100	0.0117	0.0745	<0.000200	<0.000300	<0.00300	<0.000300	<0.000500	0.027	<0.0000670	0.000847 J	10.3	<0.00150	<0.000600
MCM-11																					
9/13/2023	0.0783	20.7	98.5	0.362 J	42	274	4.92	<0.00100	0.0217	0.0794	<0.000200	<0.000300	<0.00300	<0.000300	<0.000500	0.00978 J	<0.0000670	<0.000200	3.14	<0.00150	<0.000600
MCM-12																					
9/12/2023	1.42	4.98	326	1.32 J	1.18	1230	6.43	<0.00100	0.00234 J	0.074	0.00137	<0.000300	0.00703 J	0.000429 J	<0.000500	0.0115	<0.0000670	0.000423 J	3.43	<0.00150	<0.000600
MCM-14																					
9/12/2023	0.657	55.3	1180	<0.165	160	2720	6.68	<0.00100	0.00263 J	0.0306	<0.000200	<0.000300	<0.00300	<0.000300	<0.000500	0.0222	<0.0000670	<0.000200	5.46	<0.00150	<0.000600
MCM-15																					
9/12/2023	0.0393	0.953	3.49	<0.0330	6.48	20	4.4	<0.00100	0.00677	0.0272	<0.000200	<0.000300	<0.00300	<0.000300	<0.000500	<0.00300	<0.0000670	0.00141	3.88	<0.00150	<0.000600
MCM-16																					
9/12/2023	0.0613	4.48	13.3	<0.0330	25.2	42	4.45	<0.00100	<0.00200	0.116	0.000209 J	<0.000300	<0.00300	0.000301 J	0.000563 J	<0.00300	<0.0000670	0.00023 J	3.18	<0.00150	<0.000600
MCM-17																					
9/13/2023	1.97	84.6	2660	1.46 J	300	6310	6.55	<0.00100	0.00283 J	0.0706	0.000249 J	<0.000300	0.00608 J	<0.000300	<0.000500	0.037	<0.0000670	0.000217 J	4.44	<0.00150	<0.000600
MCM-18																					
9/14/2023	0.229	21.1	1190	0.251 J	165	2040	4.17	<0.00100	0.00374 J	0.127	0.00267	<0.000300	<0.00300	<0.000300	<0.000500	0.00366 J	<0.0000670	<0.000200	4.91	0.00948	<0.000600

Table 5A
Appendix III and IV Groundwater Data Summary
Plant McManus
Former 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																							
9/13/2023	1.2	202	8600	<0.660	1300	15500	5.05	<0.00100	0.0172	0.097	0.00707	<0.000300	0.00386 J	<0.000300	<0.000500	0.0415	<0.0000670	<0.000200	27.3	0.0237	<0.000600		
MCM-20																							
9/13/2023	1.02	108	5250	3.98 J	832	10300	3.67	<0.00100	0.0182	0.101	0.015	<0.000300	0.00673 J	0.0241	0.000678 J	0.0493	<0.0000670	<0.000200	34.9	0.0182	<0.000600		
12/6/2023					917	11400	3.66			0.0257													

- 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 AP-1
 Brunswick, GA

WELL ID	Sample Date	Total Alkalinity	Bicarbonate	Carbonate	Iron	Iron, Diss.	Manganese	Manganese, Diss.	Magnesium	Potassium	Sodium	Sulfide	Nitrate
DPZ-02													
	9/14/2023				<0.0330	0.132	0.188	0.197				20	
	12/6/2023				<0.0330	<0.0330	0.180	0.179				18	<0.165
MCM-01													
	9/12/2023				2.54								
MCM-02													
	9/14/2023				1.01								
MCM-04													
	9/13/2023				1.83								
MCM-05													
	9/12/2023				<0.0330								
MCM-06													
	9/14/2023				0.0513 J	0.0597 J	0.0851	0.0848				23	
	12/6/2023	276	276	<0.725	<0.0330	<0.0330	0.0708	0.0735	135	66.3	1250	24	<0.165
MCM-07													
	9/13/2023				0.276								
MCM-11													
	9/13/2023				9.54								
MCM-12													
	9/12/2023				0.173								
MCM-14													
	9/12/2023				<0.0330								

Table 5B
 Geochemical Groundwater Data Summary
 Plant McManus
 Former AP-1
 Brunswick, GA

WELL ID	Sample Date	Total Alkalinity	Bicarbonate	Carbonate	Iron	Iron, Diss.	Manganese	Manganese, Diss.	Magnesium	Potassium	Sodium	Sulfide	Nitrate
MCM-15	9/12/2023				0.809								
MCM-16	9/12/2023				0.874								
MCM-17	9/13/2023				0.269								
MCM-18	9/14/2023				31.1								
MCM-19	9/13/2023				129								
MCM-20	9/13/2023				116	113	0.0611	0.0563					
	12/6/2023				102	103	0.0557	0.0553				0.81	<0.660

- 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
 5. Split sulfide samples were collected in September 2023 and submitted to GEL and Eurofins for comparison. Eurofins sulfide results are reported in the table due to consistency with previous results.

Table 6
 Surface Water Data Summary
 Plant McManus
 Former AP-1
 Brunswick, GA

Sample ID	Date	pH	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Arsenic (mg/L)	Boron (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	9/12/2023	7.08	316	932	291	8530	0.00894 J	3.24	117	<0.725	117	27100	13200	<1.32	2130
BG-2HT	9/12/2023	6.93	348	1010	327	9500	0.00763 J	3.64	121	<0.725	121	27400	14200	<1.32	2800
T2-1HT	9/12/2023	7.09	319	935	295	8140	0.008 J	3.2	117	<0.725	117	24100	12600	<1.32	2880
T2-2HT	9/12/2023	7.04	309	911	287	8100	0.00834 J	3.11	118	<0.725	118	27200	12200	<1.32	3320
T2-2HTS	9/12/2023	7.05	314	925	291	8180	0.00731 J	3.2	118	<0.725	118	25400	17500	2.41 J	3070
T2-3HT	9/12/2023	7.04	324	954	301	8490	0.0079 J	3.26	117	<0.725	117	25400	13800	<1.32	2620
T2-3HTS	9/12/2023	7.08	312	917	289	8200	0.00804 J	3.21	117	<0.725	117	26500	13100	<1.32	2320
T2-4HT	9/12/2023	7.09	325	950	299	8480	0.00821 J	3.28	117	<0.725	117	25800	13600	<1.32	1670
T2-4HTS	9/12/2023	7.07	323	942	298	8300	0.00802 J	3.34	116	<0.725	116	28500	13000	1.34 J	2190
T2-4LT	9/12/2023	7.11	273	787	248	6900	0.00797 J	2.82	112	<0.725	112	23100	10900	<1.32	1730

1. Results shown in milligrams per liter (mg/L).
2. "<" - not detected at the laboratory's Method Detection Limit (MDL) shown
3. "J" - Estimated concentration greater than the laboratory's MDL, but less than the laboratory's reporting limit.
4. Total Alk - Total Alkalinity
5. TDS - Total Dissolved Solids

Table 7
 2023 Horizontal Groundwater Flow Velocity Calculations
 Plant McManus
 Former AP-1
 Brunswick, GA

Tide Level	9/13/2023		9/13/2023	
	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	7.05	5.23	7.08	5.31
Head Well 2	7.15	3.55	7.17	3.45
Hydraulic gradient i	-0.00132	0.00366	-0.00119	0.00405
K (cm/s site avg. from slug tests)	0.0012	0.0012	0.0012	0.0012
Effectively Porosity Ne (0.35 from HAR)	0.35	0.35	0.35	0.35
Velocity in cm/s	-4.53E-06	1.26E-05	-4.08E-06	1.39E-05
Velocity in ft/day	-0.0129	0.0356	-0.0116	0.0394
Velocity in ft/year	-4.69	12.99	-4.22	14.38
Average Velocity ft/day	0.011		0.014	
Average Velocity ft/year	4.15		5.08	

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 2023
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		34.9	34.9
Fluoride, Total (mg/L)	4		3.98	4
Lead, Total (mg/L)	n/a	0.015	0.005	0.015
Lithium, Total (mg/L)	n/a	0.04	0.049	0.049
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		0.034	0.05
Thallium, Total (mg/L)	0.002		0.002	0.002

Groundwater Protection Standards from Appendix D - Groundwater Stats Consulting, September 2023

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) Rule 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



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community




1003 Weatherstone Parkway
 Suite 320
 Woodstock, GA 30188

**Plant McManus Former AP-1
 Site Location Map**

Brunswick, GA

Legend

 CCR Permitted Boundary

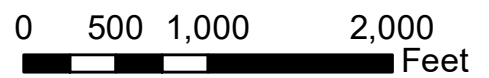
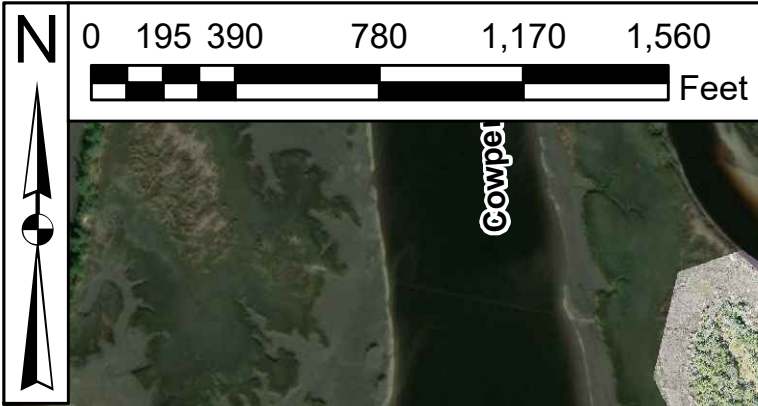


Figure 1

February 2024





Legend	
	Detection Well
	Assessment Well
	CCR Permitted Boundary

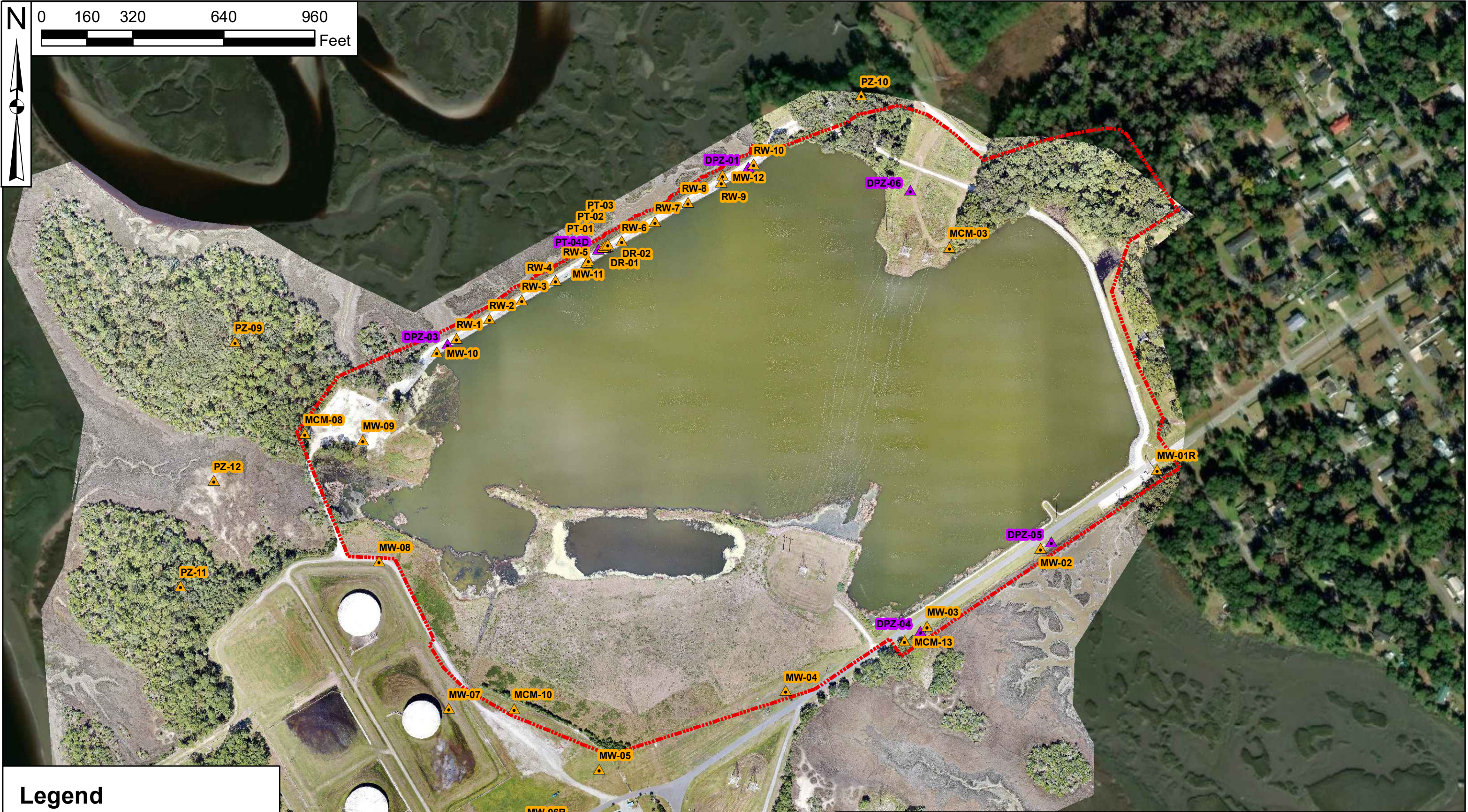
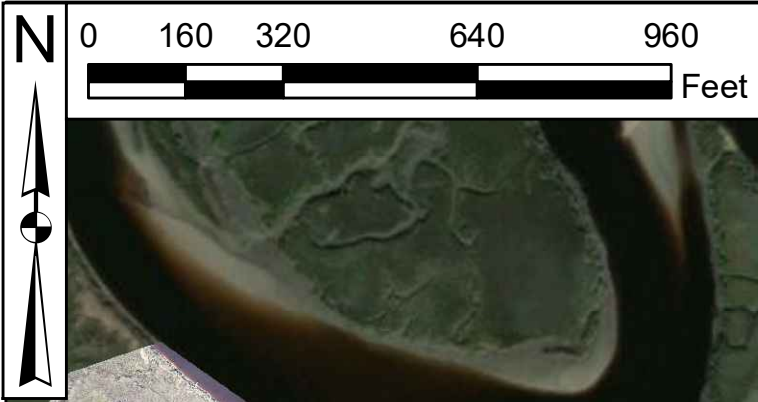
Resolute
Environmental & Water Resources Consulting

Woodstock, GA	February 2024
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**Plant McManus
Former AP-1
Monitoring Well Location Map**

Brunswick, GA

Figure
2



Legend

-  Groundwater Piezometer
-  Deep Piezometer
-  CCR Permitted Boundary

Resolute
Environmental & Water Resources Consulting

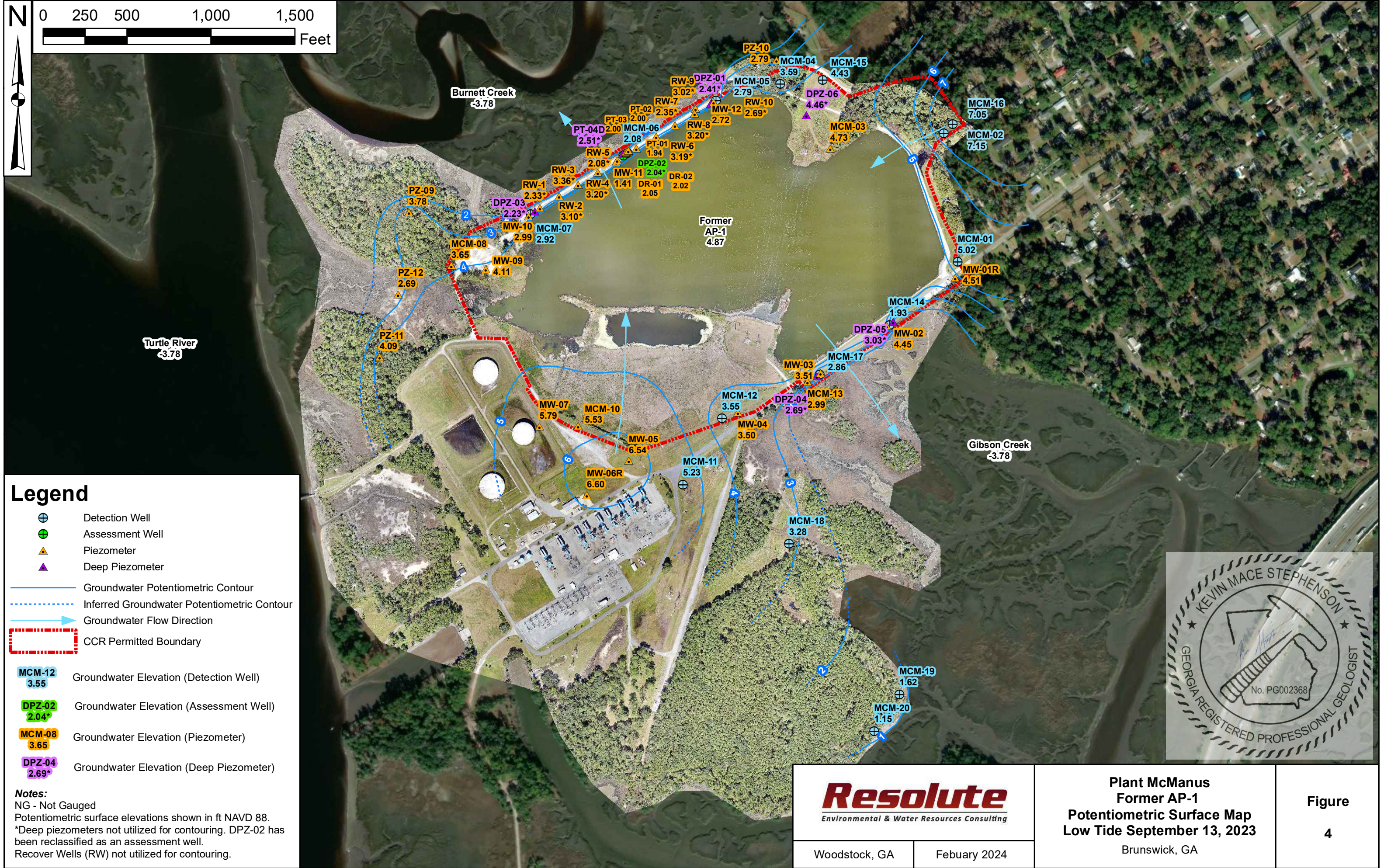
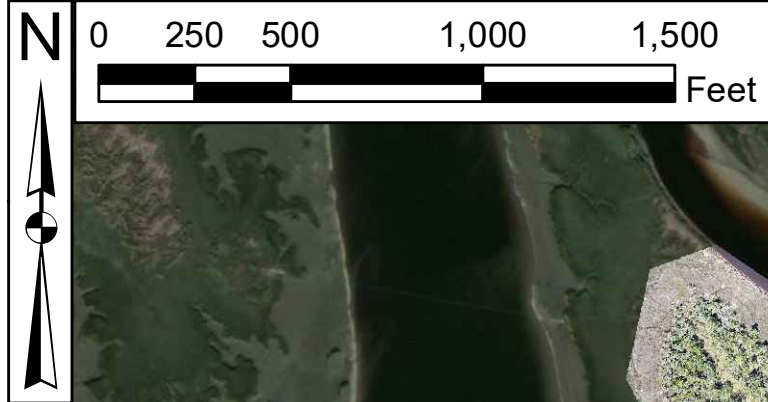
Woodstock, GA February 2024

**Plant McManus
Former AP-1
Piezometer Location Map**

Brunswick, GA

**Figure
3**

2023 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

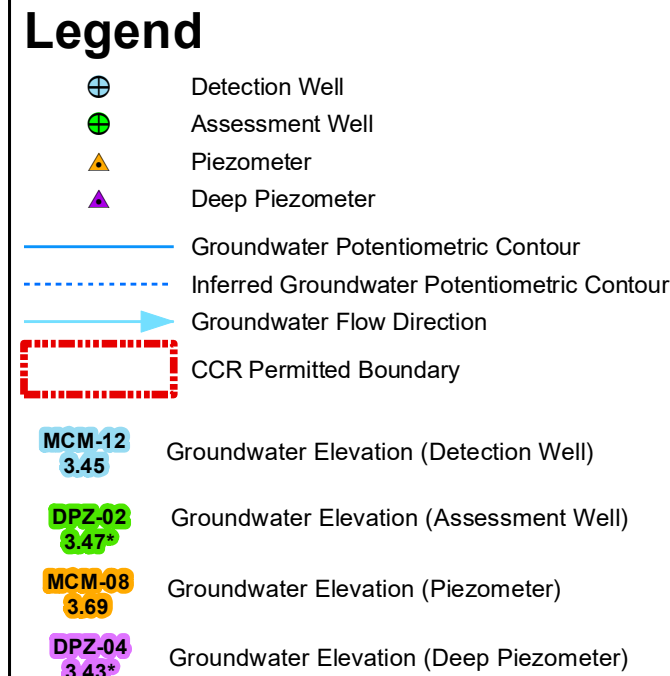
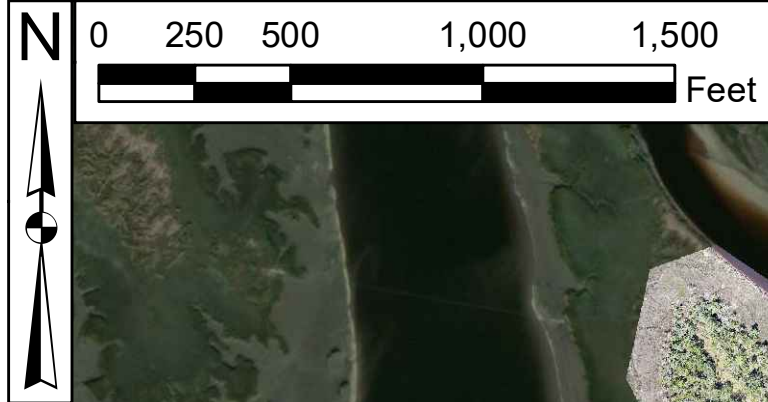
MCM-12 3.55	Groundwater Elevation (Detection Well)
DPZ-02 2.04*	Groundwater Elevation (Assessment Well)
MCM-08 3.65	Groundwater Elevation (Piezometer)
DPZ-04 2.69*	Groundwater Elevation (Deep Piezometer)

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.
 Recover Wells (RW) not utilized for contouring.

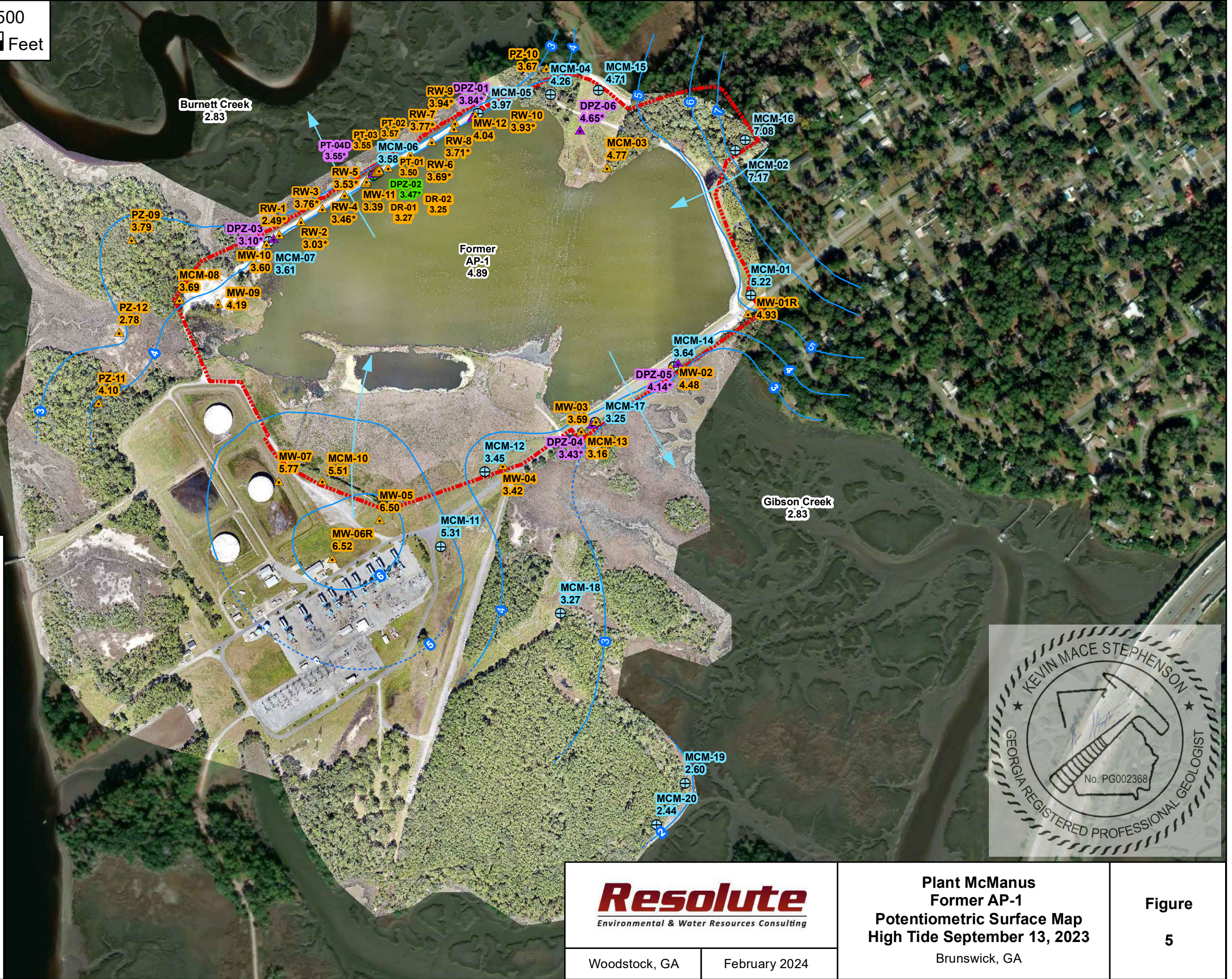


		Plant McManus Former AP-1 Potentiometric Surface Map Low Tide September 13, 2023		Figure 4
		Woodstock, GA	February 2024	

2023 Semiannual Groundwater Monitoring and Corrective Action Plan



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.
 Recover Wells (RW) not utilized for contouring.



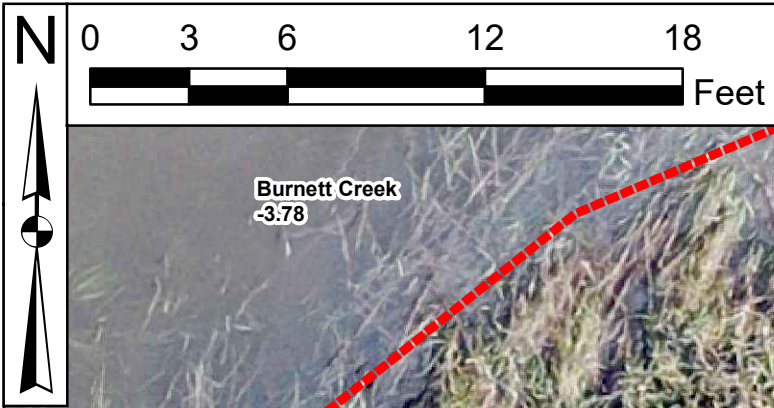
Woodstock, GA

February 2024

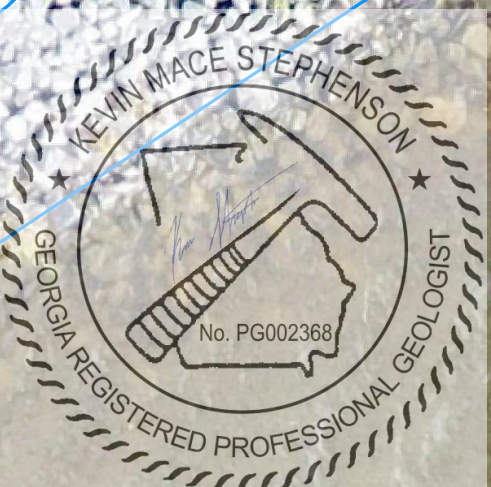
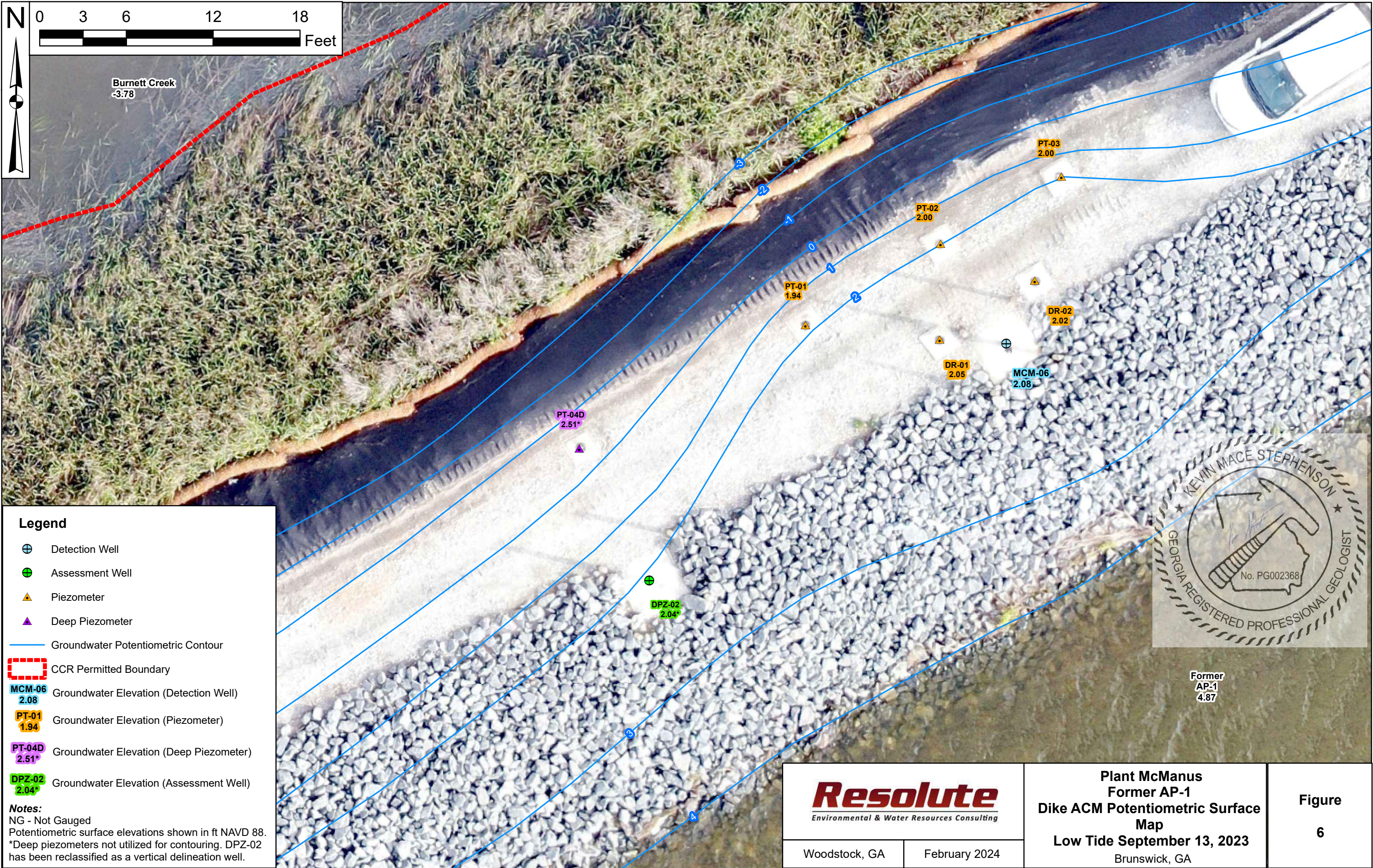
**Plant McManus
 Former AP-1
 Potentiometric Surface Map
 High Tide September 13, 2023**
 Brunswick, GA

**Figure
 5**

2023 Semiannual Groundwater Monitoring and Corrective Action Plan



Burnett Creek
-3.78



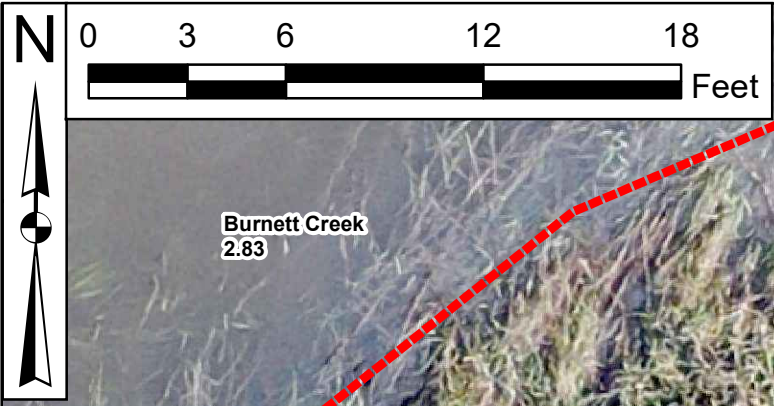
Former
AP-1
4.87

Legend

- Detection Well
- Assessment Well
- Piezometer
- Deep Piezometer
- Groundwater Potentiometric Contour
- CCR Permitted Boundary
- MCM-06**
2.08 Groundwater Elevation (Detection Well)
- PT-01**
1.94 Groundwater Elevation (Piezometer)
- PT-04D**
2.51* Groundwater Elevation (Deep Piezometer)
- DPZ-02**
2.04* 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 a vertical delineation well.

Resolute <i>Environmental & Water Resources Consulting</i>		Plant McManus Former AP-1 Dike ACM Potentiometric Surface Map Low Tide September 13, 2023 Brunswick, GA	Figure 6
Woodstock, GA	February 2024		



Burnett Creek
2.83

Legend

- Detection Well
- Assessment Well
- Piezometer
- Deep Piezometer
- Groundwater Potentiometric Contour
- CCR Permitted Boundary

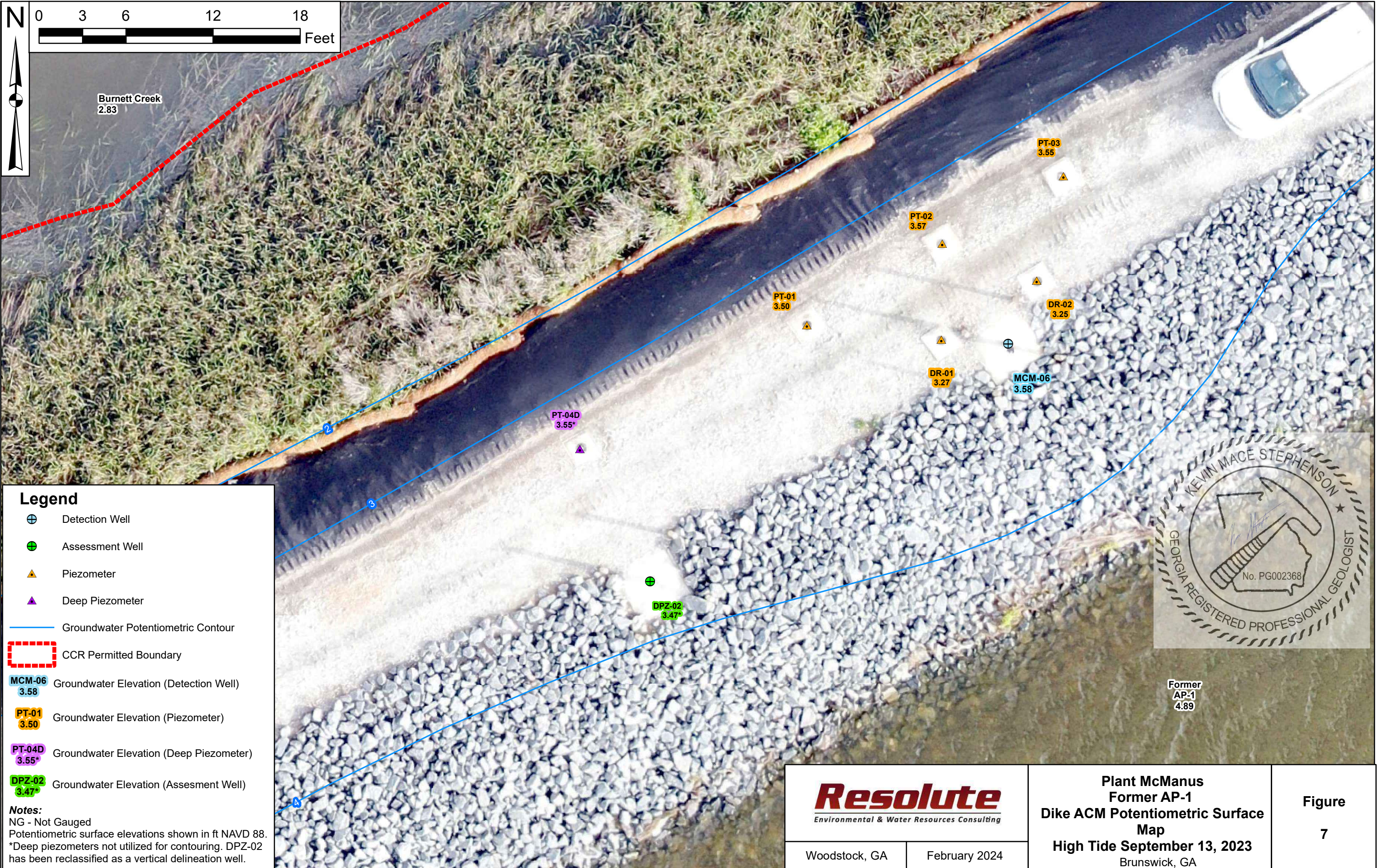
MCM-06 Groundwater Elevation (Detection Well)
3.58

PT-01 Groundwater Elevation (Piezometer)
3.50

PT-04D Groundwater Elevation (Deep Piezometer)
3.55*

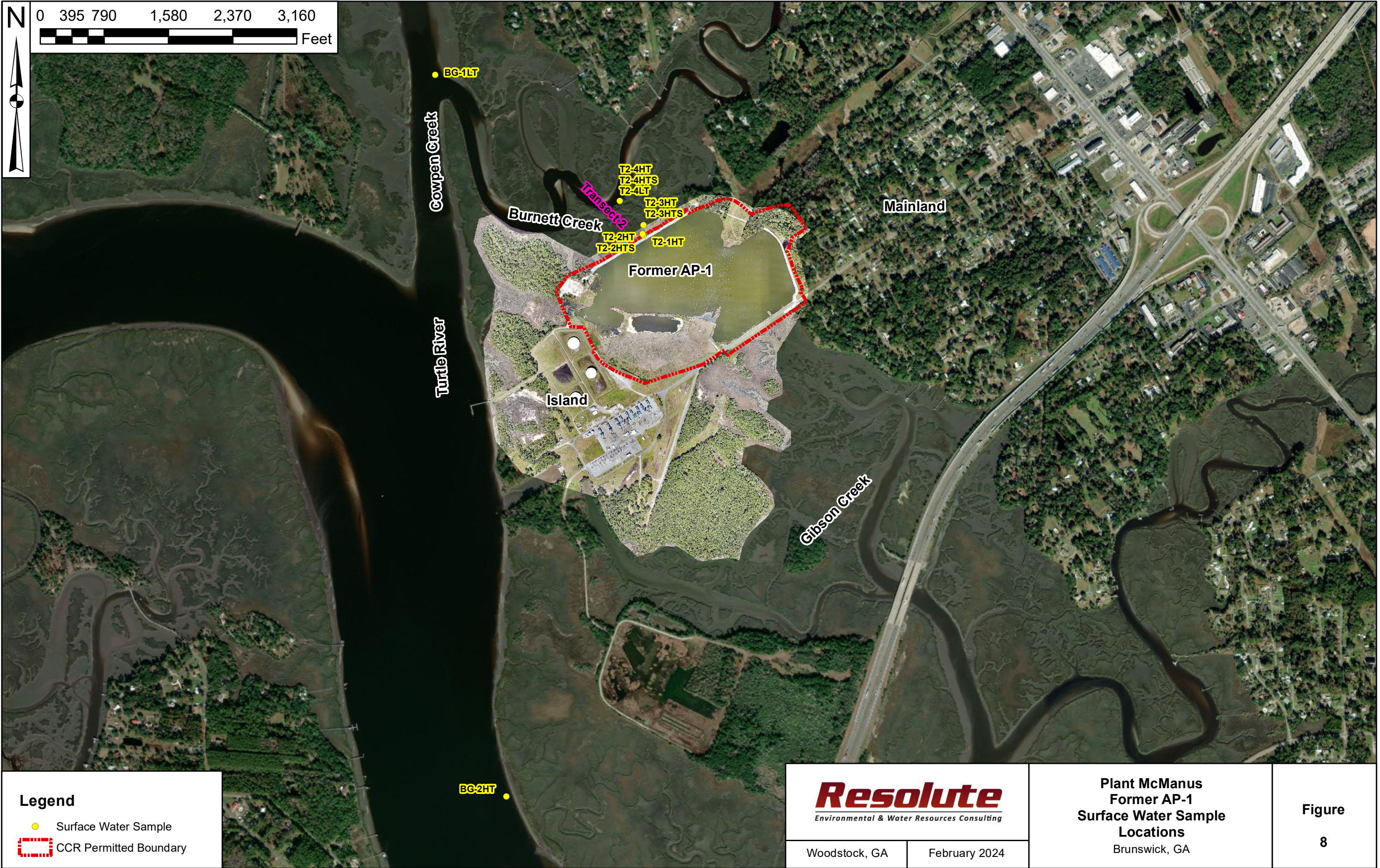
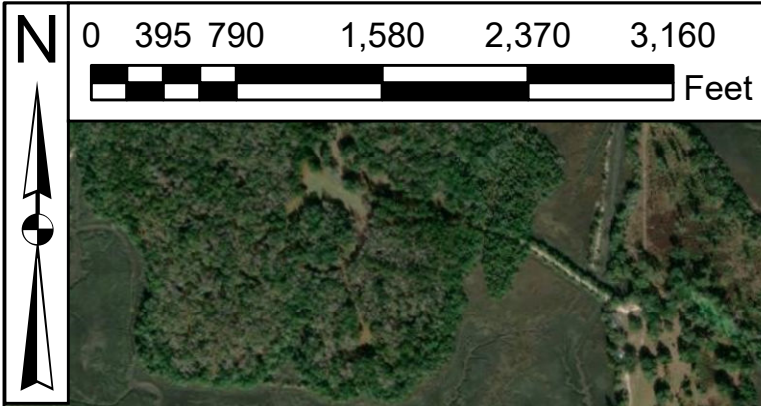
DPZ-02 Groundwater Elevation (Assesment Well)
3.47*

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



Former
AP-1
4.89

Resolute <i>Environmental & Water Resources Consulting</i>		Plant McManus Former AP-1 Dike ACM Potentiometric Surface Map High Tide September 13, 2023 Brunswick, GA	Figure 7
Woodstock, GA	February 2024		



Legend

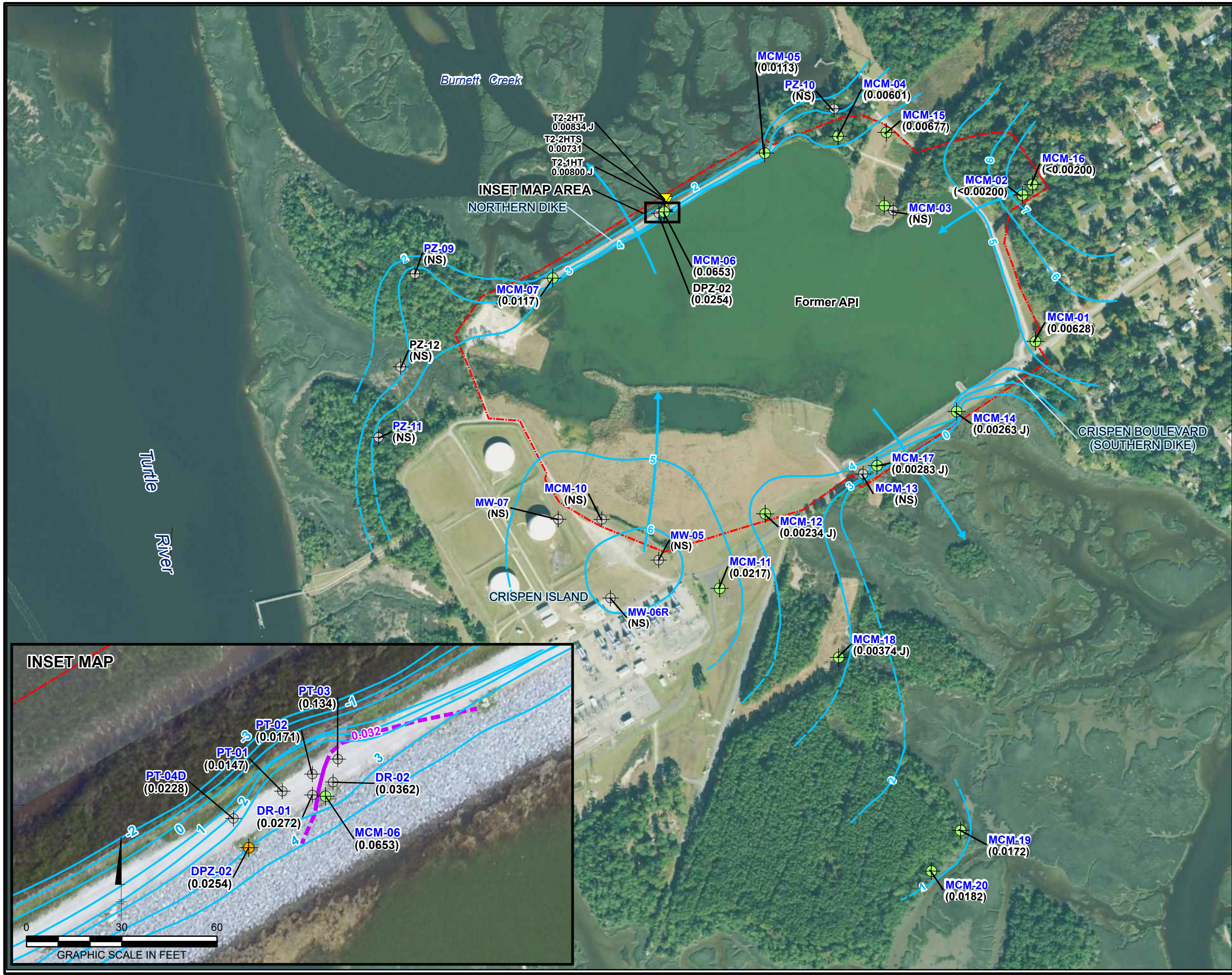
- Surface Water Sample
- CCR Permitted Boundary

Resolute
Environmental & Water Resources Consulting

Woodstock, GA February 2024

**Plant McManus
Former AP-1
Surface Water Sample
Locations**
Brunswick, GA

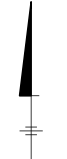
Figure
8

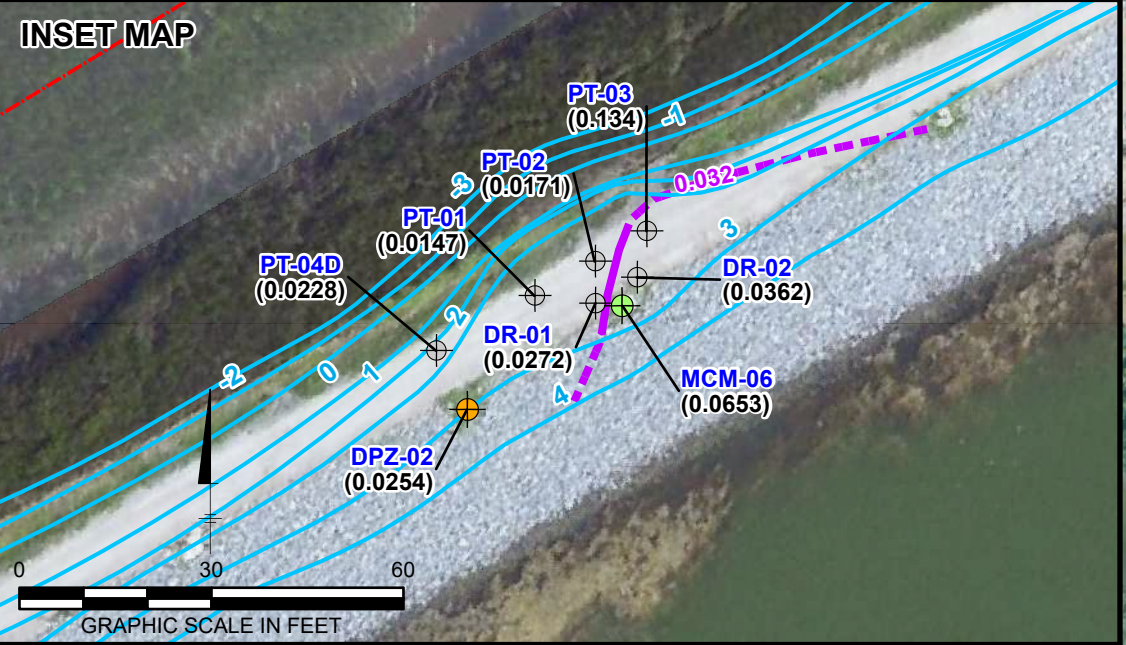


LEGEND

- PERMITTED CCR BOUNDARY
- DETECTION WELL
- ⊕ PIEZOMETER
- ASSESSMENT WELL
- ▼ SURFACE WATER SAMPLE
- ARSENIC ISOCONCENTRATION LINE (SEPTEMBER 2023)
DASHED WHERE INFERRED
- MCM-01 (0.0182) WELL ID WITH ARSENIC CONCENTRATION

- NOTES:**
1. BLUE LABELS INDICATE WELL WAS USED FOR GROUNDWATER ELEVATION CONTOURING. BLACK LABELS ARE ARSENIC CONCENTRATIONS.
 2. DATA SHOWN FROM GROUNDWATER SAMPLING EVENT CONDUCTED SEPTEMBER 2023.
 3. ISOCONCENTRATION LINE DEVELOPED FROM GROUNDWATER COLLECTED DURING SEPTEMBER 2023 SAMPLING EVENT AND HIGH RESOLUTION INVESTIGATION (ARCADIS 2021B) ISOCONTOUR DASHED WHERE APPROXIMATE.
 4. CONCENTRATIONS REPORTED IN MILLIGRAMS PER LITER (MG/L).
 5. ASSESSMENT WELL DPZ-02 DATA ARE NOT USED IN ISOCONTOUR DEVELOPMENT.
 6. NS = NOT SAMPLED.
 7. CCR = COAL COMBUSTION RESIDUALS
 8. < = NOT DETECTED AT OR ABOVE ADJUSTED REPORTING LIMIT.
 9. ARSENIC GROUNDWATER PROTECTION STANDARD = 0.032 MILLIGRAMS PER LITER.
 11. LOW TIDE GROUNDWATER CONTOURS BASED ON INTERPRETATION PRESENTED IN 2023 SEMIANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT (RESOLUTE, 2024).


 0 500 1,000
 GRAPHIC SCALE IN FEET
 COORDINATE SYSTEM: NAD 1983 STATE PLANE
 GEORGIA EAST FIPS 1001 FEET






 PLANT MCMANUS FORMER ASH POND 1
 BRUNSWICK, GEORGIA
**ARSENIC ISOCONCENTRATION MAP
 SEPTEMBER 2023**


FIGURE
9

APPENDIX A

WELL INSTALLATION, MAINTENANCE AND REPAIR DOCUMENTATION

Well Inspection

Site Name: Plant McManus Former AP-1

Date: 9/13/2023

Permit Number: 063-060D (CCR)

Field Conditions: 90/70, 20% Rain

Well ID:	Location/Identification			
	Visible and accessible	Properly identified with correct well ID	Located in high traffic area; does the well require protection from traffic	Acceptable drainage around well (no standing water, not located in obvious drainage flow path)
MCM-01	YES	YES	NO	YES
MCM-02	YES	YES	NO	YES
MCM-04	YES	YES	NO	YES
MCM-05	YES	YES	NO	YES
MCM-06	YES	YES	NO	YES
MCM-07	YES	YES	NO	YES
MCM-11	YES	YES	NO	YES
MCM-12	YES	YES	NO	YES
MCM-14	YES	YES	NO	YES
MCM-15	YES	YES	NO	YES
MCM-16	YES	YES	NO	YES
MCM-17	YES	YES	NO	YES
MCM-18	YES	YES	NO	YES
MCM-19	YES	YES	NO	YES
MCM-20	YES	YES	NO	YES
DPZ-02	YES	YES	NO	YES
MW-01R	YES	YES	NO	YES
MW-02	YES	YES	NO	YES
MW-03	YES	YES	NO	YES
MW-04	YES	YES	NO	YES
MW-05	YES	YES	NO	YES
MW-06R	YES	YES	NO	YES
MW-07	YES	YES	NO	YES
MW-09	YES	YES	NO	YES
MW-10	YES	YES	NO	YES
MW-11	YES	YES	NO	YES
MW-12	YES	YES	NO	YES
MWA-18	YES	YES	NO	YES
MCM-03	YES	YES	NO	YES
MCM-08	YES	YES	NO	YES
MCM-10	YES	YES	NO	YES
MCM-13	YES	YES	NO	YES
PZ-09	YES	YES	NO	YES
PZ-10	YES	YES	NO	YES
PZ-11	YES	YES	NO	YES
PZ-12	YES	YES	NO	YES

Well Inspection

Site Name: Plant McManus Former AP-1

Date: 9/13/2023

Permit Number: 063-060D (CCR)

Field Conditions: 90/70, 20% Rain

Well ID:	Location/Identification			
	Visible and accessible	Properly identified with correct well ID	Located in high traffic area; does the well require protection from traffic	Acceptable drainage around well (no standing water, not located in obvious drainage flow path)
DPZ-01	YES	YES	NO	YES
DPZ-03	YES	YES	NO	YES
DPZ-04	YES	YES	NO	YES
DPZ-05	YES	YES	NO	YES
DPZ-06	YES	YES	NO	YES
RW-1	YES	YES	NO	YES
RW-2	YES	YES	NO	YES
RW-3	YES	YES	NO	YES
RW-4	YES	YES	NO	YES
RW-5	YES	YES	NO	YES
RW-6	YES	YES	NO	YES
RW-7	YES	YES	NO	YES
RW-8	YES	YES	NO	YES
RW-9	YES	YES	NO	YES
RW-10	YES	YES	NO	YES
DR-01	YES	YES	NO	YES
DR-02	YES	YES	NO	YES
PT-01	YES	YES	NO	YES
PT-02	YES	YES	NO	YES
PT-03	YES	YES	NO	YES
PT-04D	YES	YES	NO	YES

Well Inspection

Site Name: Plant McManus Former AP-1

Date: 9/13/2023

Permit Number: 063-060D (CCR)

Field Conditions: 90/70, 20% Rain

Well ID:	Protective Casing				
	Free from apparent damage and able to be secured	No degradation or deterioration	Functioning weep hole	Annular space clear of debris and water, or filled with pea gravel/sand	Locked and is the lock in good condition
MCM-01	YES	YES	YES	YES	YES
MCM-02	YES	YES	YES	YES	YES
MCM-04	YES	YES	YES	YES	YES
MCM-05	YES	YES	YES	YES	YES
MCM-06	YES	YES	YES	YES	YES
MCM-07	YES	YES	YES	YES	YES
MCM-11	YES	YES	YES	YES	YES
MCM-12	YES	YES	YES	YES	YES
MCM-14	YES	YES	YES	YES	YES
MCM-15	YES	YES	YES	YES	YES
MCM-16	YES	YES	YES	YES	YES
MCM-17	YES	YES	YES	YES	YES
MCM-18	YES	YES	YES	YES	YES
MCM-19	YES	YES	YES	YES	YES
MCM-20	YES	YES	YES	YES	YES
DPZ-02	YES	YES	YES	YES	YES
MW-01R	YES	YES	YES	YES	YES
MW-02	YES	YES	YES	YES	YES
MW-03	YES	YES	YES	YES	YES
MW-04	YES	YES	YES	YES	YES
MW-05	YES	YES	YES	YES	YES
MW-06R	YES	YES	YES	YES	YES
MW-07	YES	YES	YES	YES	YES
MW-09	YES	YES	YES	YES	YES
MW-10	YES	YES	YES	YES	YES
MW-11	YES	YES	YES	YES	YES
MW-12	YES	YES	YES	YES	YES
MWA-18	YES	YES	YES	YES	YES
MCM-03	YES	YES	YES	YES	YES
MCM-08	YES	YES	YES	YES	YES
MCM-10	YES	YES	YES	YES	YES
MCM-13	YES	YES	YES	YES	YES
PZ-09	YES	YES	YES	YES	YES
PZ-10	YES	YES	YES	YES	YES
PZ-11	YES	YES	YES	YES	YES
PZ-12	YES	YES	YES	YES	YES

Well Inspection

Site Name: Plant McManus Former AP-1

Date: 9/13/2023

Permit Number: 063-060D (CCR)

Field Conditions: 90/70, 20% Rain

Well ID:	Protective Casing				
	Free from apparent damage and able to be secured	No degradation or deterioration	Functioning weep hole	Annular space clear of debris and water, or filled with pea gravel/sand	Locked and is the lock in good condition
DPZ-01	YES	YES	YES	YES	YES
DPZ-03	YES	YES	YES	YES	YES
DPZ-04	YES	YES	YES	YES	YES
DPZ-05	YES	YES	YES	YES	YES
DPZ-06	YES	YES	YES	YES	YES
RW-1	YES	YES	YES	YES	YES
RW-2	YES	YES	YES	YES	YES
RW-3	YES	YES	YES	YES	YES
RW-4	YES	YES	YES	YES	YES
RW-5	YES	YES	YES	YES	YES
RW-6	YES	YES	YES	YES	YES
RW-7	YES	YES	YES	YES	YES
RW-8	YES	YES	YES	YES	YES
RW-9	YES	YES	YES	YES	YES
RW-10	YES	YES	YES	YES	YES
DR-01	YES	YES	YES	YES	YES
DR-02	YES	YES	YES	YES	YES
PT-01	YES	YES	YES	YES	YES
PT-02	YES	YES	YES	YES	YES
PT-03	YES	YES	YES	YES	YES
PT-04D	YES	YES	YES	YES	YES

Well Inspection

Site Name: Plant McManus Former AP-1

Date: 9/13/2023

Permit Number: 063-060D (CCR)

Field Conditions: 90/70, 20% Rain

Well ID:	Surface Pad			Internal Casing		
	Good condition (not cracked/ broken)	Sloped away from the protective casing	In complete contact with the ground surface and stable	Cap prevents entry of foreign material into the well	Free of kinks/bends, or any obstructions from foreign objects (such as bailers)	Properly vented for equilibration of air pressure
MCM-01	YES	YES	YES	YES	YES	YES
MCM-02	YES	YES	YES	YES	YES	YES
MCM-04	YES	YES	YES	YES	YES	YES
MCM-05	YES	YES	YES	YES	YES	YES
MCM-06	YES	YES	YES	YES	YES	YES
MCM-07	YES	YES	YES	YES	YES	YES
MCM-11	YES	YES	YES	YES	YES	YES
MCM-12	YES	YES	YES	YES	YES	YES
MCM-14	YES	YES	YES	YES	YES	YES
MCM-15	YES	YES	YES	YES	YES	YES
MCM-16	YES	YES	YES	YES	YES	YES
MCM-17	YES	YES	YES	YES	YES	YES
MCM-18	YES	YES	YES	YES	YES	YES
MCM-19	YES	YES	YES	YES	YES	YES
MCM-20	YES	YES	YES	YES	YES	YES
DPZ-02	YES	YES	YES	YES	YES	YES
MW-01R	YES	YES	YES	YES	YES	YES
MW-02	YES	YES	YES	YES	YES	YES
MW-03	YES	YES	YES	YES	YES	YES
MW-04	YES	YES	YES	YES	YES	YES
MW-05	YES	YES	YES	YES	YES	YES
MW-06R	YES	YES	YES	YES	YES	YES
MW-07	YES	YES	YES	YES	YES	YES
MW-09	YES	YES	YES	YES	YES	YES
MW-10	YES	YES	YES	YES	YES	YES
MW-11	YES	YES	YES	YES	YES	YES
MW-12	YES	YES	YES	YES	YES	YES
MWA-18	YES	YES	YES	YES	YES	YES
MCM-03	YES	YES	YES	YES	YES	YES
MCM-08	YES	YES	YES	YES	YES	YES
MCM-10	YES	YES	YES	YES	YES	YES
MCM-13	YES	YES	YES	YES	YES	YES
PZ-09	YES	YES	YES	YES	YES	YES
PZ-10	YES	YES	YES	YES	YES	YES
PZ-11	YES	YES	YES	YES	YES	YES
PZ-12	YES	YES	YES	YES	YES	YES

Well Inspection

Site Name: Plant McManus Former AP-1

Date: 9/13/2023

Permit Number: 063-060D (CCR)

Field Conditions: 90/70, 20% Rain

Well ID:	Surface Pad			Internal Casing		
	Good condition (not cracked/ broken)	Sloped away from the protective casing	In complete contact with the ground surface and stable	Cap prevents entry of foreign material into the well	Free of kinks/bends, or any obstructions from foreign objects (such as bailers)	Properly vented for equilibration of air pressure
DPZ-01	YES	YES	YES	YES	YES	YES
DPZ-03	YES	YES	YES	YES	YES	YES
DPZ-04	YES	YES	YES	YES	YES	YES
DPZ-05	YES	YES	YES	YES	YES	YES
DPZ-06	YES	YES	YES	YES	YES	YES
RW-1	YES	YES	YES	YES	YES	YES
RW-2	YES	YES	YES	YES	YES	YES
RW-3	YES	YES	YES	YES	YES	YES
RW-4	YES	YES	YES	YES	YES	YES
RW-5	YES	YES	YES	YES	YES	YES
RW-6	YES	YES	YES	YES	YES	YES
RW-7	YES	YES	YES	YES	YES	YES
RW-8	YES	YES	YES	YES	YES	YES
RW-9	YES	YES	YES	YES	YES	YES
RW-10	YES	YES	YES	YES	YES	YES
DR-01	YES	YES	YES	YES	YES	YES
DR-02	YES	YES	YES	YES	YES	YES
PT-01	YES	YES	YES	YES	YES	YES
PT-02	YES	YES	YES	YES	YES	YES
PT-03	YES	YES	YES	YES	YES	YES
PT-04D	YES	YES	YES	YES	YES	YES

Well Inspection

Site Name: Plant McManus Former AP-1

Date: 9/13/2023

Permit Number: 063-060D (CCR)

Field Conditions: 90/70, 20% Rain

Well ID:	Corrective actions as needed, by date:
MCM-01	
MCM-02	
MCM-04	
MCM-05	
MCM-06	
MCM-07	
MCM-11	
MCM-12	
MCM-14	
MCM-15	
MCM-16	
MCM-17	
MCM-18	
MCM-19	
MCM-20	
DPZ-02	
MW-01R	
MW-02	
MW-03	
MW-04	
MW-05	
MW-06R	
MW-07	
MW-09	
MW-10	
MW-11	
MW-12	
MWA-18	
MCM-03	
MCM-08	
MCM-10	
MCM-13	
PZ-09	
PZ-10	
PZ-11	
PZ-12	

Well Inspection

Site Name: Plant McManus Former AP-1

Date: 9/13/2023

Permit Number: 063-060D (CCR)

Field Conditions: 90/70, 20% Rain

Well ID:	Corrective actions as needed, by date:
DPZ-01	
DPZ-03	
DPZ-04	
DPZ-05	
DPZ-06	
RW-1	
RW-2	
RW-3	
RW-4	
RW-5	
RW-6	
RW-7	
RW-8	
RW-9	
RW-10	
DR-01	
DR-02	
PT-01	
PT-02	
PT-03	
PT-04D	



MEMORANDUM

Date: February 29, 2024
 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 Former AP-1	9/19/23	MCM-18	Replaced AquaTroll unit with LevelTroll unit from MCM-17
Plant McManus Former AP-1	12/6/2023	MCM-05	New AquaTroll 200 Installed
Plant McManus Former AP-1	12/6/2023	MCM-07	New AquaTroll 200 Installed

All maintenance and repairs are also documented in the 2023 Semiannual Groundwater Monitoring and Corrective Action report.

APPENDIX B

LABORATORY ANALYTICAL, DATA VALIDATION AND FIELD SAMPLING REPORTS

October 06, 2023

Kristen Jurinko
Georgia Power Company
241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308

Re: Plant McManus CCR Groundwater Compliance GW
Work Order: 637268

Dear Kristen Jurinko:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on September 15, 2023. This revised data report has been prepared and reviewed in accordance with GEL's standard operating procedures. The data package is being revised to report the PW sample on its own SDG.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt. The laboratory received the following sample(s):

<u>Laboratory ID</u>	<u>Client ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Recieved</u>
637268001	MCM-MCM-01	Ground Water	12/09/23 10:56	15/09/23 12:00
637268002	MCM-MCM-05	Ground Water	12/09/23 14:30	15/09/23 12:00
637268003	MCM-MCM-12	Ground Water	12/09/23 10:30	15/09/23 12:00
637268004	MCM-MCM-14	Ground Water	12/09/23 13:05	15/09/23 12:00
637268005	MCM-MCM-15	Ground Water	12/09/23 14:28	15/09/23 12:00
637268006	MCM-MCM-16	Ground Water	12/09/23 13:02	15/09/23 12:00
637268007	MCM-API-FD-01	Ground Water	12/09/23 12:00	15/09/23 12:00
637268008	MCM-API-FB-1	Ground Water	12/09/23 15:35	15/09/23 12:00
637268009	MCM-MCM-02	Ground Water	14/09/23 11:40	15/09/23 12:00
637268010	MCM-MCM-06	Ground Water	14/09/23 14:32	15/09/23 12:00
637268011	MCM-MCM-18	Ground Water	14/09/23 10:02	15/09/23 12:00
637268012	MCM-DPZ-02	Ground Water	14/09/23 10:18	15/09/23 12:00
637268013	MCM-PT-01	Ground Water	14/09/23 14:26	15/09/23 12:00
637268014	MCM-PT-02	Ground Water	14/09/23 16:06	15/09/23 12:00



637268015	MCM-PT-03	Ground Water	14/09/23 10:30	15/09/23 12:00
637268016	MCM-PT-04D	Ground Water	14/09/23 11:49	15/09/23 12:00
637268017	MCM-DR-01	Ground Water	14/09/23 16:10	15/09/23 12:00
637268018	MCM-DR-02	Ground Water	14/09/23 12:08	15/09/23 12:00
637268019	MCM-AP1-FD-03	Ground Water	14/09/23 12:00	15/09/23 12:00
637268020	MCM-AP1-FB-03	Ground Water	14/09/23 13:48	15/09/23 12:00
637268021	MCM-AP1-EB-02	Ground Water	14/09/23 13:54	15/09/23 12:00
637268022	MCM-MCM-04	Ground Water	13/09/23 16:45	15/09/23 12:00
637268023	MCM-MCM-07	Ground Water	13/09/23 13:58	15/09/23 12:00
637268024	MCM-MCM-11	Ground Water	13/09/23 13:45	15/09/23 12:00
637268025	MCM-MCM-17	Ground Water	13/09/23 17:15	15/09/23 12:00
637268026	MCM-MCM-19	Ground Water	13/09/23 14:18	15/09/23 12:00
637268027	MCM-MCM-20	Ground Water	13/09/23 16:20	15/09/23 12:00
637268028	MCM-AP1-FD-02	Ground Water	13/09/23 12:00	15/09/23 12:00
637268029	MCM-AP1-FB-02	Ground Water	13/09/23 17:26	15/09/23 12:00
637268030	MCM-AP1-EB-01	Ground Water	13/09/23 17:38	15/09/23 12:00
637268032	MCM-MCM-06	Ground Water	14/09/23 14:32	15/09/23 12:00
637268033	MCM-DPZ-02	Ground Water	14/09/23 10:18	15/09/23 12:00
637268034	MCM-PT-01	Ground Water	14/09/23 14:26	15/09/23 12:00
637268035	MCM-PT-02	Ground Water	14/09/23 16:06	15/09/23 12:00
637268036	MCM-PT-03	Ground Water	14/09/23 10:30	15/09/23 12:00
637268037	MCM-PT-04D	Ground Water	14/09/23 11:49	15/09/23 12:00
637268038	MCM-DR-01	Ground Water	14/09/23 16:10	15/09/23 12:00
637268039	MCM-DR-02	Ground Water	14/09/23 12:08	15/09/23 12:00
637268040	MCM-MCM-20	Ground Water	13/09/23 16:20	15/09/23 12:00

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Prep Methods and Prep Dates

<u>Method</u>	<u>Run Date ID</u>
SW846 3005A	18-SEP-2023
SW846 7470A Prep	19-SEP-2023
SW846 7470A Prep	20-SEP-2023

Analysis Methods and Analysis Dates

<u>Method</u>	<u>Run Date ID</u>
EPA 300.0	15-SEP-2023
EPA 300.0	16-SEP-2023
EPA 300.0	17-SEP-2023
EPA 300.0	18-SEP-2023
SM 2540C	18-SEP-2023
SM 2540C	20-SEP-2023
SM 4500-S (2-) D	18-SEP-2023
SW846 3005A/6020B	27-SEP-2023
SW846 3005A/6020B	28-SEP-2023
SW846 3005A/6020B	29-SEP-2023
SW846 7470A	20-SEP-2023
SW846 7470A	21-SEP-2023
SW846 7470A	26-SEP-2023

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

A handwritten signature in black ink that reads "Erin J. Trent". The signature is written in a cursive style with a large, stylized "E" and "T".

Erin Trent
Project Manager

Purchase Order: GPC82177-0007
Enclosures

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 637268 GEL Work Order: 637268

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- N/A RPD or %Recovery limits do not apply.
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-01 Project: GPCC00105
Sample ID: 637268001 Client ID: GPCC001
Matrix: WG
Collect Date: 12-SEP-23 10:56
Receive Date: 15-SEP-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	0.0330	4.00	mg/L		1	JLD1	09/15/23	1746	2493495	1
Chloride		10.7	0.335	1.00	mg/L		5	JLD1	09/16/23	1310	2493495	2
Sulfate		47.5	0.665	2.00	mg/L		5					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/26/23	1154	2497685	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/28/23	1047	2493473	4
Arsenic		0.00628	0.00200	0.00500	mg/L	1.00	1					
Barium		0.128	0.000670	0.00400	mg/L	1.00	1					
Boron		0.101	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		10.1	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron		2.54	0.0330	0.100	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	J	0.000253	0.000200	0.000500	mg/L	1.00	1	RM4	09/29/23	1300	2493473	5
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1	BAJ	09/28/23	1409	2493473	6
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		80.0	2.38	10.0	mg/L			CH6	09/18/23	1431	2493150	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493472
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	09/25/23	1225	2497683

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-01 Project: GPCC00105
Sample ID: 637268001 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
The following Analytical Methods were performed:											
Method	Description	Analyst Comments									
1	EPA 300.0										
2	EPA 300.0										
3	SW846 7470A										
4	SW846 3005A/6020B										
5	SW846 3005A/6020B										
6	SW846 3005A/6020B										
7	SM 2540C										

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-05	Project: GPCC00105
Sample ID: 637268002	Client ID: GPCC001
Matrix: WG	
Collect Date: 12-SEP-23 14:30	
Receive Date: 15-SEP-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		1330	13.4	40.0	mg/L		200	JLD1	09/16/23	1444	2493495	1
Sulfate		139	26.6	80.0	mg/L		200					
Fluoride	J	0.374	0.0330	4.00	mg/L		1	JLD1	09/15/23	1920	2493495	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/26/23	1155	2497685	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		0.420	0.0260	0.0750	mg/L	1.00	5	BAJ	09/28/23	1151	2493473	4
Calcium		61.5	0.400	1.00	mg/L	1.00	5					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/28/23	1218	2493473	5
Arsenic		0.0113	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0257	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lithium		0.0301	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000809	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1	BAJ	09/28/23	1413	2493473	6
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	RM4	09/29/23	1310	2493473	7
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		2940	23.8	100	mg/L			CH6	09/18/23	1431	2493150	8

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493472
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	09/25/23	1225	2497683

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-05 Project: GPCC00105
Sample ID: 637268002 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
The following Analytical Methods were performed:											
Method	Description	Analyst Comments									
1	EPA 300.0										
2	EPA 300.0										
3	SW846 7470A										
4	SW846 3005A/6020B										
5	SW846 3005A/6020B										
6	SW846 3005A/6020B										
7	SW846 3005A/6020B										
8	SM 2540C										

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-12 Project: GPCC00105
Sample ID: 637268003 Client ID: GPCC001
Matrix: WG
Collect Date: 12-SEP-23 10:30
Receive Date: 15-SEP-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		326	6.70	20.0	mg/L		100	JLD1	09/16/23	1516	2493495	1
Fluoride	J	1.32	0.0330	4.00	mg/L		1	JLD1	09/15/23	1952	2493495	2
Sulfate		1.18	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/26/23	1157	2497685	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/28/23	1220	2493473	4
Arsenic	J	0.00234	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0740	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		4.98	0.0800	0.200	mg/L	1.00	1					
Chromium	J	0.00703	0.00300	0.0100	mg/L	1.00	1					
Cobalt	J	0.000429	0.000300	0.00100	mg/L	1.00	1					
Iron		0.173	0.0330	0.100	mg/L	1.00	1					
Lithium		0.0115	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000423	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium		0.00137	0.000200	0.000500	mg/L	1.00	1	RM4	09/29/23	1312	2493473	5
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1	BAJ	09/28/23	1415	2493473	6
Boron		1.42	0.104	0.300	mg/L	1.00	20	BAJ	09/28/23	1154	2493473	7
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1230	4.76	20.0	mg/L			CH6	09/18/23	1431	2493150	8

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493472
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	09/25/23	1225	2497683

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-12 Project: GPCC00105
Sample ID: 637268003 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
The following Analytical Methods were performed:											
Method	Description	Analyst Comments									
1	EPA 300.0										
2	EPA 300.0										
3	SW846 7470A										
4	SW846 3005A/6020B										
5	SW846 3005A/6020B										
6	SW846 3005A/6020B										
7	SW846 3005A/6020B										
8	SM 2540C										

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-14 Project: GPCC00105
Sample ID: 637268004 Client ID: GPCC001
Matrix: WG
Collect Date: 12-SEP-23 13:05
Receive Date: 15-SEP-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	0.165	4.00	mg/L		5	JLD1	09/15/23	2023	2493495	1
Chloride		1180	13.4	40.0	mg/L		200	JLD1	09/16/23	1547	2493495	2
Sulfate		160	26.6	80.0	mg/L		200					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/26/23	1159	2497685	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		0.657	0.0520	0.150	mg/L	1.00	10	BAJ	09/28/23	1156	2493473	4
Calcium		55.3	0.800	2.00	mg/L	1.00	10					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/28/23	1222	2493473	5
Arsenic	J	0.00263	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0306	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lithium		0.0222	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1	BAJ	09/28/23	1416	2493473	6
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	RM4	09/29/23	1314	2493473	7
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		2720	23.8	100	mg/L			CH6	09/18/23	1431	2493150	8

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493472
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	09/25/23	1225	2497683

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-14 Project: GPCC00105
Sample ID: 637268004 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
The following Analytical Methods were performed:											
Method	Description	Analyst Comments									
1	EPA 300.0										
2	EPA 300.0										
3	SW846 7470A										
4	SW846 3005A/6020B										
5	SW846 3005A/6020B										
6	SW846 3005A/6020B										
7	SW846 3005A/6020B										
8	SM 2540C										

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-15	Project: GPCC00105
Sample ID: 637268005	Client ID: GPCC001
Matrix: WG	
Collect Date: 12-SEP-23 14:28	
Receive Date: 15-SEP-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		3.49	0.0670	0.200	mg/L		1	JLD1	09/15/23	2055	2493495	1
Fluoride	U	ND	0.0330	4.00	mg/L		1					
Sulfate		6.48	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/26/23	1200	2497685	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1	BAJ	09/28/23	1417	2493473	3
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/28/23	1058	2493473	4
Arsenic		0.00677	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0272	0.000670	0.00400	mg/L	1.00	1					
Boron		0.0393	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		0.953	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron		0.809	0.0330	0.100	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum		0.00141	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	RM4	09/29/23	1344	2493473	5
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		20.0	2.38	10.0	mg/L			CH6	09/18/23	1431	2493150	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493472
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	09/25/23	1225	2497683

GEL LABORATORIES LLC

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Certificate of Analysis

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Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-15 Project: GPCC00105
Sample ID: 637268005 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
The following Analytical Methods were performed:												
Method	Description	Analyst Comments										
1	EPA 300.0											
2	SW846 7470A											
3	SW846 3005A/6020B											
4	SW846 3005A/6020B											
5	SW846 3005A/6020B											
6	SM 2540C											

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-16 Project: GPCC00105
Sample ID: 637268006 Client ID: GPCC001
Matrix: WG
Collect Date: 12-SEP-23 13:02
Receive Date: 15-SEP-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		13.3	0.335	1.00	mg/L		5	JLD1	09/16/23	1618	2493495	1
Sulfate		25.2	0.665	2.00	mg/L		5					
Fluoride	U	ND	0.0330	4.00	mg/L		1	JLD1	09/15/23	2126	2493495	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/26/23	1205	2497685	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Beryllium	J	0.000209	0.000200	0.000500	mg/L	1.00	1	RM4	09/29/23	1322	2493473	4
Lead	J	0.000563	0.000500	0.00200	mg/L	1.00	1	BAJ	09/28/23	1421	2493473	5
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/28/23	1100	2493473	6
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.116	0.000670	0.00400	mg/L	1.00	1					
Boron		0.0613	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		4.48	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	J	0.000301	0.000300	0.00100	mg/L	1.00	1					
Iron		0.874	0.0330	0.100	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000230	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		42.0	2.38	10.0	mg/L			CH6	09/18/23	1431	2493150	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	09/25/23	1225	2497683
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493472

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-16 Project: GPCC00105
Sample ID: 637268006 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
The following Analytical Methods were performed:											
Method	Description	Analyst Comments									
1	EPA 300.0										
2	EPA 300.0										
3	SW846 7470A										
4	SW846 3005A/6020B										
5	SW846 3005A/6020B										
6	SW846 3005A/6020B										
7	SM 2540C										

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-FD-01	Project: GPCC00105
Sample ID: 637268007	Client ID: GPCC001
Matrix: WG	
Collect Date: 12-SEP-23 12:00	
Receive Date: 15-SEP-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		3.56	0.0670	0.200	mg/L		1	JLD1	09/16/23	1650	2493495	1
Fluoride	U	ND	0.0330	4.00	mg/L		1					
Sulfate		6.57	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/26/23	1207	2497685	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1	BAJ	09/28/23	1422	2493473	3
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/28/23	1107	2493473	4
Arsenic		0.00647	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0277	0.000670	0.00400	mg/L	1.00	1					
Boron		0.0401	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		0.949	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron		0.755	0.0330	0.100	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum		0.00137	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	RM4	09/29/23	1324	2493473	5
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		20.0	2.38	10.0	mg/L			CH6	09/18/23	1431	2493150	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493472
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	09/25/23	1225	2497683

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-FD-01 Project: GPCC00105
Sample ID: 637268007 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
The following Analytical Methods were performed:												
Method	Description		Analyst Comments									
1	EPA 300.0											
2	SW846 7470A											
3	SW846 3005A/6020B											
4	SW846 3005A/6020B											
5	SW846 3005A/6020B											
6	SM 2540C											

Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-FB-1	Project: GPCC00105
Sample ID: 637268008	Client ID: GPCC001
Matrix: WQ	
Collect Date: 12-SEP-23 15:35	
Receive Date: 15-SEP-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride	J	0.197	0.0670	0.200	mg/L		1	JLD1	09/16/23	0003	2493495	1
Fluoride	U	ND	0.0330	4.00	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/26/23	1208	2497685	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1	BAJ	09/28/23	1423	2493473	3
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/28/23	1110	2493473	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	RM4	09/29/23	1326	2493473	5
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	09/18/23	1431	2493150	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	09/25/23	1225	2497683
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493472

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-FB-1 Project: GPCC00105
Sample ID: 637268008 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
The following Analytical Methods were performed:												
Method	Description		Analyst Comments									
1	EPA 300.0											
2	SW846 7470A											
3	SW846 3005A/6020B											
4	SW846 3005A/6020B											
5	SW846 3005A/6020B											
6	SM 2540C											

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-02	Project: GPCC00105
Sample ID: 637268009	Client ID: GPCC001
Matrix: WG	
Collect Date: 14-SEP-23 11:40	
Receive Date: 15-SEP-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	0.0330	4.00	mg/L		1	JLD1	09/16/23	0034	2493495	1
Chloride		21.1	0.335	1.00	mg/L		5	JLD1	09/16/23	1721	2493495	2
Sulfate		28.8	0.665	2.00	mg/L		5					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/26/23	1210	2497685	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1	BAJ	09/28/23	1424	2493473	4
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/28/23	1112	2493473	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0750	0.000670	0.00400	mg/L	1.00	1					
Boron		0.102	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		6.64	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron		1.01	0.0330	0.100	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	RM4	09/29/23	1328	2493473	6
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		76.0	2.38	10.0	mg/L			CH6	09/18/23	1431	2493150	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	09/25/23	1225	2497683
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493472

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-02 Project: GPCC00105
Sample ID: 637268009 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
The following Analytical Methods were performed:											
Method	Description	Analyst Comments									
1	EPA 300.0										
2	EPA 300.0										
3	SW846 7470A										
4	SW846 3005A/6020B										
5	SW846 3005A/6020B										
6	SW846 3005A/6020B										
7	SM 2540C										

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-06	Project: GPCC00105
Sample ID: 637268010	Client ID: GPCC001
Matrix: WG	
Collect Date: 14-SEP-23 14:32	
Receive Date: 15-SEP-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	J	0.246	0.165	4.00	mg/L		5	JLD1	09/16/23	0106	2493495	1
Chloride		2220	26.8	80.0	mg/L		400	JLD1	09/16/23	1752	2493495	2
Sulfate		263	53.2	160	mg/L		400					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/26/23	1212	2497685	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1	BAJ	09/28/23	1426	2493473	4
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	RM4	09/29/23	1330	2493473	5
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/28/23	1225	2493473	6
Arsenic		0.0653	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0456	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0513	0.0330	0.100	mg/L	1.00	1					
Lithium		0.0551	0.00300	0.0100	mg/L	1.00	1					
Manganese		0.0851	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	J	0.000839	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		0.807	0.0520	0.150	mg/L	1.00	10	BAJ	09/28/23	1158	2493473	7
Calcium		83.1	0.800	2.00	mg/L	1.00	10					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		4240	23.8	100	mg/L			CH6	09/18/23	1431	2493150	8
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	09/18/23	1642	2493989	9

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493472

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Certificate of Analysis

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Company : Georgia Power Company
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Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-06 Project: GPCC00105
Sample ID: 637268010 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 7470A Prep	EPA 7470A	Mercury Prep Liquid		EK1	09/25/23		1225		2497683		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	EPA 300.0		
2	EPA 300.0		
3	SW846 7470A		
4	SW846 3005A/6020B		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SW846 3005A/6020B		
8	SM 2540C		
9	SM 4500-S (2-) D		

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-18 Project: GPCC00105
Sample ID: 637268011 Client ID: GPCC001
Matrix: WG
Collect Date: 14-SEP-23 10:02
Receive Date: 15-SEP-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	J	0.251	0.165	4.00	mg/L		5	JLD1	09/16/23	0137	2493495	1
Chloride		1190	13.4	40.0	mg/L		200	JLD1	09/16/23	1927	2493495	2
Sulfate		165	26.6	80.0	mg/L		200					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/21/23	1040	2495053	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		0.229	0.0260	0.0750	mg/L	1.00	5	BAJ	09/28/23	1201	2493473	4
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1	BAJ	09/28/23	1427	2493473	5
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/28/23	1227	2493473	6
Arsenic	J	0.00374	0.00200	0.00500	mg/L	1.00	1					
Barium		0.127	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		21.1	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron		31.1	0.0330	0.100	mg/L	1.00	1					
Lithium	J	0.00366	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium		0.00948	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium		0.00267	0.000200	0.000500	mg/L	1.00	1	RM4	09/29/23	1332	2493473	7
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		2040	23.8	100	mg/L			CH6	09/18/23	1431	2493150	8

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493472
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	09/20/23	1105	2495052

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-18 Project: GPCC00105
Sample ID: 637268011 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
The following Analytical Methods were performed:											
Method	Description	Analyst Comments									
1	EPA 300.0										
2	EPA 300.0										
3	SW846 7470A										
4	SW846 3005A/6020B										
5	SW846 3005A/6020B										
6	SW846 3005A/6020B										
7	SW846 3005A/6020B										
8	SM 2540C										

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-DPZ-02	Project: GPCC00105
Sample ID: 637268012	Client ID: GPCC001
Matrix: WG	
Collect Date: 14-SEP-23 10:18	
Receive Date: 15-SEP-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	0.660	4.00	mg/L		20	JLD1	09/16/23	1958	2493495	1
Chloride		5380	67.0	200	mg/L		1000	JLD1	09/16/23	2029	2493495	2
Sulfate		767	133	400	mg/L		1000					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/21/23	1042	2495053	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	RM4	09/29/23	1334	2493473	4
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1	BAJ	09/28/23	1229	2493473	5
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lithium		0.0870	0.00300	0.0100	mg/L	1.00	1					
Manganese		0.188	0.00100	0.00500	mg/L	1.00	1					
Boron		1.61	0.104	0.300	mg/L	1.00	20	BAJ	09/28/23	1205	2493473	6
Calcium		158	1.60	4.00	mg/L	1.00	20					
Antimony	U	ND	0.00500	0.0150	mg/L	1.00	5	BAJ	09/28/23	1203	2493473	7
Arsenic		0.0254	0.0100	0.0250	mg/L	1.00	5					
Barium		0.0583	0.00335	0.0200	mg/L	1.00	5					
Cadmium	U	ND	0.00150	0.00500	mg/L	1.00	5					
Molybdenum	U	ND	0.00100	0.00500	mg/L	1.00	5					
Selenium	U	ND	0.00750	0.0250	mg/L	1.00	5					
Thallium	U	ND	0.00300	0.0100	mg/L	1.00	5					
Lead	U	ND	0.00250	0.0100	mg/L	1.00	5	BAJ	09/28/23	1437	2493473	8
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		10600	23.8	100	mg/L			CH6	09/18/23	1431	2493150	9
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	09/18/23	1644	2493989	10

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493472

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-DPZ-02 Project: GPCC00105
Sample ID: 637268012 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 7470A Prep	EPA 7470A	Mercury Prep Liquid		EK1	09/20/23		1105		2495052		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	EPA 300.0		
2	EPA 300.0		
3	SW846 7470A		
4	SW846 3005A/6020B		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SW846 3005A/6020B		
8	SW846 3005A/6020B		
9	SM 2540C		
10	SM 4500-S (2-) D		

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-PT-01	Project: GPCC00105
Sample ID: 637268013	Client ID: GPCC001
Matrix: WG	
Collect Date: 14-SEP-23 14:26	
Receive Date: 15-SEP-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		1750	26.8	80.0	mg/L		400	JLD1	09/16/23	2101	2493495	1
Sulfate		205	53.2	160	mg/L		400					
Fluoride	J	0.188	0.165	4.00	mg/L		5	JLD1	09/16/23	0240	2493495	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic		0.0147	0.00200	0.00500	mg/L	1.00	1	BAJ	09/28/23	1114	2493473	3
Iron	J	0.0782	0.0330	0.100	mg/L	1.00	1					
Manganese		0.0887	0.00100	0.00500	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		3330	23.8	100	mg/L			CH6	09/18/23	1431	2493150	4
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	09/18/23	1644	2493989	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493472

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 3005A/6020B	
4	SM 2540C	
5	SM 4500-S (2-) D	

Notes:

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-PT-01 Project: GPCC00105
Sample ID: 637268013 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-PT-02	Project: GPCC00105
Sample ID: 637268014	Client ID: GPCC001
Matrix: WG	
Collect Date: 14-SEP-23 16:06	
Receive Date: 15-SEP-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		164	6.65	20.0	mg/L		50	JLD1	09/16/23	2306	2493495	1
Chloride		1660	26.8	80.0	mg/L		400	JLD1	09/16/23	2235	2493495	2
Fluoride	U	ND	0.165	4.00	mg/L		5	JLD1	09/16/23	0414	2493495	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic		0.0171	0.00200	0.00500	mg/L	1.00	1	BAJ	09/28/23	1116	2493473	4
Iron		0.116	0.0330	0.100	mg/L	1.00	1					
Manganese		0.0759	0.00100	0.00500	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		3390	23.8	100	mg/L			CH6	09/18/23	1431	2493150	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	09/18/23	1644	2493989	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493472

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 3005A/6020B	
5	SM 2540C	
6	SM 4500-S (2-) D	

Notes:

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID:	MCM-PT-02	Project:	GPCC00105
Sample ID:	637268014	Client ID:	GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-PT-03	Project: GPCC00105
Sample ID: 637268015	Client ID: GPCC001
Matrix: WG	
Collect Date: 14-SEP-23 10:30	
Receive Date: 15-SEP-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	J	0.238	0.165	4.00	mg/L		5	JLD1	09/16/23	0548	2493495	1
Chloride		2240	26.8	80.0	mg/L		400	JLD1	09/16/23	2338	2493495	2
Sulfate		242	53.2	160	mg/L		400					
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic		0.134	0.00200	0.00500	mg/L	1.00	1	BAJ	09/28/23	1119	2493473	3
Iron		0.164	0.0330	0.100	mg/L	1.00	1					
Manganese		0.0768	0.00100	0.00500	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		4270	23.8	100	mg/L			CH6	09/18/23	1431	2493150	4
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	09/18/23	1645	2493989	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493472

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 3005A/6020B	
4	SM 2540C	
5	SM 4500-S (2-) D	

Notes:

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID:	MCM-PT-03	Project:	GPCC00105
Sample ID:	637268015	Client ID:	GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-PT-04D Project: GPCC00105
Sample ID: 637268016 Client ID: GPCC001
Matrix: WG
Collect Date: 14-SEP-23 11:49
Receive Date: 15-SEP-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	0.330	4.00	mg/L		10	JLD1	09/17/23	0009	2493495	1
Chloride		4010	33.5	100	mg/L		500	JLD1	09/17/23	0143	2493495	2
Sulfate		537	66.5	200	mg/L		500					
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic		0.0228	0.00200	0.00500	mg/L	1.00	1	BAJ	09/28/23	1231	2493473	3
Manganese		0.121	0.00100	0.00500	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1	BAJ	09/27/23	0116	2493473	4
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		7990	23.8	100	mg/L			CH6	09/18/23	1431	2493150	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	09/18/23	1645	2493989	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493472

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SM 2540C	
6	SM 4500-S (2-) D	

Notes:

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID:	MCM-PT-04D	Project:	GPCC00105
Sample ID:	637268016	Client ID:	GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-DR-01	Project: GPCC00105
Sample ID: 637268017	Client ID: GPCC001
Matrix: WG	
Collect Date: 14-SEP-23 16:10	
Receive Date: 15-SEP-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		1850	26.8	80.0	mg/L		400	JLD1	09/17/23	0215	2493495	1
Sulfate		202	6.65	20.0	mg/L		50	JLD1	09/17/23	0246	2493495	2
Fluoride	J	0.249	0.165	4.00	mg/L		5	JLD1	09/16/23	0651	2493495	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic		0.0272	0.00200	0.00500	mg/L	1.00	1	BAJ	09/28/23	1121	2493473	4
Iron		0.341	0.0330	0.100	mg/L	1.00	1					
Manganese		0.0663	0.00100	0.00500	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		3510	23.8	100	mg/L			CH6	09/18/23	1431	2493150	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	09/18/23	1646	2493989	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493472

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 3005A/6020B	
5	SM 2540C	
6	SM 4500-S (2-) D	

Notes:

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
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Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID:	MCM-DR-01	Project:	GPCC00105
Sample ID:	637268017	Client ID:	GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Report Date: October 6, 2023

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-DR-02	Project: GPCC00105
Sample ID: 637268018	Client ID: GPCC001
Matrix: WG	
Collect Date: 14-SEP-23 12:08	
Receive Date: 15-SEP-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		2530	26.8	80.0	mg/L		400	JLD1	09/17/23	0317	2493495	1
Sulfate		320	53.2	160	mg/L		400					
Fluoride	U	ND	0.330	4.00	mg/L		10	JLD1	09/16/23	0722	2493495	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic		0.0362	0.00200	0.00500	mg/L	1.00	1	BAJ	09/28/23	1123	2493473	3
Iron		0.354	0.0330	0.100	mg/L	1.00	1					
Manganese		0.0758	0.00100	0.00500	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		4740	23.8	100	mg/L			CH6	09/18/23	1431	2493150	4
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	09/18/23	1646	2493989	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493472

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 3005A/6020B	
4	SM 2540C	
5	SM 4500-S (2-) D	

Notes:

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Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID:	MCM-DR-02	Project:	GPCC00105
Sample ID:	637268018	Client ID:	GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-FD-03	Project: GPCC00105
Sample ID: 637268019	Client ID: GPCC001
Matrix: WG	
Collect Date: 14-SEP-23 12:00	
Receive Date: 15-SEP-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		163	5.32	16.0	mg/L		40	JLD1	09/16/23	0754	2493495	1
Fluoride	J	0.283	0.165	4.00	mg/L		5	JLD1	09/17/23	0349	2493495	2
Chloride		1050	13.4	40.0	mg/L		200	JLD1	09/17/23	0420	2493495	3
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/21/23	1046	2495053	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		0.237	0.0260	0.0750	mg/L	1.00	5	BAJ	09/28/23	1210	2493473	5
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/28/23	1234	2493473	6
Arsenic	J	0.00387	0.00200	0.00500	mg/L	1.00	1					
Barium		0.123	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		20.8	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron		30.9	0.0330	0.100	mg/L	1.00	1					
Lithium	J	0.00369	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium		0.00870	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium		0.00266	0.000200	0.000500	mg/L	1.00	1	RM4	09/29/23	1336	2493473	7
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1	BAJ	09/28/23	1429	2493473	8
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		2220	23.8	100	mg/L			CH6	09/18/23	1431	2493150	9

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493472
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	09/20/23	1105	2495052

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-FD-03 Project: GPCC00105
Sample ID: 637268019 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
The following Analytical Methods were performed:											
Method	Description	Analyst Comments									
1	EPA 300.0										
2	EPA 300.0										
3	EPA 300.0										
4	SW846 7470A										
5	SW846 3005A/6020B										
6	SW846 3005A/6020B										
7	SW846 3005A/6020B										
8	SW846 3005A/6020B										
9	SM 2540C										

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-FB-03 Project: GPCC00105
Sample ID: 637268020 Client ID: GPCC001
Matrix: WQ
Collect Date: 14-SEP-23 13:48
Receive Date: 15-SEP-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride	U	ND	0.0670	0.200	mg/L		1	JLD1	09/17/23	0451	2493495	1
Fluoride	U	ND	0.0330	4.00	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/21/23	1048	2495053	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1	BAJ	09/28/23	1431	2493473	3
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	RM4	09/29/23	1338	2493473	4
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/28/23	1322	2493473	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1	BAJ	09/27/23	0127	2493473	6
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	09/18/23	1431	2493150	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	09/20/23	1105	2495052
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493472

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-FB-03 Project: GPCC00105
Sample ID: 637268020 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
The following Analytical Methods were performed:											
Method	Description	Analyst Comments									
1	EPA 300.0										
2	SW846 7470A										
3	SW846 3005A/6020B										
4	SW846 3005A/6020B										
5	SW846 3005A/6020B										
6	SW846 3005A/6020B										
7	SM 2540C										

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-EB-02 Project: GPCC00105
Sample ID: 637268021 Client ID: GPCC001
Matrix: WQ
Collect Date: 14-SEP-23 13:54
Receive Date: 15-SEP-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		0.428	0.0670	0.200	mg/L		1	LXA2	09/16/23	1610	2493502	1
Fluoride	J	0.126	0.0330	4.00	mg/L		1					
Sulfate	J	0.208	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/21/23	1050	2495053	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/28/23	0636	2493477	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	09/18/23	1334	2493155	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493475
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	09/20/23	1105	2495052

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-EB-02 Project: GPCC00105
Sample ID: 637268021 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
The following Analytical Methods were performed:											
Method	Description		Analyst Comments								
1	EPA 300.0										
2	SW846 7470A										
3	SW846 3005A/6020B										
4	SM 2540C										

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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Report Date: October 6, 2023

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-04	Project: GPCC00105
Sample ID: 637268022	Client ID: GPCC001
Matrix: WG	
Collect Date: 13-SEP-23 16:45	
Receive Date: 15-SEP-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		10.4	0.670	2.00	mg/L		10	LXA2	09/16/23	1641	2493502	1
Sulfate		27.1	1.33	4.00	mg/L		10					
Fluoride	J	0.0941	0.0330	4.00	mg/L		1	LXA2	09/18/23	1349	2493502	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/21/23	1051	2495053	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/28/23	0640	2493477	4
Arsenic		0.00601	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0358	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron		0.0470	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		4.93	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00341	0.000300	0.00100	mg/L	1.00	1					
Iron		1.83	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		51.0	2.38	10.0	mg/L			CH6	09/18/23	1334	2493155	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493475
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	09/20/23	1105	2495052

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-04 Project: GPCC00105
Sample ID: 637268022 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
The following Analytical Methods were performed:											
Method	Description	Analyst Comments									
1	EPA 300.0										
2	EPA 300.0										
3	SW846 7470A										
4	SW846 3005A/6020B										
5	SM 2540C										

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-07 Project: GPCC00105
Sample ID: 637268023 Client ID: GPCC001
Matrix: WG
Collect Date: 13-SEP-23 13:58
Receive Date: 15-SEP-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		3690	67.0	200	mg/L		1000	LXA2	09/18/23	1521	2493502	1
Sulfate		620	133	400	mg/L		1000					
Fluoride	J	0.982	0.330	4.00	mg/L		10	LXA2	09/16/23	1814	2493502	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/21/23	1053	2495053	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/28/23	0705	2493477	4
Arsenic		0.0117	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0745	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron		0.276	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0270	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000847	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		1.21	0.0520	0.150	mg/L	1.00	10	PRB	09/28/23	1137	2493477	5
Calcium		136	0.800	2.00	mg/L	1.00	10					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		7440	23.8	100	mg/L			CH6	09/18/23	1334	2493155	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	09/20/23	1105	2495052
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493475

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-07 Project: GPCC00105
Sample ID: 637268023 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
The following Analytical Methods were performed:												
Method	Description		Analyst Comments									
1	EPA 300.0											
2	EPA 300.0											
3	SW846 7470A											
4	SW846 3005A/6020B											
5	SW846 3005A/6020B											
6	SM 2540C											

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-11 Project: GPCC00105
Sample ID: 637268024 Client ID: GPCC001
Matrix: WG
Collect Date: 13-SEP-23 13:45
Receive Date: 15-SEP-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	J	0.362	0.0330	4.00	mg/L		1	LXA2	09/16/23	1845	2493502	1
Chloride		98.5	1.34	4.00	mg/L		20	LXA2	09/18/23	1552	2493502	2
Sulfate		42.0	2.66	8.00	mg/L		20					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/21/23	1055	2495053	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/28/23	0708	2493477	4
Arsenic		0.0217	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0794	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron		0.0783	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		20.7	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron		9.54	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00978	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		274	2.38	10.0	mg/L			CH6	09/18/23	1334	2493155	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	09/20/23	1105	2495052
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493475

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-11 Project: GPCC00105
Sample ID: 637268024 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
The following Analytical Methods were performed:											
Method	Description	Analyst Comments									
1	EPA 300.0										
2	EPA 300.0										
3	SW846 7470A										
4	SW846 3005A/6020B										
5	SM 2540C										

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-17 Project: GPCC00105
Sample ID: 637268025 Client ID: GPCC001
Matrix: WG
Collect Date: 13-SEP-23 17:15
Receive Date: 15-SEP-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		300	6.65	20.0	mg/L		50	LXA2	09/16/23	1916	2493502	1
Chloride		2660	33.5	100	mg/L		500	LXA2	09/18/23	1654	2493502	2
Fluoride	J	1.46	0.330	4.00	mg/L		10	LXA2	09/18/23	1623	2493502	3
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/21/23	1056	2495053	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		1.97	0.104	0.300	mg/L	1.00	20	PRB	09/28/23	1139	2493477	5
Calcium		84.6	1.60	4.00	mg/L	1.00	20					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/28/23	0712	2493477	6
Arsenic	J	0.00283	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0706	0.000670	0.00400	mg/L	1.00	1					
Beryllium	J	0.000249	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	J	0.00608	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron		0.269	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0370	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000217	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		6310	23.8	100	mg/L			CH6	09/18/23	1334	2493155	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	09/20/23	1105	2495052
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493475

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-17 Project: GPCC00105
Sample ID: 637268025 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
The following Analytical Methods were performed:											
Method	Description	Analyst Comments									
1	EPA 300.0										
2	EPA 300.0										
3	EPA 300.0										
4	SW846 7470A										
5	SW846 3005A/6020B										
6	SW846 3005A/6020B										
7	SM 2540C										

Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-19	Project: GPCC00105
Sample ID: 637268026	Client ID: GPCC001
Matrix: WG	
Collect Date: 13-SEP-23 14:18	
Receive Date: 15-SEP-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		8600	67.0	200	mg/L		1000	LXA2	09/18/23	1755	2493502	1
Fluoride	U	ND	0.660	4.00	mg/L		20	LXA2	09/18/23	1724	2493502	2
Sulfate		1300	66.5	200	mg/L		500	LXA2	09/16/23	1946	2493502	3
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/21/23	1058	2495053	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/28/23	0716	2493477	5
Arsenic		0.0172	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0970	0.000670	0.00400	mg/L	1.00	1					
Beryllium		0.00707	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	J	0.00386	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0415	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium		0.0237	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		1.20	0.0520	0.150	mg/L	1.00	10	PRB	09/28/23	1141	2493477	6
Calcium		202	0.800	2.00	mg/L	1.00	10					
Iron		129	0.330	1.00	mg/L	1.00	10					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		15500	23.8	100	mg/L			CH6	09/18/23	1334	2493155	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493475
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	09/20/23	1105	2495052

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-19 Project: GPCC00105
Sample ID: 637268026 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
The following Analytical Methods were performed:											
Method	Description	Analyst Comments									
1	EPA 300.0										
2	EPA 300.0										
3	EPA 300.0										
4	SW846 7470A										
5	SW846 3005A/6020B										
6	SW846 3005A/6020B										
7	SM 2540C										

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-20 Project: GPCC00105
Sample ID: 637268027 Client ID: GPCC001
Matrix: WG
Collect Date: 13-SEP-23 16:20
Receive Date: 15-SEP-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		5250	67.0	200	mg/L		1000	LXA2	09/18/23	1959	2493502	1
Fluoride	J	3.98	0.660	4.00	mg/L		20	LXA2	09/18/23	1826	2493502	2
Sulfate		832	13.3	40.0	mg/L		100	LXA2	09/16/23	2119	2493502	3
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/21/23	1100	2495053	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		1.02	0.0520	0.150	mg/L	1.00	10	PRB	09/28/23	1143	2493477	5
Calcium		108	0.800	2.00	mg/L	1.00	10					
Iron		116	0.330	1.00	mg/L	1.00	10					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/28/23	0719	2493477	6
Arsenic		0.0182	0.00200	0.00500	mg/L	1.00	1					
Barium		0.101	0.000670	0.00400	mg/L	1.00	1					
Beryllium		0.0150	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	J	0.00673	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.0241	0.000300	0.00100	mg/L	1.00	1					
Lead	J	0.000678	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0493	0.00300	0.0100	mg/L	1.00	1					
Manganese		0.0611	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium		0.0182	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		10300	23.8	100	mg/L			CH6	09/18/23	1334	2493155	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493475
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	09/20/23	1105	2495052

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-20 Project: GPCC00105
Sample ID: 637268027 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
The following Analytical Methods were performed:											
Method	Description	Analyst Comments									
1	EPA 300.0										
2	EPA 300.0										
3	EPA 300.0										
4	SW846 7470A										
5	SW846 3005A/6020B										
6	SW846 3005A/6020B										
7	SM 2540C										

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-FD-02	Project: GPCC00105
Sample ID: 637268028	Client ID: GPCC001
Matrix: WG	
Collect Date: 13-SEP-23 12:00	
Receive Date: 15-SEP-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	0.0330	4.00	mg/L		1	LXA2	09/16/23	2150	2493502	1
Chloride		9.58	0.134	0.400	mg/L		2	LXA2	09/18/23	2030	2493502	2
Sulfate		23.9	0.266	0.800	mg/L		2					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/21/23	1101	2495053	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/28/23	0723	2493477	4
Arsenic		0.00655	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0367	0.000670	0.00400	mg/L	1.00	1					
Beryllium	J	0.000242	0.000200	0.000500	mg/L	1.00	1					
Boron		0.0628	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		5.02	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00330	0.000300	0.00100	mg/L	1.00	1					
Iron		1.87	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0138	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		54.0	2.38	10.0	mg/L			CH6	09/18/23	1334	2493155	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	09/20/23	1105	2495052
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493475

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-FD-02	Project: GPCC00105
Sample ID: 637268028	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 7470A	
4	SW846 3005A/6020B	
5	SM 2540C	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

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Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-FB-02 Project: GPCC00105
Sample ID: 637268029 Client ID: GPCC001
Matrix: WQ
Collect Date: 13-SEP-23 17:26
Receive Date: 15-SEP-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride	U	ND	0.0670	0.200	mg/L		1	LXA2	09/16/23	2221	2493502	1
Fluoride	U	ND	0.0330	4.00	mg/L		1					
Sulfate	J	0.202	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/21/23	1106	2495053	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/28/23	0726	2493477	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron	J	0.00655	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0543	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00869	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	09/18/23	1334	2493155	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	09/20/23	1105	2495052
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493475

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Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-FB-02	Project: GPCC00105
Sample ID: 637268029	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
<i>The following Analytical Methods were performed:</i>											
Method	Description										Analyst Comments
1	EPA 300.0										
2	SW846 7470A										
3	SW846 3005A/6020B										
4	SM 2540C										

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-EB-01	Project: GPCC00105
Sample ID: 637268030	Client ID: GPCC001
Matrix: WQ	
Collect Date: 13-SEP-23 17:38	
Receive Date: 15-SEP-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride	U	ND	0.0670	0.200	mg/L		1	LXA2	09/16/23	2252	2493502	1
Fluoride	U	ND	0.0330	4.00	mg/L		1					
Sulfate	J	0.213	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/21/23	1108	2495053	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/28/23	0730	2493477	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00607	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	09/20/23	1625	2495396	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	09/20/23	1105	2495052
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493475

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-EB-01 Project: GPCC00105
Sample ID: 637268030 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
The following Analytical Methods were performed:											
Method	Description		Analyst Comments								
1	EPA 300.0										
2	SW846 7470A										
3	SW846 3005A/6020B										
4	SM 2540C										

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-06 Project: GPCC00105
Sample ID: 637268032 Client ID: GPCC001
Matrix: WG
Collect Date: 14-SEP-23 14:32
Receive Date: 15-SEP-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe/Mn "As Received"												
Iron	J	0.0597	0.0330	0.100	mg/L	1.00	1	PRB	09/28/23	0744	2493477	1
Manganese		0.0848	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493475

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-DPZ-02 Project: GPCC00105
Sample ID: 637268033 Client ID: GPCC001
Matrix: WG
Collect Date: 14-SEP-23 10:18
Receive Date: 15-SEP-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe/Mn "As Received"												
Iron		0.132	0.0330	0.100	mg/L	1.00	1	PRB	09/28/23	0748	2493477	1
Manganese		0.197	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493475

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-PT-01 Project: GPCC00105
Sample ID: 637268034 Client ID: GPCC001
Matrix: WG
Collect Date: 14-SEP-23 14:26
Receive Date: 15-SEP-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe/Mn "As Received"												
Iron	J	0.0470	0.0330	0.100	mg/L	1.00	1	PRB	09/28/23	0752	2493477	1
Manganese		0.0867	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493475

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-PT-02 Project: GPCC00105
Sample ID: 637268035 Client ID: GPCC001
Matrix: WG
Collect Date: 14-SEP-23 16:06
Receive Date: 15-SEP-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe/Mn "As Received"												
Iron	J	0.0860	0.0330	0.100	mg/L	1.00	1	PRB	09/28/23	0755	2493477	1
Manganese		0.0768	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493475

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-PT-03 Project: GPCC00105
Sample ID: 637268036 Client ID: GPCC001
Matrix: WG
Collect Date: 14-SEP-23 10:30
Receive Date: 15-SEP-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe/Mn "As Received"												
Iron	J	0.0588	0.0330	0.100	mg/L	1.00	1	PRB	09/28/23	0759	2493477	1
Manganese		0.0737	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493475

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-PT-04D Project: GPCC00105
Sample ID: 637268037 Client ID: GPCC001
Matrix: WG
Collect Date: 14-SEP-23 11:49
Receive Date: 15-SEP-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe/Mn "As Received"												
Iron		0.113	0.0330	0.100	mg/L	1.00	1	PRB	09/28/23	0802	2493477	1
Manganese		0.133	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493475

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-DR-01 Project: GPCC00105
Sample ID: 637268038 Client ID: GPCC001
Matrix: WG
Collect Date: 14-SEP-23 16:10
Receive Date: 15-SEP-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe/Mn "As Received"												
Iron	J	0.0534	0.0330	0.100	mg/L	1.00	1	PRB	09/28/23	0806	2493477	1
Manganese		0.0632	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493475

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-DR-02 Project: GPCC00105
Sample ID: 637268039 Client ID: GPCC001
Matrix: WG
Collect Date: 14-SEP-23 12:08
Receive Date: 15-SEP-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe/Mn "As Received"												
Iron	J	0.0664	0.0330	0.100	mg/L	1.00	1	PRB	09/28/23	0810	2493477	1
Manganese		0.0764	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493475

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: October 6, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-20 Project: GPCC00105
Sample ID: 637268040 Client ID: GPCC001
Matrix: WG
Collect Date: 13-SEP-23 16:20
Receive Date: 15-SEP-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe/Mn "As Received"												
Manganese		0.0563	0.00100	0.00500	mg/L	1.00	1	PRB	09/28/23	0813	2493477	1
Iron		113	0.330	1.00	mg/L	1.00	10	PRB	09/28/23	0817	2493477	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	09/18/23	0750	2493475

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	
2	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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QC Summary

Report Date: October 6, 2023

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Georgia Power Company
 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia

Contact: Kristen Jurinko

Workorder: 637268

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2493495										
QC1205518812	637268001	DUP									
Chloride		10.7		10.8	mg/L	0.75		(0%-20%)	JLD1	09/16/23	13:41
Fluoride	U	ND	U	ND	mg/L	N/A				09/15/23	18:18
Sulfate		47.5		47.4	mg/L	0.228		(0%-20%)		09/16/23	13:41
QC1205518814	637268013	DUP									
Chloride		1750		1730	mg/L	0.867		(0%-20%)		09/16/23	21:32
Fluoride	J	0.188	J	0.189	mg/L	0.797	^	(+/-4.00)		09/16/23	03:11
Sulfate		205		206	mg/L	0.583	^	(+/-160)		09/16/23	21:32
QC1205518811	LCS										
Chloride	5.00			4.89	mg/L			97.8 (90%-110%)		09/15/23	17:15
Fluoride	2.50			2.27	mg/L			90.8 (90%-110%)			
Sulfate	10.0			10.0	mg/L			100 (90%-110%)			
QC1205518810	MB										
Chloride			U	ND	mg/L					09/15/23	16:44
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						

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QC Summary

Workorder: 637268

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch 2493495											
QC1205518813 637268001 PS											
Chloride	5.00		2.14	7.14	mg/L		100	(90%-110%)	JLD1	09/16/23	14:13
Fluoride	2.50	U	ND	2.25	mg/L		89.9*	(90%-110%)		09/15/23	18:49
Sulfate	10.0		9.51	19.9	mg/L		104	(90%-110%)		09/16/23	14:13
QC1205518815 637268013 PS											
Chloride	5.00		4.37	9.64	mg/L		106	(90%-110%)		09/16/23	22:04
Fluoride	2.50	J	0.0375	2.21	mg/L		86.9*	(90%-110%)		09/16/23	03:43
Sulfate	10.0		0.513	10.2	mg/L		96.9	(90%-110%)		09/16/23	22:04
Batch 2493502											
QC1205518822 637268022 DUP											
Chloride			10.4	10.4	mg/L	0.615		(0%-20%)	LXA2	09/16/23	17:12
Fluoride		J	0.0941	J 0.0917	mg/L	2.58	^	(+/-4.00)		09/18/23	14:19
Sulfate			27.1	27.3	mg/L	0.823		(0%-20%)		09/16/23	17:12
QC1205518824 637334004 DUP											
Chloride			13800	13800	mg/L	0.186		(0%-20%)		09/17/23	01:57
Fluoride		U	ND	J 2.40	mg/L	200				09/19/23	00:37
Sulfate			2620	2680	mg/L	2.05	^	(+/-800)		09/17/23	01:57
QC1205518821 LCS											
Chloride	5.00			4.68	mg/L		93.5	(90%-110%)		09/16/23	15:39
Fluoride	2.50			2.43	mg/L		97.4	(90%-110%)			

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QC Summary

Workorder: 637268

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2493502										
Sulfate	10.0			9.55	mg/L		95.5	(90%-110%)	LXA2	09/16/23	15:39
QC1205518820	MB										
Chloride			U	ND	mg/L					09/16/23	15:09
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205518823	637268022 PS										
Chloride	5.00	1.04		5.82	mg/L		95.6	(90%-110%)		09/16/23	17:43
Fluoride	2.50	J 0.0941		2.48	mg/L		95.3	(90%-110%)		09/18/23	14:50
Sulfate	10.0	2.71		12.0	mg/L		92.5	(90%-110%)		09/16/23	17:43
QC1205518825	637334004 PS										
Chloride	5.00	6.89		12.4	mg/L		110	(90%-110%)		09/17/23	03:29
Fluoride	2.50	U ND		2.38	mg/L		95.4	(90%-110%)		09/19/23	02:09
Sulfate	10.0	1.31		10.4	mg/L		90.6	(90%-110%)		09/17/23	03:29
Metals Analysis - ICPMS											
Batch	2493473										
QC1205518780	LCS										
Antimony	0.0500			0.0521	mg/L		104	(80%-120%)	BAJ	09/28/23	10:44
Arsenic	0.0500			0.0530	mg/L		106	(80%-120%)			
Barium	0.0500			0.0564	mg/L		113	(80%-120%)			

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QC Summary

Workorder: 637268

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2493473										
Beryllium	0.0500			0.0536	mg/L		107	(80%-120%)	RM4	09/29/23	12:56
Boron	0.100			0.119	mg/L		119	(80%-120%)	BAJ	09/28/23	10:44
Cadmium	0.0500			0.0526	mg/L		105	(80%-120%)			
Calcium	2.00			2.18	mg/L		109	(80%-120%)			
Chromium	0.0500			0.0532	mg/L		106	(80%-120%)			
Cobalt	0.0500			0.0530	mg/L		106	(80%-120%)			
Iron	2.00			2.13	mg/L		107	(80%-120%)			
Lead	0.0500			0.0533	mg/L		107	(80%-120%)		09/28/23	14:07
Lithium	0.0500			0.0576	mg/L		115	(80%-120%)		09/28/23	10:44
Manganese	0.0500			0.0531	mg/L		106	(80%-120%)			
Molybdenum	0.0500			0.0531	mg/L		106	(80%-120%)			
Selenium	0.0500			0.0536	mg/L		107	(80%-120%)			
Thallium	0.0500			0.0513	mg/L		103	(80%-120%)			
QC1205518779	MB										
Antimony			U	ND	mg/L					09/28/23	10:42
Arsenic			U	ND	mg/L						

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QC Summary

Workorder: 637268

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2493473										
Barium			U	ND	mg/L				BAJ	09/28/23	10:42
Beryllium			U	ND	mg/L				RM4	09/29/23	12:54
Boron			U	ND	mg/L				BAJ	09/28/23	10:42
Cadmium			U	ND	mg/L						
Calcium			U	ND	mg/L						
Chromium			U	ND	mg/L						
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L					09/28/23	14:06
Lithium			U	ND	mg/L					09/28/23	10:42
Manganese			U	ND	mg/L						
Molybdenum			U	ND	mg/L						
Selenium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205518781 637268001 MS											
Antimony	0.0500	U	ND	0.0528	mg/L		105	(75%-125%)		09/28/23	10:49

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QC Summary

Workorder: 637268

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2493473										
Arsenic	0.0500	0.00628		0.0574	mg/L		102	(75%-125%)	BAJ	09/28/23	10:49
Barium	0.0500	0.128		0.183	mg/L		110	(75%-125%)			
Beryllium	0.0500	J	0.000253	0.0527	mg/L		105	(75%-125%)	RM4	09/29/23	13:02
Boron	0.100	0.101		0.218	mg/L		117	(75%-125%)	BAJ	09/28/23	10:49
Cadmium	0.0500	U	ND	0.0530	mg/L		106	(75%-125%)			
Calcium	2.00	10.1		12.3	mg/L		N/A	(75%-125%)			
Chromium	0.0500	U	ND	0.0519	mg/L		103	(75%-125%)			
Cobalt	0.0500	U	ND	0.0522	mg/L		104	(75%-125%)			
Iron	2.00	2.54		4.70	mg/L		108	(75%-125%)			
Lead	0.0500	U	ND	0.0516	mg/L		103	(75%-125%)		09/28/23	14:10
Lithium	0.0500	U	ND	0.0567	mg/L		111	(75%-125%)		09/28/23	10:49
Manganese	0.0500	0.0374		0.0892	mg/L		104	(75%-125%)			
Molybdenum	0.0500	U	ND	0.0551	mg/L		110	(75%-125%)			
Selenium	0.0500	U	ND	0.0523	mg/L		104	(75%-125%)			
Thallium	0.0500	U	ND	0.0495	mg/L		98.9	(75%-125%)			

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QC Summary

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2493473										
QC1205518782	637268001	MSD									
Antimony	0.0500	U	ND	0.0522	mg/L	1.04	104	(0%-20%)	BAJ	09/28/23	10:51
Arsenic	0.0500		0.00628	0.0581	mg/L	1.23	104	(0%-20%)			
Barium	0.0500		0.128	0.184	mg/L	0.94	113	(0%-20%)			
Beryllium	0.0500	J	0.000253	0.0509	mg/L	3.38	101	(0%-20%)	RM4	09/29/23	13:04
Boron	0.100		0.101	0.209	mg/L	4.23	108	(0%-20%)	BAJ	09/28/23	10:51
Cadmium	0.0500	U	ND	0.0524	mg/L	0.99	105	(0%-20%)			
Calcium	2.00		10.1	12.7	mg/L	2.78	N/A	(0%-20%)			
Chromium	0.0500	U	ND	0.0515	mg/L	0.72	102	(0%-20%)			
Cobalt	0.0500	U	ND	0.0513	mg/L	1.8	102	(0%-20%)			
Iron	2.00		2.54	4.70	mg/L	0.0543	108	(0%-20%)			
Lead	0.0500	U	ND	0.0518	mg/L	0.404	103	(0%-20%)		09/28/23	14:11
Lithium	0.0500	U	ND	0.0549	mg/L	3.28	108	(0%-20%)		09/28/23	10:51
Manganese	0.0500		0.0374	0.0899	mg/L	0.753	105	(0%-20%)			
Molybdenum	0.0500	U	ND	0.0536	mg/L	2.72	107	(0%-20%)			
Selenium	0.0500	U	ND	0.0530	mg/L	1.38	106	(0%-20%)			

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2493473										
Thallium	0.0500	U	ND	0.0496	mg/L	0.297	99.2	(0%-20%)	BAJ	09/28/23	10:51
QC1205518783 637268001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/28/23	10:56
Arsenic			6.28	U	ND	ug/L	N/A	(0%-20%)			
Barium			128		25.6	ug/L	.258	(0%-20%)			
Beryllium		J	0.253	U	ND	ug/L	N/A	(0%-20%)	RM4	09/29/23	13:08
Boron			101		19.6	ug/L	3.22	(0%-20%)	BAJ	09/28/23	10:56
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Calcium			10100		2150	ug/L	6.06	(0%-20%)			
Chromium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Cobalt		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Iron			2540		547	ug/L	7.64	(0%-20%)			
Lead		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/28/23	14:12
Lithium		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/28/23	10:56
Manganese			37.4		7.93	ug/L	6.04	(0%-20%)			
Molybdenum		U	ND	U	ND	ug/L	N/A	(0%-20%)			

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QC Summary

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2493473										
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)	BAJ	09/28/23	10:56
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Batch	2493477										
QC1205518788	LCS										
Antimony	0.0500			0.0490	mg/L		98	(80%-120%)	PRB	09/28/23	06:32
Arsenic	0.0500			0.0470	mg/L		94	(80%-120%)			
Barium	0.0500			0.0517	mg/L		103	(80%-120%)			
Beryllium	0.0500			0.0511	mg/L		102	(80%-120%)			
Boron	0.100			0.100	mg/L		100	(80%-120%)			
Cadmium	0.0500			0.0509	mg/L		102	(80%-120%)			
Calcium	2.00			2.07	mg/L		104	(80%-120%)			
Chromium	0.0500			0.0499	mg/L		99.8	(80%-120%)			
Cobalt	0.0500			0.0489	mg/L		97.9	(80%-120%)			
Iron	2.00			1.95	mg/L		97.6	(80%-120%)			
Lead	0.0500			0.0491	mg/L		98.2	(80%-120%)			
Lithium	0.0500			0.0502	mg/L		100	(80%-120%)			
Manganese	0.0500			0.0494	mg/L		98.9	(80%-120%)			

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2493477										
Molybdenum	0.0500			0.0516	mg/L		103	(80%-120%)	PRB	09/28/23	06:32
Selenium	0.0500			0.0457	mg/L		91.4	(80%-120%)			
Thallium	0.0500			0.0473	mg/L		94.7	(80%-120%)			
QC1205518787	MB										
Antimony			U	ND	mg/L					09/28/23	06:29
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L						
Boron			U	ND	mg/L						
Cadmium			U	ND	mg/L						
Calcium			U	ND	mg/L						
Chromium			U	ND	mg/L						
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L						

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QC Summary

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2493477										
Manganese			U	ND	mg/L				PRB	09/28/23	06:29
Molybdenum			U	ND	mg/L						
Selenium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205518789	637268022	MS									
Antimony	0.0500	U	ND	0.0490	mg/L		97.5	(75%-125%)		09/28/23	08:28
Arsenic	0.0500		0.00601	0.0536	mg/L		95.1	(75%-125%)			
Barium	0.0500		0.0358	0.0872	mg/L		103	(75%-125%)			
Beryllium	0.0500	U	ND	0.0525	mg/L		105	(75%-125%)			
Boron	0.100		0.0470	0.151	mg/L		104	(75%-125%)			
Cadmium	0.0500	U	ND	0.0510	mg/L		102	(75%-125%)			
Calcium	2.00		4.93	7.05	mg/L		106	(75%-125%)			
Chromium	0.0500	U	ND	0.0508	mg/L		100	(75%-125%)			
Cobalt	0.0500		0.00341	0.0530	mg/L		99.2	(75%-125%)			
Iron	2.00		1.83	3.79	mg/L		98	(75%-125%)			
Lead	0.0500	U	ND	0.0495	mg/L		98.9	(75%-125%)			

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2493477										
Lithium	0.0500	U	ND	0.0572	mg/L		111	(75%-125%)	PRB	09/28/23	08:28
Manganese	0.0500		0.0274	0.0769	mg/L		98.9	(75%-125%)			
Molybdenum	0.0500	U	ND	0.0520	mg/L		104	(75%-125%)			
Selenium	0.0500	U	ND	0.0475	mg/L		94.4	(75%-125%)			
Thallium	0.0500	U	ND	0.0473	mg/L		94.7	(75%-125%)			
QC1205518790 637268022 MSD											
Antimony	0.0500	U	ND	0.0505	mg/L	3.11	101	(0%-20%)		09/28/23	06:47
Arsenic	0.0500		0.00601	0.0540	mg/L	0.744	95.9	(0%-20%)			
Barium	0.0500		0.0358	0.0907	mg/L	3.86	110	(0%-20%)			
Beryllium	0.0500	U	ND	0.0541	mg/L	2.91	108	(0%-20%)			
Boron	0.100		0.0470	0.157	mg/L	3.91	110	(0%-20%)			
Cadmium	0.0500	U	ND	0.0523	mg/L	2.47	105	(0%-20%)			
Calcium	2.00		4.93	7.39	mg/L	4.67	123	(0%-20%)			
Chromium	0.0500	U	ND	0.0527	mg/L	3.75	104	(0%-20%)			
Cobalt	0.0500		0.00341	0.0551	mg/L	3.86	103	(0%-20%)			
Iron	2.00		1.83	4.00	mg/L	5.49	109	(0%-20%)			

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2493477										
Lead	0.0500	U	ND	0.0511	mg/L	3.18	102	(0%-20%)	PRB	09/28/23	06:47
Lithium	0.0500	U	ND	0.0539	mg/L	5.97	104	(0%-20%)			
Manganese	0.0500		0.0274	0.0797	mg/L	3.58	105	(0%-20%)			
Molybdenum	0.0500	U	ND	0.0539	mg/L	3.54	108	(0%-20%)			
Selenium	0.0500	U	ND	0.0474	mg/L	0.143	94.3	(0%-20%)			
Thallium	0.0500	U	ND	0.0484	mg/L	2.27	96.8	(0%-20%)			
QC1205518791	637268022	SDILT									
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/28/23	06:54
Arsenic			6.01	U	ND	ug/L	N/A	(0%-20%)			
Barium			35.8		6.89	ug/L	3.7	(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Boron			47.0	J	10.4	ug/L	10.2	(0%-20%)			
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Calcium			4930		965	ug/L	2.07	(0%-20%)			
Chromium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Cobalt			3.41	J	0.734	ug/L	7.66	(0%-20%)			

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2493477										
Iron		1830		360	ug/L	1.46		(0%-20%)	PRB	09/28/23	06:54
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Lithium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Manganese		27.4		5.41	ug/L	1.28		(0%-20%)			
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Metals Analysis-Mercury											
Batch	2495053										
QC1205522132	637569019	DUP									
Mercury	U	ND	U	ND	mg/L	N/A			JP2	09/21/23	11:13
QC1205522131	LCS										
Mercury	0.00200			0.00196	mg/L		97.9	(80%-120%)		09/21/23	10:38
QC1205522130	MB										
Mercury			U	ND	mg/L					09/21/23	10:37
QC1205522133	637569019	MS									
Mercury	0.00200	U	ND	0.00236	mg/L		118	(75%-125%)		09/21/23	11:14
QC1205522134	637569019	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)		09/21/23	11:16

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch 2497685											
QC1205526605	638131021	DUP									
Mercury		U	ND	U	ND	mg/L	N/A		JP2	09/26/23	13:09
QC1205526601	LCS										
Mercury	0.00200				0.00197	mg/L	98.4	(80%-120%)		09/26/23	11:52
QC1205526600	MB										
Mercury			U		ND	mg/L				09/26/23	11:50
QC1205526606	638131021	MS									
Mercury	0.0200	U	ND		0.0193	mg/L	96.5	(75%-125%)		09/26/23	13:11
QC1205526607	638131021	SDILT									
Mercury		U	ND	U	ND	ug/L	N/A	(0%-10%)		09/26/23	13:13
Solids Analysis											
Batch 2493150											
QC1205518280	637268001	DUP									
Total Dissolved Solids			80.0		71.0	mg/L	11.9*	(0%-5%)	CH6	09/18/23	14:31
QC1205518281	637268011	DUP									
Total Dissolved Solids			2040		1880	mg/L	8.16*	(0%-5%)		09/18/23	14:31
QC1205518279	LCS										
Total Dissolved Solids	300				301	mg/L	100	(95%-105%)		09/18/23	14:31
QC1205518278	MB										
Total Dissolved Solids			U		ND	mg/L				09/18/23	14:31
Batch 2493155											
QC1205518294	636668001	DUP									
Total Dissolved Solids			194		191	mg/L	1.56	(0%-5%)	CH6	09/18/23	13:34

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Solids Analysis											
Batch	2493155										
QC1205518293	LCS										
Total Dissolved Solids	300			302	mg/L		101	(95%-105%)	CH6	09/18/23	13:34
QC1205518292	MB										
Total Dissolved Solids			U	ND	mg/L					09/18/23	13:34
<hr/>											
Batch	2495396										
QC1205522724	637040001	DUP									
Total Dissolved Solids		J	5.00	J	4.00	mg/L	22.2	^	(+/-10.0)	CH6	09/20/23 16:25
QC1205522723	LCS										
Total Dissolved Solids	300			303	mg/L		101	(95%-105%)		09/20/23	16:25
QC1205522722	MB										
Total Dissolved Solids			U	ND	mg/L					09/20/23	16:25
<hr/>											
Spectrometric Analysis											
Batch	2493989										
QC1205519848	LCS										
Total Sulfide	0.400			0.395	mg/L		98.7	(85%-115%)	JW2	09/18/23	16:42
QC1205519847	MB										
Total Sulfide			U	ND	mg/L					09/18/23	16:42
QC1205519849	637444028	PS									
Total Sulfide	0.400	U	ND	0.399	mg/L		99.7	(75%-125%)		09/18/23	16:50
QC1205519850	637444028	PSD									
Total Sulfide	0.400	U	ND	0.391	mg/L	1.96	97.8	(0%-15%)		09/18/23	16:50

Notes:

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
X											
X											
N											
H											
<											
>											
h											
R											
Z											
d											
^											
N/A											
ND											
E											
NJ											
E											
Q											
FB											
N1											
Y											
R											
B											
e											
J											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Technical Case Narrative
Georgia Power Company
SDG #: 637268**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

Analytical Procedure: GL-MA-E-014 REV# 36

Analytical Batch: 2493473

Preparation Method: SW846 3005A

Preparation Procedure: GL-MA-E-006 REV# 14

Preparation Batch: 2493472

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
637268001	MCM-MCM-01
637268002	MCM-MCM-05
637268003	MCM-MCM-12
637268004	MCM-MCM-14
637268005	MCM-MCM-15
637268006	MCM-MCM-16
637268007	MCM-AP1-FD-01
637268008	MCM-AP1-FB-1
637268009	MCM-MCM-02
637268010	MCM-MCM-06
637268011	MCM-MCM-18
637268012	MCM-DPZ-02
637268013	MCM-PT-01
637268014	MCM-PT-02
637268015	MCM-PT-03
637268016	MCM-PT-04D
637268017	MCM-DR-01
637268018	MCM-DR-02
637268019	MCM-AP1-FD-03
637268020	MCM-AP1-FB-03
1205518779	Method Blank (MB) ICP-MS
1205518780	Laboratory Control Sample (LCS)
1205518783	637268001(MCM-MCM-01L) Serial Dilution (SD)
1205518781	637268001(MCM-MCM-01S) Matrix Spike (MS)
1205518782	637268001(MCM-MCM-01SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

ICSA/ICSAB Statement

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Technical Information**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 637268002 (MCM-MCM-05), 637268003 (MCM-MCM-12), 637268004 (MCM-MCM-14), 637268010 (MCM-MCM-06), 637268011 (MCM-MCM-18), 637268012 (MCM-DPZ-02) and 637268019 (MCM-AP1-FD-03) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument. Per the SOP, sample 637268012 (MCM-DPZ-02) was diluted due to internal standard recoveries outside the acceptable control limits.

Analyte	637268						
	002	003	004	010	011	012	019
Antimony	1X	1X	1X	1X	1X	5X	1X
Arsenic	1X	1X	1X	1X	1X	5X	1X
Barium	1X	1X	1X	1X	1X	5X	1X
Boron	5X	20X	10X	10X	5X	20X	5X
Cadmium	1X	1X	1X	1X	1X	5X	1X
Calcium	5X	1X	10X	10X	1X	20X	1X
Lead	1X	1X	1X	1X	1X	5X	1X
Molybdenum	1X	1X	1X	1X	1X	5X	1X
Selenium	1X	1X	1X	1X	1X	5X	1X
Thallium	1X	1X	1X	1X	1X	5X	1X

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

Analytical Procedure: GL-MA-E-014 REV# 36

Analytical Batch: 2493477

Preparation Method: SW846 3005A

Preparation Procedure: GL-MA-E-006 REV# 14

Preparation Batch: 2493475

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
637268021	MCM-AP1-EB-02
637268022	MCM-MCM-04
637268023	MCM-MCM-07
637268024	MCM-MCM-11
637268025	MCM-MCM-17
637268026	MCM-MCM-19
637268027	MCM-MCM-20
637268028	MCM-AP1-FD-02

637268029	MCM-AP1-FB-02
637268030	MCM-AP1-EB-01
637268032	MCM-MCM-06
637268033	MCM-DPZ-02
637268034	MCM-PT-01
637268035	MCM-PT-02
637268036	MCM-PT-03
637268037	MCM-PT-04D
637268038	MCM-DR-01
637268039	MCM-DR-02
637268040	MCM-MCM-20
1205518787	Method Blank (MB)ICP-MS
1205518788	Laboratory Control Sample (LCS)
1205518791	637268022(MCM-MCM-04L) Serial Dilution (SD)
1205518789	637268022(MCM-MCM-04S) Matrix Spike (MS)
1205518790	637268022(MCM-MCM-04SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

CRDL/PQL Requirements

The CRDL standard recoveries for SW846 6020B met the advisory control limits with the exception of calcium. Client sample concentrations were less than the MDL or greater than two times the CRDL; therefore the data were not adversely affected. 637268021 (MCM-AP1-EB-02), 637268022 (MCM-MCM-04), 637268023 (MCM-MCM-07), 637268024 (MCM-MCM-11), 637268025 (MCM-MCM-17), 637268026 (MCM-MCM-19), 637268027 (MCM-MCM-20), 637268028 (MCM-AP1-FD-02), 637268029 (MCM-AP1-FB-02), 637268030 (MCM-AP1-EB-01) and 637268031 (PW).

ICSA/ICSAB Statement

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Technical Information

Sample Dilutions

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 637268023 (MCM-MCM-07), 637268025 (MCM-MCM-17), 637268026 (MCM-MCM-19), 637268027 (MCM-MCM-20) and 637268040 (MCM-MCM-20) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	637268				
	023	025	026	027	040
Boron	10X	20X	10X	10X	
Calcium	10X	20X	10X	10X	
Iron	1X	1X	10X	10X	10X

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7470A

Analytical Procedure: GL-MA-E-010 REV# 40

Analytical Batch: 2495053

Preparation Method: SW846 7470A Prep

Preparation Procedure: GL-MA-E-010 REV# 40

Preparation Batch: 2495052

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
637268011	MCM-MCM-18
637268012	MCM-DPZ-02
637268019	MCM-AP1-FD-03
637268020	MCM-AP1-FB-03
637268021	MCM-AP1-EB-02
637268022	MCM-MCM-04
637268023	MCM-MCM-07
637268024	MCM-MCM-11
637268025	MCM-MCM-17
637268026	MCM-MCM-19
637268027	MCM-MCM-20
637268028	MCM-AP1-FD-02
637268029	MCM-AP1-FB-02
637268030	MCM-AP1-EB-01
1205522130	Method Blank (MB)CVAA
1205522131	Laboratory Control Sample (LCS)
1205522134	637569019(NonSDGL) Serial Dilution (SD)
1205522132	637569019(NonSDGD) Sample Duplicate (DUP)
1205522133	637569019(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7470A

Analytical Procedure: GL-MA-E-010 REV# 40

Analytical Batch: 2497685

Preparation Method: SW846 7470A Prep

Preparation Procedure: GL-MA-E-010 REV# 40

Preparation Batch: 2497683

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
637268001	MCM-MCM-01
637268002	MCM-MCM-05
637268003	MCM-MCM-12
637268004	MCM-MCM-14
637268005	MCM-MCM-15
637268006	MCM-MCM-16
637268007	MCM-AP1-FD-01
637268008	MCM-AP1-FB-1
637268009	MCM-MCM-02
637268010	MCM-MCM-06
1205526600	Method Blank (MB)CVAA
1205526601	Laboratory Control Sample (LCS)
1205526607	638131021(NonSDGL) Serial Dilution (SD)
1205526605	638131021(NonSDGD) Sample Duplicate (DUP)
1205526606	638131021(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Preparation Information

The samples and associated matrix QC were prepared at a dilution due to limited sample volume. 1205526605 (Non SDG 638131021DUP), 1205526606 (Non SDG 638131021MS) and 1205526607 (Non SDG 638131021SDILT).

General Chemistry

Product: Ion Chromatography

Analytical Method: EPA 300.0

Analytical Procedure: GL-GC-E-086 REV# 33

Analytical Batch: 2493495

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
637268001	MCM-MCM-01
637268002	MCM-MCM-05
637268003	MCM-MCM-12
637268004	MCM-MCM-14
637268005	MCM-MCM-15
637268006	MCM-MCM-16
637268007	MCM-AP1-FD-01
637268008	MCM-AP1-FB-1
637268009	MCM-MCM-02

637268010	MCM-MCM-06
637268011	MCM-MCM-18
637268012	MCM-DPZ-02
637268013	MCM-PT-01
637268014	MCM-PT-02
637268015	MCM-PT-03
637268016	MCM-PT-04D
637268017	MCM-DR-01
637268018	MCM-DR-02
637268019	MCM-AP1-FD-03
637268020	MCM-AP1-FB-03
1205518810	Method Blank (MB)
1205518811	Laboratory Control Sample (LCS)
1205518812	637268001(MCM-MCM-01) Sample Duplicate (DUP)
1205518813	637268001(MCM-MCM-01) Post Spike (PS)
1205518814	637268013(MCM-PT-01) Sample Duplicate (DUP)
1205518815	637268013(MCM-PT-01) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

Analyte	Sample	Value
Fluoride	1205518813 (MCM-MCM-01PS)	89.9* (90%-110%)
	1205518815 (MCM-PT-01PS)	86.9* (90%-110%)

Technical Information

Sample Dilutions

The following samples 1205518812 (MCM-MCM-01DUP), 1205518813 (MCM-MCM-01PS), 1205518814 (MCM-PT-01DUP), 1205518815 (MCM-PT-01PS), 637268001 (MCM-MCM-01), 637268002 (MCM-MCM-05), 637268003 (MCM-MCM-12), 637268004 (MCM-MCM-14), 637268006 (MCM-MCM-16), 637268009 (MCM-MCM-02), 637268010 (MCM-MCM-06), 637268011 (MCM-MCM-18), 637268012 (MCM-DPZ-02), 637268013 (MCM-PT-01), 637268014 (MCM-PT-02), 637268015 (MCM-PT-03), 637268016 (MCM-PT-04D), 637268017 (MCM-DR-01), 637268018 (MCM-DR-02) and 637268019 (MCM-AP1-FD-03) were diluted because target analyte concentrations exceeded the calibration range. The following samples 637268012 (MCM-DPZ-02) and 637268016 (MCM-PT-04D) in this sample group were diluted due to matrix interference. Samples 1205518814 (MCM-PT-01DUP), 1205518815 (MCM-PT-01PS), 637268004 (MCM-MCM-14), 637268010 (MCM-MCM-06), 637268011 (MCM-MCM-18), 637268012 (MCM-DPZ-02), 637268013 (MCM-PT-01), 637268014 (MCM-PT-02), 637268015 (MCM-PT-03), 637268016 (MCM-PT-04D), 637268017 (MCM-DR-01), 637268018 (MCM-DR-02) and 637268019 (MCM-AP1-FD-03) were diluted to minimize matrix effects on instrument performance. Samples 1205518814 (MCM-PT-01DUP), 1205518815

(MCM-PT-01PS), 637268004 (MCM-MCM-14), 637268007 (MCM-AP1-FD-01), 637268010 (MCM-MCM-06), 637268011 (MCM-MCM-18), 637268012 (MCM-DPZ-02), 637268013 (MCM-PT-01), 637268014 (MCM-PT-02), 637268015 (MCM-PT-03), 637268016 (MCM-PT-04D), 637268017 (MCM-DR-01), 637268018 (MCM-DR-02) and 637268019 (MCM-AP1-FD-03) were diluted based on historical data. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	637268									
	001	002	003	004	006	009	010	011	012	013
Chloride	5X	200X	100X	200X	5X	5X	400X	200X	1000X	400X
Fluoride	1X	1X	1X	5X	1X	1X	5X	5X	20X	5X
Sulfate	5X	200X	1X	200X	5X	5X	400X	200X	1000X	400X

Analyte	637268					
	014	015	016	017	018	019
Chloride	400X	400X	500X	400X	400X	200X
Fluoride	5X	5X	10X	5X	10X	5X
Sulfate	50X	400X	500X	50X	400X	40X

Sample Re-analysis

Sample 637268020 (MCM-AP1-FB-03) was re-analyzed due to (its) proximity to an overrange sample. The results from the reanalysis are reported. Sample 637268020 (MCM-AP1-FB-03) was re-analyzed to verify the result.

Miscellaneous Information

Manual Integrations

Sample 637268012 (MCM-DPZ-02) was manually integrated to correctly position the baseline as set in the calibration standards.

Product: Ion Chromatography

Analytical Method: EPA 300.0

Analytical Procedure: GL-GC-E-086 REV# 33

Analytical Batch: 2493502

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
637268021	MCM-AP1-EB-02
637268022	MCM-MCM-04
637268023	MCM-MCM-07
637268024	MCM-MCM-11
637268025	MCM-MCM-17
637268026	MCM-MCM-19
637268027	MCM-MCM-20
637268028	MCM-AP1-FD-02
637268029	MCM-AP1-FB-02
637268030	MCM-AP1-EB-01
1205518820	Method Blank (MB)

1205518821	Laboratory Control Sample (LCS)
1205518822	637268022(MCM-MCM-04) Sample Duplicate (DUP)
1205518823	637268022(MCM-MCM-04) Post Spike (PS)
1205518824	637334004(MCM-T2-3HT) Sample Duplicate (DUP)
1205518825	637334004(MCM-T2-3HT) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Sample Dilutions

The following samples 1205518822 (MCM-MCM-04DUP), 1205518823 (MCM-MCM-04PS), 1205518824 (MCM-T2-3HTDUP), 1205518825 (MCM-T2-3HTPS), 637268022 (MCM-MCM-04), 637268023 (MCM-MCM-07), 637268024 (MCM-MCM-11), 637268025 (MCM-MCM-17), 637268026 (MCM-MCM-19), 637268027 (MCM-MCM-20), 637268028 (MCM-API-FD-02) and 637268031 (PW) were diluted because target analyte concentrations exceeded the calibration range. Samples 1205518824 (MCM-T2-3HTDUP), 1205518825 (MCM-T2-3HTPS), 637268023 (MCM-MCM-07), 637268025 (MCM-MCM-17), 637268026 (MCM-MCM-19) and 637268027 (MCM-MCM-20) were diluted to minimize matrix effects on instrument performance. Samples 1205518822 (MCM-MCM-04DUP), 1205518823 (MCM-MCM-04PS), 1205518824 (MCM-T2-3HTDUP), 1205518825 (MCM-T2-3HTPS), 637268022 (MCM-MCM-04), 637268023 (MCM-MCM-07), 637268025 (MCM-MCM-17), 637268026 (MCM-MCM-19) and 637268027 (MCM-MCM-20) were diluted based on historical data. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	637268						
	022	023	024	025	026	027	028
Chloride	10X	1000X	20X	500X	1000X	1000X	2X
Fluoride	1X	10X	1X	10X	20X	20X	1X
Sulfate	10X	1000X	20X	50X	500X	100X	2X

Product: Solids, Total Dissolved

Analytical Method: SM 2540C

Analytical Procedure: GL-GC-E-001 REV# 21

Analytical Batch: 2493150

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
637268001	MCM-MCM-01
637268002	MCM-MCM-05
637268003	MCM-MCM-12
637268004	MCM-MCM-14
637268005	MCM-MCM-15
637268006	MCM-MCM-16

637268007	MCM-AP1-FD-01
637268008	MCM-AP1-FB-1
637268009	MCM-MCM-02
637268010	MCM-MCM-06
637268011	MCM-MCM-18
637268012	MCM-DPZ-02
637268013	MCM-PT-01
637268014	MCM-PT-02
637268015	MCM-PT-03
637268016	MCM-PT-04D
637268017	MCM-DR-01
637268018	MCM-DR-02
637268019	MCM-AP1-FD-03
637268020	MCM-AP1-FB-03
1205518278	Method Blank (MB)
1205518279	Laboratory Control Sample (LCS)
1205518280	637268001(MCM-MCM-01) Sample Duplicate (DUP)
1205518281	637268011(MCM-MCM-18) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Duplicate Relative Percent Difference (RPD) Statement

The Relative Percent Difference (RPD) between the sample and duplicate falls outside of the established acceptance limits because of the heterogeneous matrix of the sample:

Analyte	Sample	Value
Total Dissolved Solids	1205518280 (MCM-MCM-01DUP)	11.9* (0%-5%)
	1205518281 (MCM-MCM-18DUP)	8.16* (0%-5%)

Miscellaneous Information

Additional Comments

A reduced aliquot was used due to matrix interference. 1205518281 (MCM-MCM-18DUP), 637268002 (MCM-MCM-05), 637268003 (MCM-MCM-12), 637268004 (MCM-MCM-14), 637268010 (MCM-MCM-06), 637268011 (MCM-MCM-18), 637268012 (MCM-DPZ-02), 637268013 (MCM-PT-01), 637268014 (MCM-PT-02), 637268015 (MCM-PT-03), 637268016 (MCM-PT-04D), 637268017 (MCM-DR-01), 637268018 (MCM-DR-02) and 637268019 (MCM-AP1-FD-03).

Product: Solids, Total Dissolved

Analytical Method: SM 2540C

Analytical Procedure: GL-GC-E-001 REV# 21

Analytical Batch: 2493155

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
637268021	MCM-AP1-EB-02
637268022	MCM-MCM-04
637268023	MCM-MCM-07
637268024	MCM-MCM-11
637268025	MCM-MCM-17
637268026	MCM-MCM-19
637268027	MCM-MCM-20
637268028	MCM-AP1-FD-02
637268029	MCM-AP1-FB-02
1205518292	Method Blank (MB)
1205518293	Laboratory Control Sample (LCS)
1205518294	636668001(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Miscellaneous Information

Additional Comments

A TDS meter was used to check the samples for interference prior to analysis. 637268023 (MCM-MCM-07), 637268025 (MCM-MCM-17), 637268026 (MCM-MCM-19) and 637268027 (MCM-MCM-20).

Product: Solids, Total Dissolved

Analytical Method: SM 2540C

Analytical Procedure: GL-GC-E-001 REV# 21

Analytical Batch: 2495396

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
637268030	MCM-AP1-EB-01
1205522722	Method Blank (MB)
1205522723	Laboratory Control Sample (LCS)
1205522724	637040001(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: Sulfide, Total

Analytical Method: SM 4500-S (2-) D

Analytical Procedure: GL-GC-E-052 REV# 13

Analytical Batch: 2493989

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
637268010	MCM-MCM-06
637268012	MCM-DPZ-02
637268013	MCM-PT-01
637268014	MCM-PT-02
637268015	MCM-PT-03
637268016	MCM-PT-04D
637268017	MCM-DR-01
637268018	MCM-DR-02
1205519847	Method Blank (MB)
1205519848	Laboratory Control Sample (LCS)
1205519849	637444028(NonSDG) Post Spike (PS)
1205519850	637444028(NonSDG) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Page 1 of 3
 Project # GPCC00105
 GEL Quote #: GELP22-0819
 Cell Number (1):
 PO Number:
 Client Name: Kristen Jurinko
 Phone #
 Fax #

GEL Laboratories, LLC
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

637305
 637268
Chain of Custody and Analytical Request
 GEL Project Manager: Erin Trent

GEL Work Order Number: **637268** Rev 1
 Client Name: Kristen Jurinko
 Phone #
 Fax #

Project/Site Name: Plant McManus CCR Groundwater Compliance Sept. 2023
 Address: 241 Ralph McGill Blvd. NE, Atlanta, GA 30308

Client Name: Kristen Jurinko
 Phone #
 Fax #
 Contacted By: William Laaker, Meredith Duncan, Kevin Stephenson (Resolute Environmental)
 Send Results To: knjurnk@southernco.com; trent.godwin@resoluteenv.com; kevin.stephenson@resoluteenv.com

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (a)	Field Filtered (b)	Sample Matrix (c)	Should this sample be considered:	Sample Analysis Requested (5) (Fill in the number of containers for each test)										Comments
						(7) Known or possible hazards	Total Metals (App III & IV)	TDS/Anions	Radium 226/228	Metals (As, Fe Only)	Total Mn	Dissolved Mn	Dissolved Fe	Sulfide	SH	Preservative Type (6)	
MCM-MCM-01			G	N	WG		5	X	X								Note: extra sample is required for sample specific QC
MCM-MCM-02	09-14-23	1140	G	N	WG		5	X	X								
MCM-MCM-04			G	N	WG		5	X	X								
MCM-MCM-05			G	N	WG		5	X	X								
MCM-MCM-06	09-14-23	1432	G	Y*	WG		7	X	X	X	X	X	X				
MCM-MCM-07			G	N	WG		5	X	X								
MCM-MCM-11			G	N	WG		5	X	X								
MCM-MCM-12			G	N	WG		5	X	X								
MCM-MCM-14			G	N	WG		5	X	X								
MCM-MCM-15			G	N	WG		5	X	X								

Chain of Custody Signatures

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
<i>[Signature]</i>	9/15/23	<i>[Signature]</i>	9/15/23	1036

TAT Requested: Yes No
 Rush: Yes No
 Specify: (Subject to Surcharge)
 Fax Results: Yes No
 Select Deliverable: C of A QC Summary Level 1 Level 2 Level 3 Level 4
 Additional Remarks: Task Code: MCM-CCR-ASSMT-2023S2
 For Lab Receiving Use Only: Custody Seal Intact? Yes No Cooler Temp: ___ °C
 Sample Collection Time Zone: Eastern Pacific Central Mountain Other:

1.) Chain of Custody Number = Client Determined
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
 4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B 7470A - 1).
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank
 7.) **KNOWN OR POSSIBLE HAZARDS**

RCRA Metals	Characteristic Hazards	Listed Waste	Other
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/Ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F, K, P and U-listed wastes.) Waste code(s):	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description:
Hg= Mercury Se= Selenium Ag= Silver MR= Misc. RCRA metals	TSCA Regulated PCB = Polychlorinated biphenyls		

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)
 Dissolved Fe, Mn are the only Field Filter Samples

GEL Laboratories, LLC
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

Client Name: Kristen Jurinko
 Phone # _____ Fax # _____
 Project/Site Name: Plant McManus CCR Groundwater Compliance Sept. 2023
 Address: 241 Ralph McGill Blvd. NE, Atlanta, GA 30308

Contacted By: William Laaker, Meredith Duncan, Kevin Stephenson (Resolute Environmental)
 Send Results To: knjurink@southernco.com; kevin.stephenson@resoluteenv.com; trent.godwin@resoluteenv.com

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (a)	Field Filtered (b)	Sample Matrix (c)	Should this sample be considered: (7) Known or possible hazards	Radioactive (if yes, please supply isotopic info)	Total number of containers	Total Metals (App III & IV)	TDS/Anions	Radium 226/228	Metals (As, Fe Only)	Total Mn	Dissolved Mn	Dissolved Fe	Sulfide	SH	Preservative Type (6)	Comments
MCM-MCM-16			G	N	WG			5	X	X	X							<- Preservative Type (6)	Note: extra sample is required for sample specific QC
MCM-MCM-17			G	N	WG			5	X	X	X								
MCM-MCM-18	09-14-23	1002	G	N	WG			5	X	X	X								
MCM-MCM-19			G	N	WG			5	X	X	X								
MCM-MCM-20			G	Y*	WG				X	X	X		X						
MCM-DPZ-02	09-14-23	1018	G	Y*	WG			7	X	X	X		X	X					
MCM-PT-01	09-14-23	1426	G	Y*	WG			4	X	X	X		X	X					
MCM-PT-02	09-14-23	1606	G	Y*	WG			4	X	X	X		X	X					
MCM-PT-03	09-14-23	1030	G	Y*	WG			4	X	X	X		X	X					
MCM-PT-04D	09-14-23	1149	G	Y*	WG			4	X	X	X		X	X					

Chain of Custody Signatures

Relinquished By (Signed) _____ Date _____ Time _____
 Received by (signed) _____ Date _____ Time _____
 1 *[Signature]* 9/15/23 1030
 2 *[Signature]*
 3 _____

TAT Requested: Normal: Rush: Specify: _____ (Subject to Surcharge)
 Fax Results: Yes No
 Select Deliverable: C of A QC Summary Level 1 Level 2 Level 3 Level 4
 Additional Remarks: Task Code: MCM-CCR-ASSMT-2023S2
 For Lab Receiving Use Only: Custody Seal Intact? Yes No Cooler Temp: _____ °C
 Sample Collection Time Zone: Eastern Pacific Central Mountain Other:

1) Chain of Custody Number = Client Determined
 2) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
 3) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
 4) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc. Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Faecal, N=Nasal
 5) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).
 6) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank
 7) **KNOWN OR POSSIBLE HAZARDS**
 Characteristic Hazards: _____
 Listed Waste: _____
 FL = Flammable/Ignitable
 LW = Listed Waste
 CO = Corrosive
 RE = Reactive
 (F, K, P and U-listed wastes.)
 Waste code(s): _____
 TSCA Regulated
 PCB = Polychlorinated biphenyls
 RCRA Metals
 As = Arsenic
 Hg = Mercury
 Ba = Barium
 Se = Selenium
 Cd = Cadmium
 Ag = Silver
 Cr = Chromium
 MR = Misc. RCRA metals
 Pb = Lead
 Other: _____
 OT = Other / Unknown
 (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
 Description: _____
 Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)
 Dissolved Fe, Mn are the only Field Filtered Samples

Client Name: Kristen Jurinko
 Project/Site Name: Plant McManus CCR Groundwater Compliance Sept. 2023
 Address: 241 Ralph McGill Blvd. NE, Atlanta, GA 30308
 Contacted By: William Laaker, Meredith Duncanson, Kevin
 Send Results To: kjurink@southernco.com, trent.godwin@resoluteenv.com, kevin.stephenson@resoluteenv.com

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (a)	Field Filtered (b)	Sample Matrix (c)	Should this sample be considered:		Sample Analysis Requested (6) (Fill in the number of containers for each test)										Preservative Type (6)	Comments
						(7) Known or Possible Hazards	Yes, please supply isotopic info)	NI	Total Metals (App III & IV)	TDS/Anions	Radium 226/228	Metals (As, Fe Only)	Total Mn	Dissolved Mn	Dissolved Fe	Sulfide	SH		
MCM-DR-01	09-14-23	1610	G	Y*	WG			4	X	X	X	X	X	X	X	X			Note: extra sample is required for sample specific QC
MCM-DR-02	09-14-23	1208	G	Y*	WG			4	X	X	X	X	X	X	X	X			
MCM-API-FD-01			FD		WG														
MCM-API-FD-02			FD		WG														
MCM-API-FD-03	09-14-23		FD	N	WG				X	X	X	X	X	X	X	X			
MCM-API-FB-03	09-14-23	1348	FB	N	WQ				X	X	X	X	X	X	X	X			
MCM-API-FB-NASZ			FB		WQ														
MCM-API-EB-02	09-14-23	1354	EB	N	WQ				X	X	X	X	X	X	X	X			
MCM-API-EB			EB		WQ														

Chain of Custody Signatures

Relinquished By (Signed) _____ Date _____ Time _____
 Received by (signed) _____ Date _____ Time _____

1. *[Signature]* 9/15/23 1030
 2. *[Signature]*
 3. *[Signature]*

TAT Requested: Normal: _____ Rush: _____ Specify: _____ (Subject to Surcharge)

Fax Results: Yes No

Select Deliverable: Level 1 Level 2 Level 3 Level 4

Additional Remarks: Task Code: MCM-CCR-ASSMT-2023S2

For Lab Receiving Use Only: Custody Seal Intact? Yes No Cooler Temp: 2 °C

Sample Collection Time Zone: Eastern Pacific Central Mountain Other:

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, ML=Misc. Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Faecal, N=Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B -3, 6010B/7470A - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

RCRA Metals: _____
 As = Arsenic
 Ba = Barium
 Cd = Cadmium
 Cr = Chromium
 Pb = Lead

Characteristic Hazards: _____
 FL = Flammable/Ignitable
 CO = Corrosive
 RE = Reactive

Listed Waste: _____
 LW = Listed Waste
 (F, K, P and U-listed wastes.)

Waste code(s): _____

TSCA Regulated: _____
 PCB = Polychlorinated biphenyls

Other: _____
 OT = Other / Unknown
 (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)

Description: _____

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

Dissolved Fe, Mn are the only Field Filtered Samples

GEL Laboratories, LLC
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

Client Name: Kristen Jurinko Phone #
 Project/Site Name: Plant McManus CCR Groundwater Compliance Sept. 2023 Fax #

Address: 241 Ralph McGill Blvd. NE, Atlanta, GA 30308
 Contacted By: William Laaker, Meredith Duncan, Kevin Send Results To: kajurnk@southernco.com; kevin.stephenson@resoluteenv.com, trent.godwin@resoluteenv.com

*For composites - indicate start and stop date/time
 Sample ID
 MCM-MCM-01
 MCM-MCM-02
 MCM-MCM-04
 MCM-MCM-05
 MCM-MCM-06
 MCM-MCM-07
 MCM-MCM-11
 MCM-MCM-12
 MCM-MCM-14
 MCM-MCM-15

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (a)	Field Filtered (b)	Sample Matrix (c)	Radioactive (If yes, please supply isotopic info)	(7) Known or Possible Hazards	Total number of containers	Total Metals (App III & IV)	TDS/Anions	Radium 226/228	Metals (As, Fe Only)	Total Mn	Dissolved Mn	Dissolved Fe	Sulfide	SH	Preservative Type (6)	Comments
MCM-MCM-01	09-12-23	1056	G	N	WG			5	X	X	X								Note: extra sample is required for sample specific QC
MCM-MCM-02			G	N	WG			5	X	X	X								
MCM-MCM-04			G	N	WG			5	X	X	X								
MCM-MCM-05	09-12-23	1430	G	N	WG			5	X	X	X								
MCM-MCM-06			G	Y*	WG			7	X	X	X								
MCM-MCM-07			G	N	WG			5	X	X	X								
MCM-MCM-11			G	N	WG			5	X	X	X								
MCM-MCM-12	09-12-23	1030	G	N	WG			5	X	X	X								
MCM-MCM-14	09-12-23	1305	G	N	WG			5	X	X	X								
MCM-MCM-15	09-12-23	1428	G	N	WG			5	X	X	X								

Relinquished By (Signed) Date Time Received by (signed) Date Time
 1 *William Laaker* 9/15/23 1030 1 *Erin Trent* 9/15/23 1056
 2 *Kevin Stephenson* 9/15/23 1305 2 *Erin Trent* 9/15/23 1428
 3 *Kevin Stephenson* 9/15/23 1428 3 *Erin Trent* 9/15/23 1428

Chain of Custody Signatures
 TAT Requested: Normal: Rush: Specify: (Subject to Surcharge)
 Fax Results: [] Yes [] No
 Select Deliverable: [] C of A [] QC Summary [] Level 1 [] Level 2 [] Level 3 [] Level 4
 Additional Remarks: Task Code: MCM-CCR-ASSMT-2023S2
 For Lab Receiving Use Only: Custody Seal Intact? [] Yes [] No Cooler Temp: °C
 Sample Collection Time Zone: [X] Eastern [] Pacific [] Central [] Mountain [] Other:
 For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

1) Chain of Custody Number = Client Determined
 2) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
 3) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
 4) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, ML=Misc. Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Faecal, N=Nasal
 5) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B -3, 6010B/7470A - 1)
 6) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank
 7) KNOWN OR POSSIBLE HAZARDS
 Characteristic Hazards: Listed Waste: Other
 FL = Flammable/Ignitable LW = Listed Waste OT = Other / Unknown
 CO = Corrosive (F, K, P and U-listed wastes.)
 RE = Reactive Waste code(s):
 TSCA Regulated
 PCB = Polychlorinated biphenyls
 RCRA Metals: Hg=Mercury
 As= Arsenic Se= Selenium
 Ba= Barium Ag= Silver
 Cd = Cadmium MIR= Misc. RCRA metals
 Cr = Chromium
 Pb = Lead
 Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)
 Dissolved Fe, Mn are the only Field Filtered Samples

Chain of Custody and Analytical Request
 GEL Project Manager: Erin Trent

Client Name: Kristen Jurinko
 Phone #: _____ Fax #: _____
 Project/Site Name: Plant McManus CCR Groundwater Compliance Sept. 2023
 Address: 241 Ralph McGill Blvd. NE, Atlanta, GA 30308
 Contacted By: William Laaker, Meredith Duncan, Kevin Stevenson
 Email: wlaaker@resoluteenv.com, mduncan@resoluteenv.com, kstevenson@resoluteenv.com

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (a)	Field Filtered (b)	Sample Matrix (c)	Should this sample be considered:		Total Metals (App III & IV)	TDS/Anions	Radium 226/228	Metals (As, Fe Only)	Total Mn	Dissolved Mn	Dissolved Fe	SH	Preservative Type (6)	Comments
						Yes, please supply isotopic info.	(7) Known or possible Hazards										
MCM-MCM-16	09-12-23	1302	G	N	WG			X	X	X							Note: extra sample is required for sample specific QC
MCM-MCM-17			G	N	WG			X	X	X							
MCM-MCM-18			G	N	WG			X	X	X							
MCM-MCM-19			G	N	WG			X	X	X							
MCM-MCM-20			G	Y*	WG			X	X	X							
MCM-DPZ-02			G	Y*	WG			X	X	X							
MCM-PT-01			G	Y*	WG			X	X	X							
MCM-PT-02			G	Y*	WG			X	X	X							
MCM-PT-03			G	Y*	WG			X	X	X							
MCM-PT-04D			G	Y*	WG			X	X	X							

Chain of Custody Signatures

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
<i>[Signature]</i>	9/15/23	<i>[Signature]</i>	1030	

TAT Requested: Normal: Rush: Specify: _____ (Subject to Surcharge)
 Fax Results: Yes No
 Select Deliverable: C of A QC Summary Level 1 Level 2 Level 3 Level 4
 Additional Remarks: Task Code: MCM-CCR-ASSMT-2023S2
 For Lab Receiving Use Only: Custody Seal Intact? Yes No Cooler Temp: _____ °C
 Sample Collection Time Zone: Eastern Pacific Central Mountain Other:

1.) Chain of Custody Number = Client Determined
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
 4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Faecal, N=Nasal
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, if no preservative is added = leave field blank
 7.) **KNOWN OR POSSIBLE HAZARDS**
 Characteristic Hazards: FL = Flammable/Ignitable, LW = Listed Waste, CO = Corrosive, RE = Reactive, TSCA Regulated, PCB = Polychlorinated biphenyls
 RCRA Metals: As = Arsenic, Hg = Mercury, Ba = Barium, Se = Selenium, Cd = Cadmium, Ag = Silver, Cr = Chromium, MR = Misc. RCRA metals
 Pb = Lead
 Other: OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
 Description: _____
 Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)
 Dissolved Fe, Mn are the only Field Filtered Samples

GEL Laboratories, LLC
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

GEL Work Order Number: **GEL Project Manager: Erin Trent**

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Sample Analysis Requested (5) (Fill in the number of containers for each test)										Comments				
						Total Metals (App III & IV)	TDS/Anions	Radium 226/228	Metals (As, Fe Only)	Total Mn	Dissolved Mn	Dissolved Fe	Sulfide	SH	NI		Preservative Type (6)			
MCM-DR-01			G	Y*	WG	4	X	X	X	X	X	X	X	X						
MCM-DR-02			G	Y*	WG	4	X	X	X	X	X	X	X	X						
MCM-API-FD-01			FD		WG															
MCM-API-FD-02	9/13/23		FD	N	WG	5	X	X	X											
MCM-API-FD-03			FD		WG															
MCM-API-FB-			FB		WQ															
MCM-API-FB-02	9/13/23	1726	FB	N	WQ	5	X	X	X											
MCM-API-EB-			EB		WQ															
MCM-API-EB-01	9/13/23	1738	EB	N	WQ	5	X	X	X											

Chain of Custody Signatures

Relinquished By (Signed) _____ Date _____ Time _____ Received by (signed) _____ Date _____ Time _____

1 *W. Laaker* 9/15/23 1030 *W. Laaker*

2 *W. Laaker*

3 *W. Laaker*

TAT Requested: Normal: Rush: Specify: _____ (Subject to Surcharge)

Fax Results: Yes No

Select Deliverable: C of A QC Summary Level 1 Level 2 Level 3 Level 4

Additional Remarks: **Task Code: MCM-CCR-ASSMT-2023S2**

For Lab Receiving Use Only: Custody Seal Intact? Yes No Cooler Temp: _____ °C

Sample Collection Time Zone: Eastern Pacific Central Mountain Other:

> For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

- Chain of Custody Number = Client Determined
- QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
- Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
- Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urme, F=Faecal, N=Nasal
- Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B 7470A - 1)
- Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank
- KNOWN OR POSSIBLE HAZARDS**

RCRA Metals	Characteristic Hazards	Listed Waste	Other
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F, K, P and U-listed wastes.) Waste code(s):	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description:
- TSCA Regulated**

PCB = Polychlorinated biphenyls

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

Dissolved Fe, Mn are the only Field Filtered Samples

Page 1 of 3
 Project # GPCC00105
 GEL Quote #: GELP22-0819
 Chain of Custody (1)
 Project Name: Plant McManus CCR Groundwater Compliance Sept. 2023
 Client Name: Kristen Jurinko
 Phone #
 Fax #

GEL Laboratories, LLC
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

Chain of Custody and Analytical Request
GEL Project Manager: Erin Trent

Sample Analysis Requested (6) (Fill in the number of containers for each test)

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (a)	Field Filtered (b)	Sample Matrix (d)	Should this sample be considered:		Total Metals (App III & IV) NI	TDS/Antions	Radium 226/228 NI	Metals (As, Fe Only) NI	Total Mn NI	Dissolved Mn NI	Dissolved Fe NI	Sulfide SH	Preservative Type (6)	Comments
						Radioactive (f) yes, please supply isotopic info)	(7) Known or Possible Hazards										
MCM-MCM-01			G	N	WG					X							Note: extra sample is required for sample specific QC
MCM-MCM-02			G	N	WG					X							
MCM-MCM-04	9/13/23	1645	G	N	WG					X							
MCM-MCM-05			G	N	WG					X							
MCM-MCM-06			G	Y*	WG					X				X			
MCM-MCM-07	9/13/23	1358	G	N	WG					X							
MCM-MCM-11	9/13/23	1345	G	N	WG					X							
MCM-MCM-12			G	N	WG					X							
MCM-MCM-14			G	N	WG					X							
MCM-MCM-15			G	N	WG					X							

Chain of Custody Signatures

Relinquished By (Signed) _____ Date _____ Time _____ Received by (signed) _____ Date _____ Time _____

1. *[Signature]* 9/15/23 1030 *[Signature]* 9/15/23 1030

2. *[Signature]*

3. *[Signature]*

TAT Requested: Normal: Rush: Specify: _____ (Subject to Surcharge)

For Lab Receiving Use Only: Custody Seal Intact? Yes No Cooler Temp: _____ °C

Sample Collection Time Zone: Eastern Pacific Central Mountain Other: _____

Additional Remarks: Task Code: MCM-CCR-ASSMT-2023S2

For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

1) Chain of Custody Number = Client Determined

2) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered

4) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal

5) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

7) KNOWN OR POSSIBLE HAZARDS

RCRA Metals	Characteristic Hazards	Listed Waste	Other
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/Ignitable CO = Corrosive RE = Reactive TSCA Regulated PCB = Polychlorinated biphenyls	LW = Listed Waste (F, K, P and U-listed wastes) Waste code(s): _____	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

* Dissolved Fe, Mn are the only Field Filtered Samples *

Chain of Custody and Analytical Request
 GEL Project Manager: Erin Trent

Client Name: Kristen Jurinko Phone # _____ Fax # _____		Sample Analysis Requested (5) (Fill in the number of containers for each test)	
Project/Site Name: Plant McManus CCR Groundwater Compliance Sept. 2023		SH	
Address: 241 Ralph McGill Blvd. NE, Atlanta, GA 30308		NI	
Contacted By: William Laaker, Meredith Duncan, Kevin Stephenson (Resolute Environmental)		NI	
Send Results To: knjurink@southernco.com; kevin.stephenson@resoluteenv.com; trent.godwin@resoluteenv.com		NI	
Sample ID * For composites - indicate start and stop date/time	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	Total number of containers
	*QC Code (a)	*Field Filtered (b)	
MCM-MCM-16			5
MCM-MCM-17	9/13/23	1715	5
MCM-MCM-18			5
MCM-MCM-19	9/13/23	1418	5
MCM-MCM-20	9/13/23	1620	6
MCM-DPZ-02			7
MCM-PT-01			4
MCM-PT-02			4
MCM-PT-03			4
MCM-PT-04D			4

Should this sample be considered:	Radioactive (If yes, please supply isotopic info)	Total Metals (App III & IV)		TDS/Anions	Radium 226/228	Metals (As, Fe Only)	Total Mn	Dissolved Mn	Dissolved Fe	Sulfide	SH				
	(7) Known or possible Hazards	Total number of containers													
Chain of Custody Signatures Relinquished By (Signed) _____ Date _____ Received by (signed) _____ Date _____ 1. <i>[Signature]</i> 9/15/23 1030 2. <i>[Signature]</i> 3. _____															
Chain of Custody Signatures TAT Requested: _____ Normal: _____ Rush: _____ Specify: _____ (Subject to Surcharge) Fax Results: [] Yes [] No Select Deliverable [] C of A [] QC Summary [] Level 1 [] Level 2 [] Level 3 [] Level 4 Additional Remarks: Task Code: MCM-CCR-ASSMT-2023S2 For Lab Receiving Use Only: Custody Seal Intact? [] Yes [] No Cooler Temp: _____ °C Sample Collection Time Zone: [X] Eastern [] Pacific [] Central [] Mountain [] Other:															
1.) Chain of Custody Number = Client Determined 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered. 4.) Matrix Codes: DW = Drinking Water, GW = Groundwater, SW = Surface Water, WW = Waste Water, W = Water, ML = MISC Liquid, SO = Soil, SD = Solid Waste, O = Oil, F = Filter, P = Wipe, U = Urine, F = Fecal, N = Nasal 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1) 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sulfuric Acid, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank 7.) KNOWN OR POSSIBLE HAZARDS <table border="0" style="width:100%"> <tr> <td style="width:50%"> RCRA Metals As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead </td> <td style="width:50%"> Characteristic Hazards FL = Flammable/Ignitable CO = Corrosive RE = Reactive TSCA Regulated PCB = Polychlorinated biphenyls </td> </tr> <tr> <td> Listed Waste LW = Listed Waste (F, K, P and U-listed wastes.) Waste code(s): _____ </td> <td> Other OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____ </td> </tr> </table>												RCRA Metals As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	Characteristic Hazards FL = Flammable/Ignitable CO = Corrosive RE = Reactive TSCA Regulated PCB = Polychlorinated biphenyls	Listed Waste LW = Listed Waste (F, K, P and U-listed wastes.) Waste code(s): _____	Other OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____
RCRA Metals As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	Characteristic Hazards FL = Flammable/Ignitable CO = Corrosive RE = Reactive TSCA Regulated PCB = Polychlorinated biphenyls														
Listed Waste LW = Listed Waste (F, K, P and U-listed wastes.) Waste code(s): _____	Other OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____														
Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.) *Dissolved Fe, Mn are the only Field Filtered Samples*															

Page: 3 of 3
 Project # GPCC00105
 GEL Quote #: GELP22-0819
 QC Number (1):
 PO Number:
 Client Name: Kristen Jurinko
 Client Address: 2040 Savage Road, Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

GEL Work Order Number: **GEL Project Manager: Erin Trent**
 Phone # _____ Fax # _____
 Client Name: Plant McManus CCR Groundwater Compliance Sept. 2023
 Address: 241 Ralph McGill Blvd. NE, Atlanta, GA 30308

Requested By: William Laaker, Meredith Durcan, Kevin Stephenson
 Send Results To: kjurink@southemco.com, trent.godwin@resoluteenv.com, kevin.stephenson@resoluteenv.com

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (a)	Field Filtered (b)	Sample Matrix (c)	Radioactive (If Yes, please supply isotopic info)	(7) Known or Possible Hazards	Total number of containers	Total Metals (App III & IV)	TDS/Anions	Radium 226/228	Metals (As, Fe Only)	Total Mn	Dissolved Mn	Dissolved Fe	Sulfide	SH	Preservative Type (6)	Comments
MCM-DR-01			G	Y*	WG			4	X	X		X	X	X	X			<--	Note: extra sample is required for sample specific QC
MCM-DR-02			G	Y*	WG			4	X	X		X	X	X	X				
MCM-API-FD-01	09-12-23		FD	N	WG			5	X	X	X								
MCM-API-FD-02			FD		WG														
MCM-API-FD-03			FD		WG														
MCM-API-FB-1	09-12-23	1535	FB	N	WQ			5	X	X	X								
MCM-API-FB-			FB		WQ														
MCM-API-EB-			EB		WQ														
MCM-API-EB-			EB		WQ														

Chain of Custody Signatures
 Relinquished By (Signed) _____ Date _____ Time _____
 Received by (signed) _____ Date _____ Time _____
 1 *[Signature]* 9/15/23 1030
 2 *[Signature]*
 3 _____
 TAT Requested: Normal: _____ Rush: _____ Specify: _____ (Subject to Surcharge)
 Fax Results: Yes No
 Select Deliverable: C of A QC Summary Level 1 Level 2 Level 3 Level 4
 Additional Remarks: Task Code: MCM-CCR-ASSMT-2023S2
 For Lab Receiving Use Only: Custody Seal Intact? Yes No Cooler Temp: _____ °C
 Sample Collection Time Zone: Eastern Pacific Central Mountain Other:

1.) Chain of Custody Number = Client Determined
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
 4.) Matrix Codes: DW = Drinking Water, GW = Groundwater, SW = Surface Water, WW = Waste Water, W = Water, ML = Misc Liquid, SO = Soil, SD = Sediment, SL = Sludge, SS = Solid Waste, O = Oil, F = Filter, P = Wipe, U = Urine, F = Fecal, N = Nasal
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B 7470A - 1)
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank
 7.) KNOWN OR POSSIBLE HAZARDS
 Characteristic Hazards: FL = Flammable/Lightable, CO = Corrosive, RE = Reactive
 Listed Waste: LW = Listed Waste
 Waste code(s): _____
 RCRA Metals: As = Arsenic, Hg = Mercury, Ba = Barium, Se = Selenium, Cd = Cadmium, Ag = Silver, Cr = Chromium, MR = Misc. RCRA metals
 PCB = Polychlorinated biphenyls
 Other: OT = Other / Unknown
 Description: (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
 Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)
 Dissolved Fe, Mn are the only Field Filtered Samples

Page: 3 of 3
 Project # GPCC00105
 GEL Quote #: GELP22-0819
 Client Name: Kristen Jurinko
 PO Number: _____

GEL Laboratories, LLC
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

Chain of Custody and Analytical Request

GEL Work Order Number: _____ *GEL Project Manager:* Erin Trent

Client Name: Kristen Jurinko Phone # _____
 Project/Site Name: Plant McManus CCR Groundwater Compliance Sept. 2023 Fax # _____

Address: 241 Ralph McGill Blvd. NE, Atlanta, GA 30308
 Contacted By: William Laaker, Meredith Duncan, Kevin Send Results To: knjurink@southernco.com
 Stevenson (Resolute Environmental) kevin.stevenson@resoluteenv.com, trent.godwin@resoluteenv.com

Sample ID <small>* For composites - indicate start and stop date time</small>	*Date Collected (mm-dd-yy)	*Time Collected (Military (hhmm))	QC Code (a)	Field Filtered (b)	Sample Matrix (c)	Total number of containers	Should this sample be considered:			Sample Analysis Requested (b) (Fill in the number of containers for each test)																																					
							Radiactive (if isotopic info)	Yes, please supply	Known or possible Hazards	Total Metals (App III & IV)	TDS/Antons	Radium 226/228	Metals (As, Fe Only)	Total Mn	Dissolved Mn	Dissolved Fe	Sulfide	SH	Preservative Type (6)																												
																			NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI																	
-MCM-PR-01			G	Y*	WG	4				*		*	*	*	*	*																															
-MCM-PR-02			G	Y*	WG	4				*		*	*	*	*	*																															
-MCM-API-FD-01			FD		WG																																										
-MCM-API-FD-02			FD		WG																																										
-MCM-API-FD-03			FD		WG																																										
-MCM-API-FB-			FB		WQ																																										
-MCM-API-FB-			FB		WQ																																										
-MCM-API-FB-			FB		WQ																																										
-MCM-API-FB-			FB		WQ																																										
PW	9/14/23	1242	G	N	WG	5																																									

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>[Signature]</i>	9/15/23	1036	<i>[Signature]</i>		
1					
2					
3					

TAT Requested: Normal: Rush: _____ Specify: _____ (Subject to Surcharge)

Fax Results: Yes No

Select Deliverable: C of A QC Summary Level 1 Level 2 Level 3 Level 4

Additional Remarks: **Task Code: MCM-CCR-ASSMT-2023S2**

For Lab Receiving Use Only: Custody Seal Intact? Yes No Cooler Temp: _____ °C

Sample Collection Time Zone: Eastern Pacific Central Mountain Other: _____

For sample shipping and delivery details, see Sample Receipt & Review form (SRR).

1.) Chain of Custody Number = Client Determined
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
 4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urms, F=Faecal, N=Nasal
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B 7470A - 1).
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank
 7.) **KNOWN OR POSSIBLE HAZARDS**

RCRA Metals	Characteristic Hazards	Listed Waste	Other
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F, K, P and U-listed wastes.) Waste code(s): _____	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____ _____
Hg = Mercury Se = Selenium Ag = Silver			
MR = Misc. RCRA metals	TSCA Regulated PCB = Polychlorinated biphenyls		

Dissolved Fe, Mn are the only Field Filtered Samples

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

637334



SAMPLE RECEIPT & REVIEW FORM

637305 637268

Client: <u>GPCC</u>		SDG/AR/COC/Work Order:		
Received By: <u>QG</u>		Date Received: <u>9/15/23</u>		
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier <u>Other</u>		
		<u>client drop off</u>		
Suspected Hazard Information	Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.	
A) Shipped as a DOT Hazardous?			Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___	
B) Did the client designate the samples are to be received as radioactive?			COC notation or radioactive stickers on containers equal client designation.	
C) Did the RSO classify the samples as radioactive?			Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM/mR/Hr Classified as: Rad 1 Rad 2 Rad 3	
D) Did the client designate samples are hazardous?			COC notation or hazard labels on containers equal client designation.	
E) Did the RSO identify possible hazards?			*If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:	
Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice <u>None</u> Other: *all temperatures are recorded in Celsius TEMP: <u>3°C</u>
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Temperature Device Serial #: <u>IR1-23</u> Secondary Temperature Device Serial # (If Applicable):
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#:
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
				Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
				Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___
8 Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ID's and tests affected:
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ID's and containers affected:
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
12 Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed):				

PM (or PMA) review: Initials AT Date 9/19/23 Page 1 of 1

List of current GEL Certifications as of 06 October 2023

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-23-21
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

October 13, 2023

Kristen Jurinko
Georgia Power Company
241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308

Re: Plant McManus CCR Groundwater Compliance
Work Order: 637305

Dear Kristen Jurinko:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on September 15, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt. The laboratory received the following sample(s):

<u>Laboratory ID</u>	<u>Client ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
637305001	MCM-MCM-01	Ground Water	12/09/23 10:56	15/09/23 12:00
637305002	MCM-MCM-05	Ground Water	12/09/23 14:30	15/09/23 12:00
637305003	MCM-MCM-12	Ground Water	12/09/23 10:30	15/09/23 12:00
637305004	MCM-MCM-14	Ground Water	12/09/23 13:05	15/09/23 12:00
637305005	MCM-MCM-15	Ground Water	12/09/23 14:28	15/09/23 12:00
637305006	MCM-MCM-16	Ground Water	12/09/23 13:02	15/09/23 12:00
637305007	MCM-API-FD-01	Ground Water	12/09/23 12:00	15/09/23 12:00
637305008	MCM-API-FB-1	Ground Water	12/09/23 15:35	15/09/23 12:00
637305009	MCM-MCM-02	Ground Water	14/09/23 11:40	15/09/23 12:00
637305010	MCM-MCM-06	Ground Water	14/09/23 14:32	15/09/23 12:00
637305011	MCM-MCM-18	Ground Water	14/09/23 10:02	15/09/23 12:00
637305012	MCM-DPZ-02	Ground Water	14/09/23 10:18	15/09/23 12:00
637305013	MCM-MCM-04	Ground Water	13/09/23 16:45	15/09/23 12:00
637305014	MCM-MCM-07	Ground Water	13/09/23 13:58	15/09/23 12:00
637305015	MCM-MCM-11	Ground Water	13/09/23 13:45	15/09/23 12:00



637305016	MCM-MCM-17	Ground Water	13/09/23 17:15	15/09/23 12:00
637305017	MCM-MCM-19	Ground Water	13/09/23 14:18	15/09/23 12:00
637305018	MCM-MCM-20	Ground Water	13/09/23 16:20	15/09/23 12:00
637305019	MCM-AP1-FD-02	Ground Water	13/09/23 12:00	15/09/23 12:00
637305020	MCM-AP1-FB-02	Ground Water	13/09/23 17:26	15/09/23 12:00
637305021	MCM-AP1-EB-01	Ground Water	13/09/23 17:38	15/09/23 12:00
637305023	MCM-AP1-FD-03	Ground Water	14/09/23 12:00	15/09/23 12:00
637305024	MCM-AP1-FB-03	Ground Water	14/09/23 13:48	15/09/23 12:00
637305025	MCM-AP1-EB-02	Ground Water	14/09/23 13:54	15/09/23 12:00

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Prep Methods and Prep Dates

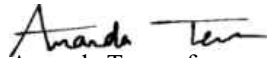
Not Applicable

Analysis Methods and Analysis Dates

<u>Method</u>	<u>Run Date ID</u>
Calculation	13-OCT-2023
EPA 903.1 Modified	13-OCT-2023
EPA 903.1 Modified	30-SEP-2023
EPA 904.0/SW846 9320 Modified	05-OCT-2023
EPA 904.0/SW846 9320 Modified	06-OCT-2023
EPA 904.0/SW846 9320 Modified	11-OCT-2023

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

A handwritten signature in black ink that reads "Amanda Turner". The signature is written in a cursive style with a long horizontal flourish extending to the right.

Amanda Turner for
Erin Trent
Project Manager

Purchase Order: GPC82177-0007
Enclosures

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 637305 GEL Work Order: 637305

The Qualifiers in this report are defined as follows:

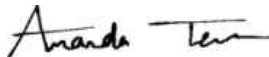
- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308

Report Date: October 13, 2023

Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-MCM-01
 Sample ID: 637305001
 Matrix: WG
 Collect Date: 12-SEP-23
 Receive Date: 15-SEP-23
 Collector: Client

Project: GPCC00105
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.349	+/-0.720	1.30	+/-0.725	3.00	pCi/L			JE1	10/05/23	1119	2493711	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.54	+/-1.21	1.30	+/-1.37		pCi/L		1	LXB3	10/13/23	1353	2493709	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		3.19	+/-0.976	0.818	+/-1.16	1.00	pCi/L			LXP1	10/13/23	0730	2493701	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2493711	79.4	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Certificate of Analysis

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
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 Atlanta, Georgia 30308

Report Date: October 13, 2023

Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-MCM-05
 Sample ID: 637305002
 Matrix: WG
 Collect Date: 12-SEP-23
 Receive Date: 15-SEP-23
 Collector: Client

Project: GPCC00105
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		1.62	+/-1.02	1.56	+/-1.10	3.00	pCi/L			JE1	10/05/23	1120	2493711	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		4.42	+/-1.38	1.56	+/-1.58		pCi/L		1	LXB3	10/13/23	1353	2493709	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		2.79	+/-0.932	0.914	+/-1.13	1.00	pCi/L			LXP1	10/13/23	0730	2493701	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2493711	91.5	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Report Date: October 13, 2023

Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-MCM-12
 Sample ID: 637305003
 Matrix: WG
 Collect Date: 12-SEP-23
 Receive Date: 15-SEP-23
 Collector: Client

Project: GPCC00105
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		1.69	+/-1.02	1.53	+/-1.11	3.00	pCi/L			JE1	10/05/23	1120	2493711	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.43	+/-1.25	1.53	+/-1.35		pCi/L		1	LXB3	10/13/23	1353	2493709	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.74	+/-0.730	0.764	+/-0.780	1.00	pCi/L			LXP1	10/13/23	0730	2493701	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2493711	86.1	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Report Date: October 13, 2023

Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-MCM-14
 Sample ID: 637305004
 Matrix: WG
 Collect Date: 12-SEP-23
 Receive Date: 15-SEP-23
 Collector: Client

Project: GPCC00105
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		3.09	+/-1.14	1.48	+/-1.39	3.00	pCi/L			JE1	10/05/23	1120	2493711	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		5.46	+/-1.50	1.48	+/-1.75		pCi/L		1	LXB3	10/13/23	1353	2493709	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		2.37	+/-0.985	1.13	+/-1.07	1.00	pCi/L			LXP1	10/13/23	0730	2493701	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2493711	90.5	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Report Date: October 13, 2023

Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-MCM-15
 Sample ID: 637305005
 Matrix: WG
 Collect Date: 12-SEP-23
 Receive Date: 15-SEP-23
 Collector: Client

Project: GPCC00105
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		1.70	+/-1.07	1.65	+/-1.16	3.00	pCi/L			JE1	10/05/23	1120	2493711	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.88	+/-1.35	1.65	+/-1.49		pCi/L		1	LXB3	10/13/23	1353	2493709	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		2.17	+/-0.817	0.833	+/-0.942	1.00	pCi/L			LXP1	10/13/23	0730	2493701	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2493711	89.4	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Report Date: October 13, 2023

Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-MCM-16
 Sample ID: 637305006
 Matrix: WG
 Collect Date: 12-SEP-23
 Receive Date: 15-SEP-23
 Collector: Client

Project: GPCC00105
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.294	+/-0.601	1.09	+/-0.606	3.00	pCi/L			JE1	10/05/23	1120	2493711	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.18	+/-1.06	1.09	+/-1.27		pCi/L		1	LXB3	10/13/23	1353	2493709	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		2.88	+/-0.872	0.502	+/-1.12	1.00	pCi/L			LXP1	10/13/23	0730	2493701	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2493711	87.1	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Report Date: October 13, 2023

Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-AP1-FD-01
 Sample ID: 637305007
 Matrix: WG
 Collect Date: 12-SEP-23
 Receive Date: 15-SEP-23
 Collector: Client

Project: GPCC00105
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		2.77	+/-1.36	2.05	+/-1.53	3.00	pCi/L			JE1	10/05/23	1120	2493711	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		5.96	+/-1.67	2.05	+/-1.96		pCi/L		1	LXB3	10/13/23	1353	2493709	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		3.20	+/-0.971	0.752	+/-1.21	1.00	pCi/L			LXP1	10/13/23	0730	2493701	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2493711	90	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

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Report Date: October 13, 2023

Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-AP1-FB-1
 Sample ID: 637305008
 Matrix: WQ
 Collect Date: 12-SEP-23
 Receive Date: 15-SEP-23
 Collector: Client

Project: GPCC00105
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		1.58	+/-0.949	1.39	+/-1.03	3.00	pCi/L			JE1	10/05/23	1120	2493711	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.02	+/-1.01	1.39	+/-1.09		pCi/L		1	LXB3	10/13/23	1353	2493709	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.445	+/-0.345	0.425	+/-0.360	1.00	pCi/L			LXP1	10/13/23	0730	2493701	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2493711	79	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Report Date: October 13, 2023

Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-MCM-02
 Sample ID: 637305009
 Matrix: WG
 Collect Date: 14-SEP-23
 Receive Date: 15-SEP-23
 Collector: Client

Project: GPCC00105
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.66	+/-1.15	1.81	+/-1.22	3.00	pCi/L			JE1	10/05/23	1120	2493711	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.14	+/-1.32	1.81	+/-1.43		pCi/L		1	LXB3	10/13/23	1353	2493709	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.49	+/-0.666	0.542	+/-0.737	1.00	pCi/L			LXP1	10/13/23	0804	2493701	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2493711	87.3	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Report Date: October 13, 2023

Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-MCM-06
 Sample ID: 637305010
 Matrix: WG
 Collect Date: 14-SEP-23
 Receive Date: 15-SEP-23
 Collector: Client

Project: GPCC00105
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		1.45	+/-0.831	1.20	+/-0.909	3.00	pCi/L			JE1	10/05/23	1120	2493711	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.61	+/-1.14	1.20	+/-1.25		pCi/L		1	LXB3	10/13/23	1353	2493709	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		2.16	+/-0.775	0.683	+/-0.853	1.00	pCi/L			LXP1	10/13/23	0804	2493701	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2493711	89.1	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Report Date: October 13, 2023

Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-MCM-18
 Sample ID: 637305011
 Matrix: WG
 Collect Date: 14-SEP-23
 Receive Date: 15-SEP-23
 Collector: Client

Project: GPCC00105
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		4.76	+/-1.14	1.14	+/-1.66	3.00	pCi/L			JE1	10/05/23	1120	2493711	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		4.91	+/-1.17	1.14	+/-1.69		pCi/L		1	LXB3	10/13/23	1353	2493709	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.146	+/-0.287	0.560	+/-0.288	1.00	pCi/L			LXP1	10/13/23	0804	2493701	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2493711	92.4	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Report Date: October 13, 2023

Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-DPZ-02
 Sample ID: 637305012
 Matrix: WG
 Collect Date: 14-SEP-23
 Receive Date: 15-SEP-23
 Collector: Client

Project: GPCC00105
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		2.78	+/-1.27	1.84	+/-1.46	3.00	pCi/L			JE1	10/05/23	1120	2493711	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		11.7	+/-1.92	1.84	+/-2.69		pCi/L		1	LXB3	10/13/23	1353	2493709	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		8.90	+/-1.44	0.457	+/-2.26	1.00	pCi/L			LXP1	10/13/23	0804	2493701	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2493711	81.8	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Report Date: October 13, 2023

Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-MCM-04
 Sample ID: 637305013
 Matrix: WG
 Collect Date: 13-SEP-23
 Receive Date: 15-SEP-23
 Collector: Client

Project: GPCC00105
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.164	+/-0.733	1.39	+/-0.734	3.00	pCi/L			JE1	10/05/23	1233	2493711	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.05	+/-1.05	1.39	+/-1.13		pCi/L		1	LXB3	10/13/23	1353	2493709	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.89	+/-0.749	0.790	+/-0.861	1.00	pCi/L			LXP1	10/13/23	0804	2493701	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2493711	85.7	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Certificate of Analysis

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308

Report Date: October 13, 2023

Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-MCM-07
 Sample ID: 637305014
 Matrix: WG
 Collect Date: 13-SEP-23
 Receive Date: 15-SEP-23
 Collector: Client

Project: GPCC00105
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		2.89	+/-1.44	2.16	+/-1.62	3.00	pCi/L			JE1	10/05/23	1120	2493711	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		10.3	+/-1.99	2.16	+/-2.40		pCi/L		1	LXB3	10/13/23	1353	2493709	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		7.42	+/-1.38	0.618	+/-1.78	1.00	pCi/L			LXP1	10/13/23	0804	2493701	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2493711	85.2	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Report Date: October 13, 2023

Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-MCM-11
 Sample ID: 637305015
 Matrix: WG
 Collect Date: 13-SEP-23
 Receive Date: 15-SEP-23
 Collector: Client

Project: GPCC00105
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.966	+/-0.747	1.16	+/-0.787	3.00	pCi/L			JE1	10/05/23	1120	2493711	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.14	+/-1.09	1.16	+/-1.19		pCi/L		1	LXB3	10/13/23	1353	2493709	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		2.18	+/-0.793	0.708	+/-0.893	1.00	pCi/L			LXP1	10/13/23	0804	2493701	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2493711	91.1	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Report Date: October 13, 2023

Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-MCM-17
 Sample ID: 637305016
 Matrix: WG
 Collect Date: 13-SEP-23
 Receive Date: 15-SEP-23
 Collector: Client

Project: GPCC00105
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		1.63	+/-0.828	1.12	+/-0.927	3.00	pCi/L			JE1	10/06/23	0805	2493712	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		4.44	+/-1.08	1.12	+/-1.27		pCi/L			LXB3	10/13/23	1404	2493710	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		2.81	+/-0.698	0.530	+/-0.874	1.00	pCi/L			LXP1	10/13/23	0837	2493702	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2493712	85.2	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Report Date: October 13, 2023

Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-MCM-19
 Sample ID: 637305017
 Matrix: WG
 Collect Date: 13-SEP-23
 Receive Date: 15-SEP-23
 Collector: Client

Project: GPCC00105
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		21.4	+/-2.57	1.93	+/-6.02	3.00	pCi/L			JE1	10/11/23	0809	2493712	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		27.3	+/-2.75	1.93	+/-6.16		pCi/L			LXB3	10/13/23	1404	2493710	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		5.89	+/-0.998	0.409	+/-1.32	1.00	pCi/L			LXP1	10/13/23	0837	2493702	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2493712	75.6	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Certificate of Analysis

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Report Date: October 13, 2023

Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-MCM-20
Sample ID: 637305018
Matrix: WG
Collect Date: 13-SEP-23
Receive Date: 15-SEP-23
Collector: Client

Project: GPCC00105
Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		31.2	+/-2.95	1.68	+/-8.47	3.00	pCi/L			JE1	10/11/23	0809	2493712	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		34.9	+/-3.02	1.68	+/-8.51		pCi/L			LXB3	10/13/23	1404	2493710	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		3.74	+/-0.647	0.220	+/-0.859	1.00	pCi/L			LXP1	10/13/23	0837	2493702	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2493712	79.3	(15%-125%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration

Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Report Date: October 13, 2023

Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-AP1-FD-02
 Sample ID: 637305019
 Matrix: WG
 Collect Date: 13-SEP-23
 Receive Date: 15-SEP-23
 Collector: Client

Project: GPCC00105
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.485	+/-1.28	2.29	+/-1.29	3.00	pCi/L			JE1	10/06/23	0927	2493712	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.45	+/-1.40	2.29	+/-1.44		pCi/L			LXB3	10/13/23	1404	2493710	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.96	+/-0.553	0.361	+/-0.642	1.00	pCi/L			LXP1	10/13/23	0837	2493702	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2493712	76.6	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Report Date: October 13, 2023

Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-AP1-FB-02
 Sample ID: 637305020
 Matrix: WQ
 Collect Date: 13-SEP-23
 Receive Date: 15-SEP-23
 Collector: Client

Project: GPCC00105
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.232	+/-1.32	2.37	+/-1.32	3.00	pCi/L			JE1	10/06/23	0806	2493712	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.782	+/-1.36	2.37	+/-1.37		pCi/L			LXB3	10/13/23	1404	2493710	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.550	+/-0.345	0.451	+/-0.360	1.00	pCi/L			LXP1	10/13/23	0837	2493702	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2493712	78.4	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Certificate of Analysis

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
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Report Date: October 13, 2023

Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-AP1-EB-01
 Sample ID: 637305021
 Matrix: WQ
 Collect Date: 13-SEP-23
 Receive Date: 15-SEP-23
 Collector: Client

Project: GPCC00105
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.266	+/-0.714	1.31	+/-0.717	3.00	pCi/L			JE1	10/06/23	0806	2493712	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.480	+/-0.760	1.31	+/-0.765		pCi/L			LXB3	10/13/23	1404	2493710	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.215	+/-0.262	0.440	+/-0.267	1.00	pCi/L			LXP1	10/13/23	0912	2493702	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2493712	77.8	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Report Date: October 13, 2023

Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-AP1-FD-03
 Sample ID: 637305023
 Matrix: WG
 Collect Date: 14-SEP-23
 Receive Date: 15-SEP-23
 Collector: Client

Project: GPCC00105
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		3.59	+/-1.06	1.10	+/-1.40	3.00	pCi/L			JE1	10/06/23	0806	2493712	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		8.00	+/-1.34	1.10	+/-1.75		pCi/L			LXB3	10/13/23	1404	2493710	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		4.40	+/-0.820	0.492	+/-1.06	1.00	pCi/L			LXP1	10/13/23	0912	2493702	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2493712	83.2	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Report Date: October 13, 2023

Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-AP1-FB-03
Sample ID: 637305024
Matrix: WQ
Collect Date: 14-SEP-23
Receive Date: 15-SEP-23
Collector: Client

Project: GPCC00105
Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.854	+/-0.967	1.62	+/-0.991	3.00	pCi/L			JE1	10/06/23	0806	2493712	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.39	+/-1.01	1.62	+/-1.04		pCi/L			LXB3	10/13/23	1404	2493710	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.540	+/-0.291	0.275	+/-0.305	1.00	pCi/L			LXP1	10/13/23	0912	2493702	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2493712	64.2	(15%-125%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration

Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Report Date: October 13, 2023

Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-AP1-EB-02
 Sample ID: 637305025
 Matrix: WQ
 Collect Date: 14-SEP-23
 Receive Date: 15-SEP-23
 Collector: Client

Project: GPCC00105
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.654	+/-1.41	2.48	+/-1.42	3.00	pCi/L			JE1	10/06/23	0806	2493712	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.05	+/-1.44	2.48	+/-1.45		pCi/L			LXB3	10/13/23	1404	2493710	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.391	+/-0.287	0.375	+/-0.297	1.00	pCi/L			LXP1	10/13/23	0912	2493702	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2493712	70.1	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

**Radiochemistry
Technical Case Narrative
Georgia Power Company
SDG #: 637305**

Product: Radium-226+Radium-228 Calculation

Analytical Method: Calculation

Analytical Procedure: GL-RAD-D-003 REV# 45

Analytical Batch: 2493709

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
637305001	MCM-MCM-01
637305002	MCM-MCM-05
637305003	MCM-MCM-12
637305004	MCM-MCM-14
637305005	MCM-MCM-15
637305006	MCM-MCM-16
637305007	MCM-AP1-FD-01
637305008	MCM-AP1-FB-1
637305009	MCM-MCM-02
637305010	MCM-MCM-06
637305011	MCM-MCM-18
637305012	MCM-DPZ-02
637305013	MCM-MCM-04
637305014	MCM-MCM-07
637305015	MCM-MCM-11

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: Radium-226+Radium-228 Calculation

Analytical Method: Calculation

Analytical Procedure: GL-RAD-D-003 REV# 45

Analytical Batch: 2493710

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
637305016	MCM-MCM-17
637305017	MCM-MCM-19
637305018	MCM-MCM-20
637305019	MCM-AP1-FD-02

637305020	MCM-AP1-FB-02
637305021	MCM-AP1-EB-01
637305023	MCM-AP1-FD-03
637305024	MCM-AP1-FB-03
637305025	MCM-AP1-EB-02

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: GFPC Ra228, Liquid

Analytical Method: EPA 904.0/SW846 9320 Modified

Analytical Procedure: GL-RAD-A-063 REV# 5

Analytical Batch: 2493711

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
637305001	MCM-MCM-01
637305002	MCM-MCM-05
637305003	MCM-MCM-12
637305004	MCM-MCM-14
637305005	MCM-MCM-15
637305006	MCM-MCM-16
637305007	MCM-AP1-FD-01
637305008	MCM-AP1-FB-1
637305009	MCM-MCM-02
637305010	MCM-MCM-06
637305011	MCM-MCM-18
637305012	MCM-DPZ-02
637305013	MCM-MCM-04
637305014	MCM-MCM-07
637305015	MCM-MCM-11
1205519150	Method Blank (MB)
1205519151	637305001(MCM-MCM-01) Sample Duplicate (DUP)
1205519152	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Preparation Information

Homogenous Matrix

Samples 637305003 (MCM-MCM-12) and 637305014 (MCM-MCM-07) were non-homogenous matrix. yellowed liquid 637305003 (MCM-MCM-12) and 637305014 (MCM-MCM-07).

Technical Information

Recounts

Sample 637305013 (MCM-MCM-04) was recounted due to a suspected false positive. The recount is reported.

Product: GFPC Ra228, Liquid

Analytical Method: EPA 904.0/SW846 9320 Modified

Analytical Procedure: GL-RAD-A-063 REV# 5

Analytical Batch: 2493712

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
637305016	MCM-MCM-17
637305017	MCM-MCM-19
637305018	MCM-MCM-20
637305019	MCM-AP1-FD-02
637305020	MCM-AP1-FB-02
637305021	MCM-AP1-EB-01
637305023	MCM-AP1-FD-03
637305024	MCM-AP1-FB-03
637305025	MCM-AP1-EB-02
1205519153	Method Blank (MB)
1205519154	637305016(MCM-MCM-17) Sample Duplicate (DUP)
1205519155	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Preparation Information

Homogenous Matrix

Samples 1205519154 (MCM-MCM-17DUP) and 637305016 (MCM-MCM-17) were non-homogenous matrix. yellowed liquid 1205519154 (MCM-MCM-17DUP) and 637305016 (MCM-MCM-17).

Technical Information

Recounts

Sample 637305019 (MCM-AP1-FD-02) was recounted due to a suspected false positive. The recount is reported. Samples 637305017 (MCM-MCM-19) and 637305018 (MCM-MCM-20) were re-eluted and recounted to verify sample results. The recounts are reported.

Product: Lucas Cell, Ra226, Liquid

Analytical Method: EPA 903.1 Modified

Analytical Procedure: GL-RAD-A-008 REV# 15

Analytical Batch: 2493701

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
637305001	MCM-MCM-01
637305002	MCM-MCM-05
637305003	MCM-MCM-12
637305004	MCM-MCM-14
637305005	MCM-MCM-15
637305006	MCM-MCM-16
637305007	MCM-AP1-FD-01
637305008	MCM-AP1-FB-1
637305009	MCM-MCM-02
637305010	MCM-MCM-06
637305011	MCM-MCM-18
637305012	MCM-DPZ-02
637305013	MCM-MCM-04
637305014	MCM-MCM-07
637305015	MCM-MCM-11
1205519126	Method Blank (MB)
1205519127	637305001(MCM-MCM-01) Sample Duplicate (DUP)
1205519128	637305001(MCM-MCM-01) Matrix Spike (MS)
1205519129	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: Lucas Cell, Ra226, Liquid

Analytical Method: EPA 903.1 Modified

Analytical Procedure: GL-RAD-A-008 REV# 15

Analytical Batch: 2493702

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
637305016	MCM-MCM-17
637305017	MCM-MCM-19
637305018	MCM-MCM-20
637305019	MCM-AP1-FD-02
637305020	MCM-AP1-FB-02
637305021	MCM-AP1-EB-01

637305023	MCM-AP1-FD-03
637305024	MCM-AP1-FB-03
637305025	MCM-AP1-EB-02
1205519130	Method Blank (MB)
1205519131	637305016(MCM-MCM-17) Sample Duplicate (DUP)
1205519132	637305016(MCM-MCM-17) Matrix Spike (MS)
1205519133	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Duplication Criteria between QC Sample and Duplicate Sample

The Sample and the Duplicate, (See Below), did not meet the relative percent difference requirement; however, they do meet the relative error ratio requirement with the value listed below.

Sample	Analyte	Value
1205519131 (MCM-MCM-17DUP)	Radium-226	RPD 25.5* (0.00%-20.00%) RER 1.13 (0-3)

Technical Information

Recounts

Sample 1205519133 (LCS) was recounted due to low recovery. The recount is reported.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: October 13, 2023

Page 1 of 3

Client : Georgia Power Company
241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia

Contact: Kristen Jurinko

Workorder: 637305

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gas Flow											
Batch	2493711										
QC1205519151	637305001 DUP										
Radium-228	U	0.349	U	-0.00224	pCi/L	0		N/A	JE1	10/05/23	11:20
	Uncert:	+/-0.720		+/-0.519							
	TPU:	+/-0.725		+/-0.519							
QC1205519152	LCS										
Radium-228	77.4			73.2	pCi/L		94.6	(75%-125%)	JE1	10/05/23	11:20
	Uncert:			+/-4.01							
	TPU:			+/-19.1							
QC1205519150	MB										
Radium-228			U	0.715	pCi/L				JE1	10/05/23	11:20
	Uncert:			+/-0.641							
	TPU:			+/-0.667							
Batch	2493712										
QC1205519154	637305016 DUP										
Radium-228		1.63		2.05	pCi/L	22.5		(0% - 100%)	JE1	10/06/23	08:05
	Uncert:	+/-0.828		+/-1.03							
	TPU:	+/-0.927		+/-1.15							
QC1205519155	LCS										
Radium-228	77.0			81.3	pCi/L		106	(75%-125%)	JE1	10/06/23	08:05
	Uncert:			+/-4.79							
	TPU:			+/-21.2							
QC1205519153	MB										
Radium-228			U	0.624	pCi/L				JE1	10/06/23	08:05
	Uncert:			+/-0.891							
	TPU:			+/-0.906							
Rad Ra-226											
Batch	2493701										
QC1205519127	637305001 DUP										
Radium-226		3.19		2.90	pCi/L	9.51		(0% - 100%)	LXP1	10/13/23	08:37
	Uncert:	+/-0.976		+/-1.06							
	TPU:	+/-1.16		+/-1.16							
QC1205519129	LCS										
Radium-226	26.3			28.1	pCi/L		107	(75%-125%)	LXP1	10/13/23	11:26
	Uncert:			+/-2.76							
	TPU:			+/-7.22							
QC1205519126	MB										
Radium-226			U	0.211	pCi/L				LXP1	10/13/23	08:04
	Uncert:			+/-0.413							
	TPU:			+/-0.415							
QC1205519128	637305001 MS										
Radium-226	261	3.19		293	pCi/L		111	(75%-125%)	LXP1	10/13/23	08:37

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QC Summary

Workorder: 637305

Page 2 of 3

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Ra-226										
Batch	2493701									
	Uncert:	+/-0.976	+/-19.0							
	TPU:	+/-1.16	+/-63.0							
Batch	2493702									
QC1205519131	637305016 DUP									
Radium-226		2.81	2.17	pCi/L	25.5*		(0%-20%)	LXP1	10/13/23	09:12
	Uncert:	+/-0.698	+/-0.582							
	TPU:	+/-0.874	+/-0.673							
QC1205519133	LCS									
Radium-226	26.7		21.8	pCi/L		81.6	(75%-125%)	LXP1	10/13/23	11:26
	Uncert:		+/-1.68							
	TPU:		+/-4.06							
QC1205519130	MB									
Radium-226		U	0.131	pCi/L				LXP1	10/13/23	09:12
	Uncert:		+/-0.257							
	TPU:		+/-0.258							
QC1205519132	637305016 MS									
Radium-226	132	2.81	154	pCi/L		115	(75%-125%)	LXP1	10/13/23	09:12
	Uncert:	+/-0.698	+/-11.0							
	TPU:	+/-0.874	+/-26.7							

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- UI Gamma Spectroscopy--Uncertain identification
- BD Results are either below the MDC or tracer recovery is low
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- M M if above MDC and less than LLD
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- FA Failed analysis.
- UJ Gamma Spectroscopy--Uncertain identification
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- K Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- UL Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.

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QC Summary

Workorder: 637305

Page 3 of 3

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
L										
N1										
**										
M										
J										

L Analyte present. Reported value may be biased low. Actual value is expected to be higher.

N1 See case narrative

Y Other specific qualifiers were required to properly define the results. Consult case narrative.

** Analyte is a Tracer compound

M REMP Result > MDC/CL and < RDL

J See case narrative for an explanation

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

** Indicates analyte is a surrogate/tracer compound.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Page: 1 of 3
 Project # GPCC00105
 GEL Quote #: GELP22-0819
 COE Number (1):
 PO Number:

GEL Laboratories, LLC
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

637305
 637208

Chain of Custody and Analytical Request
 GEL Project Manager: Erin Trent

Client Name: Kristen Jurinko
 Phone #
 Project/Site Name: Plant McManus CCR Groundwater Compliance Sept. 2023 Fax #
 Address: 241 Ralph McGill Blvd. NE, Atlanta, GA 30308

Collected By: William Laaker, Meredith Duncan, Kevin Stephenson (Resolute Environmental)
 Send Results To: kjurnnk@southernco.com, kevin.stephenson@resoluteenv.com, trent.godwin@resoluteenv.com

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (a)	Field Filtered (b)	Sample Matrix (c)
MCM-MCM-01			G	N	WG
MCM-MCM-02	09-14-23	1140	G	N	WG
MCM-MCM-04			G	N	WG
MCM-MCM-05			G	N	WG
MCM-MCM-06	09-14-23	1432	G	Y*	WG
MCM-MCM-07			G	N	WG
MCM-MCM-11			G	N	WG
MCM-MCM-12			G	N	WG
MCM-MCM-14			G	N	WG
MCM-MCM-15			G	N	WG

Chain of Custody Signatures

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
<i>[Signature]</i>	9/15/23	<i>[Signature]</i>	1036	

TAT Requested: Yes No
 Rush: Specify: (Subject to Surcharge)
 Fax Results: Yes No
 Select Deliverable: C of A QC Summary Level 1 Level 2 Level 3 Level 4
 Additional Remarks: Task Code: MCM-CCR-ASSMT-2023S2
 For Lab Receiving Use Only: Custody Seal Intact? Yes No Cooler Temp: °C
 Sample Collection Time Zone: Eastern Pacific Central Mountain Other:

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Faecal, N=Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B 7470A - 1)

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

RCRA Metals	Characteristic Hazards	Listed Waste	Other
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F, K, P and U-listed wastes.) Waste code(s):	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description:
Hg = Mercury Se = Selenium Ag = Silver	TSCA Regulated		
MR = Misc. RCRA metals	PCB = Polychlorinated biphenyls		

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

Dissolved Fe, Mn are the only Field Filtered Samples

GEL Laboratories, LLC
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

Chain of Custody and Analytical Request
GEL Work Order Number: Phone # _____
Client Name: Kristen Jurinko

Project/Site Name: Plant McManus CCR Groundwater Compliance Sept. 2023 Fax # _____
Address: 241 Ralph McGill Blvd. NE, Atlanta, GA 30308
Collected By: William Laaker, Meredith Duncane, Kevin Stephenson (Resolute Environmental)

Send Results To: kjurink@southemco.com;
 kevin.stephenson@resoluteenv.com; trent.godwin@resoluteenv.com

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (a)	Field Filtered (b)	Sample Matrix (c)	Should this sample be considered: (7) Known or possible hazards	Total Metals (App III & IV)	TDS/Anions	Radium 226/228	Metals (As, Fe Only)	Total Mn	Dissolved Mn	Dissolved Fe	Sulfide	Comments
MCM-MCM-16			G	N	WG										
MCM-MCM-17			G	N	WG										
MCM-MCM-18	09-14-23	1002	G	N	WG										
MCM-MCM-19			G	N	WG										
MCM-MCM-20			G	Y*	WG							X			
MCM-DPZ-02	09-14-23	1018	G	Y*	WG							X			
MCM-PT-01	09-14-23	1426	G	Y*	WG					X	X	X			
MCM-PT-02	09-14-23	1606	G	Y*	WG					X	X	X			
MCM-PT-03	09-14-23	1030	G	Y*	WG					X	X	X			
MCM-PT-04D	09-14-23	1149	G	Y*	WG					X	X	X			

Chain of Custody Signatures
 Relinquished By (Signed) _____ Date _____
 Received by (signed) _____ Date _____

1) *[Signature]* Date: 9/15/23 1030
 2) *[Signature]* Date:
 3)
For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

TAT Requested: Normal: _____ Rush: _____ Specify: _____ (Subject to Surcharge)
 Fax Results: [] Yes [] No
 Select Deliverable: [] C of A [] QC Summary [] Level 1 [] Level 2 [] Level 3 [] Level 4
 Additional Remarks: *MCM-CCR-ASSMT-202352*
For Lab Receiving Use Only: Custody Seal Intact? [] Yes [] No Cooler Temp: _____ °C
 Sample Collection Time Zone: [X] Eastern [] Pacific [] Central [] Mountain [] Other: _____

1.) Chain of Custody Number = Client Determined
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
 4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Faecal, N=Nasal
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B -3, 6010B/7470A - 1).
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank
 7.) **KNOWN OR POSSIBLE HAZARDS**

- RCRA Metals: As = Arsenic, Ba = Barium, Cd = Cadmium, Cr = Chromium, Pb = Lead
- Characteristic Hazards: FL = Flammable/Ignitable, CO = Corrosive, RE = Reactive
- Listed Waste: LW = Listed Waste (F, K, P and U-listed wastes.)
- Waste code(s): _____
- TSCA Regulated: PCB = Polychlorinated biphenyls
- MR = Misc. RCRA metals

Other: _____
 OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
 Description: _____

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

*Dissolved Fe, Mn are the only Field Filtered Samples *

Chain of Custody and Analytical Request
GEL Project Manager: Erin Trent

Client Name: Kristen Jurinko
 Project/Site Name: Plant McManus CCR Groundwater Compliance Sept. 2023
 Address: 241 Ralph McGill Blvd. NE, Atlanta, GA 30308
 Contacted By: William Laaker, Meredith Duncan, Kevin Stephenson (Resolute Environmental)
 Send Results To: kajurnk@southernco.com
 kevin.stephenson@resoluteenv.com; trent.godwin@resoluteenv.com

Sample ID <i>* For composites - indicate start and stop date/time</i>	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (a)	Field Filtered (b)	Sample Matrix (c)	Should this sample be considered:		Total number of containers	Sample Analysis Requested (6) (Fill in the number of containers for each test)										Comments				
						Radioactive (if isotopic info. yes, please supply)	(7) Known or possible hazards		NI	Total Metals (App III & IV)	TDS/Anions	Radium 226/228	Metals (As, Fe Only)	Total Mn	Dissolved Mn	Dissolved Fe	Sulfide	SH		Preservative Type (6)			
MCM-DR-01	09-14-23	1610	G	Y*	WG			4	X	X	X	X	X	X	X								Note: extra sample is required for sample specific QC
MCM-DR-02	09-14-23	1208	G	Y*	WG			4	X	X	X	X	X	X	X								
MCM-API-FD-01			FD		WG																		
MCM-API-FD-02			FD		WG																		
MCM-API-FD-03	09-14-23		FD	N	WG			5	X	X	X												
MCM-API-FB-03	09-14-23	1348	FB	N	WQ			5	X	X	X												
MCM-API-FB- 03			FB		WQ																		
MCM-API-EB- 02	09-14-23	1354	EB	N	WQ			5	X	X	X												
MCM-API-EB-			EB		WQ																		

Chain of Custody Signatures				TAT Requested: Normal: <input type="checkbox"/> Rush: <input type="checkbox"/> Specify: _____ (Subject to Surcharge)			
Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time	Fax Results:	<input type="checkbox"/> Yes <input type="checkbox"/> No
<i>[Signature]</i>	9/15/23	1030	<i>[Signature]</i>			Select Deliverable:	<input type="checkbox"/> Level 1 <input type="checkbox"/> Level 2 <input type="checkbox"/> Level 3 <input type="checkbox"/> Level 4
						Additional Remarks:	Task Code: MCM-CCR-ASSMT-2023S2
						For Lab Receiving Use Only: Custody Seal Intact?	<input type="checkbox"/> Yes <input type="checkbox"/> No Cooler Temp: <u>21</u> °C
						Sample Collection Time Zone:	<input checked="" type="checkbox"/> Eastern <input type="checkbox"/> Pacific <input type="checkbox"/> Central <input type="checkbox"/> Mountain <input type="checkbox"/> Other:

> For sample shipping and delivery details, see Sample Receipt & Review form (SRR).

1.) Chain of Custody Number = Client Determined
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
 4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urme, F=Fecal, N=Nasal
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B -3, 6010B/7470A - 1).
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank
 7.) **KNOWN OR POSSIBLE HAZARDS**

RCRA Metals	Characteristic Hazards	Listed Waste	Other
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F, K, P and U-listed wastes.) Waste code(s):	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description:
Hg = Mercury Se = Selenium Ag = Silver	TSCA Regulated PCB = Polychlorinated biphenyls		

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

Dissolved Fe, Mn are the only Field Filtered Samples

Page 2 of 3
 Project # GPCC00105
 GEL Quote #: GELP22-0819
 COC Number (1):
 PO Number:
 Client Name: Kristen Jurinko
 Phone #
 Fax #

GEL Work Order Number: **GEL Project Manager: Erin Trent**
 Project/Site Name: Plant McManus CCR Groundwater Compliance Sept. 2023
 Address: 241 Ralph McGill Blvd. NE, Atlanta, GA 30308
 Contacted By: William Laaker, Meredith Duncan, Kevin Stephenson (Resolute Environmental)
 Send Results To: kajurnik@southernco.com, kevin.stephenson@resoluteenv.com, trent.godwin@resoluteenv.com

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (a)	Field Filtered (b)	Sample Matrix (c)	Total number of containers	Should this sample be considered:	Sample Analysis Requested (5)	Comments
MCM-MCM-16	09-12-23	1302	G	N	WG	5	(7) Known or isotopic info) Yes, please supply (if Reductive)	Metals (As, Fe Only) Dissolved Mn Dissolved Fe Sulfide	Note: extra sample is required for sample specific QC
MCM-MCM-17			G	N	WG	5			
MCM-MCM-18			G	N	WG	5			
MCM-MCM-19			G	N	WG	5			
MCM-MCM-20			G	Y*	WG	7			
MCM-DPZ-02			G	Y*	WG	4			
MCM-PT-01			G	Y*	WG	4			
MCM-PT-02			G	Y*	WG	4			
MCM-PT-03			G	Y*	WG	4			
MCM-PT-04D			G	Y*	WG	4			

Chain of Custody Signatures

Relinquished By (Signed) _____ Date _____ Time _____
 Received by (signed) _____ Date _____ Time _____

1. *[Signature]* 9/15/23 1030
 2. *[Signature]*
 3. _____

TAT Requested: Normal: Rush: Specify: _____ (Subject to Surcharge)
 Fax Results: Yes No
 Select Deliverable: C of A QC Summary Level 1 Level 2 Level 3 Level 4
 Additional Remarks: **Task Code: MCM-CCR-ASSMT-2023\$2**
 For Lab Receiving Use Only: Custody Seal Intact? Yes No Cooler Temp: _____ °C
 Sample Collection Time Zone: Eastern Pacific Mountain Other: _____

> For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

1) Chain of Custody Number = Client Determined
 2) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
 3) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
 4) Matrix Codes: DW = Drinking Water, GW = Groundwater, SW = Surface Water, WW = Waste Water, W = Water, ML = Misc Liquid, SO = Soil, SD = Sediment, SL = Sludge, SS = Solid Waste, O = Oil, F = Filter, P = Wipe, U = Urine, F = Fecal, N = Nasal
 5) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).
 6) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank
 7) **KNOWN OR POSSIBLE HAZARDS**

RCRA Metals	Characteristic Hazards	Listed Waste	Other
As = Arsenic	FL = Flammable/Ignitable	LW = Listed Waste	OT = Other / Unknown
Ba = Barium	CO = Corrosive	(F, K, P and U-listed wastes.)	(i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
Cd = Cadmium	RE = Reactive	Waste code(s):	Description:
Cr = Chromium	TSCA Regulated	PCB = Polychlorinated biphenyls	
Pb = Lead			

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

Dissolved Fe, Mn are the only Field Filtered Samples

GEL Laboratories, LLC
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

Chain of Custody and Analytical Request
GEL Work Order Number: GEL Project Manager: Erin Trent

Client Name: Kristen Jurinko
 Project/Site Name: Plant McManus CCR Groundwater Compliance Sept. 2023
 Address: 241 Ralph McGill Blvd. NE, Atlanta, GA 30308
 Contacted By: William Laaker, Meredith Duncan, Kevin Stephenson (Resolute Environmental)
 Send Results To: kajurnnk@southernco.com; kevin.stephenson@resoluteenv.com; trent.godwin@resoluteenv.com

Sample ID: MCM-DR-01
 MCM-DR-02
 MCM-API-FD-01
 MCM-API-FD-02
 MCM-API-FD-03
 MCM-API-FB-01
 MCM-API-FB-02
 MCM-API-FB-03
 MCM-API-FB-01
 MCM-API-FB-02
 MCM-API-FB-01
 MCM-API-FB-01

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Total number of containers	Should this sample be considered:	Sample Analysis Requested (5)	(Fill in the number of containers for each test)
MCM-DR-01			G	Y*	WG	4	(7) Known or possible hazards	NI	SH
MCM-DR-02			G	Y*	WG	4		NI	NI
MCM-API-FD-01			FD		WG			NI	NI
MCM-API-FD-02	9/13/23		FD	N	WG	5		NI	NI
MCM-API-FD-03			FD		WG			NI	NI
MCM-API-FB-01			FB		WQ			NI	NI
MCM-API-FB-02	9/13/23	1726	FB	N	WQ	5		NI	NI
MCM-API-FB-01			EB		WQ			NI	NI
MCM-API-FB-01	9/13/23	1738	EB	N	WQ	5		NI	NI

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample Analysis Requested (5)	Total number of containers	Should this sample be considered:	Sample Analysis Requested (5)	(Fill in the number of containers for each test)
NI	4	(7) Known or possible hazards	NI	SH
NI	4		NI	NI
NI			NI	NI
NI	5		NI	NI
NI			NI	NI
NI	5		NI	NI
NI			NI	NI
NI	5		NI	NI
NI			NI	NI

Chain of Custody Signatures

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
<i>[Signature]</i>	9/15/23	<i>[Signature]</i>	1030	

TAT Requested: Normal: Rush: Specify: (Subject to Surcharge)

Fax Results: [] Yes [] No
 Select Deliverable: [] C of A [] QC Summary [] Level 1 [] Level 2 [] Level 3 [] Level 4
 Additional Remarks: Task Code: MCM-CCR-ASSMT-2023S2
 For Lab Receiving Use Only: Custody Seal Intact? [] Yes [] No Cooler Temp: °C
 Sample Collection Time Zone: [X] Eastern [] Pacific [] Central [] Mountain [] Other:

> For sample shipping and delivery details, see Sample Receipt & Review form (SRR).

- Chain of Custody Number = Client Determined
- QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
- Field Filtered: For liquid matrices, indicate with a - Y - for yes, the sample was field filtered or - N - for sample was not field filtered.
- Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc. Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal
- Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).
- Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank
- KNOWN OR POSSIBLE HAZARDS

RCRA Metals	As = Arsenic	Hg = Mercury	Sb = Barium	Se = Selenium	Ag = Silver
Cr = Chromium	MR = Misc. RCRA metals	Pb = Lead			
- Characteristic Hazards

FL = Flammable/ignitable	CO = Corrosive	RE = Reactive
LW = Listed Waste	(F, K, P and U-listed wastes.)	Waste code(s):
- Other

OT = Other / Unknown	(i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
Description:	

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

Dissolved Fe, Mn are the only Field Filtered Samples

GEL Laboratories, LLC
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

Client Name: Kristen Jurinko Phone # _____
 Project/Site Name: Plant McManus CCR Groundwater Compliance Sept. 2023 Fax # _____
 Address: 241 Ralph McGill Blvd. NE, Atlanta, GA 30308
 Contacted By: William Laaker, Meredith Duncan, Kevin Stephenson (Resolute Environmental) Send Results To: kjurinko@southernco.com, kevin.stephenson@resoluteenv.com, trent.godwin@resoluteenv.com

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (a)	Field Filtered (b)	Sample Matrix (c)	Should this sample be considered:		Sample Analysis Requested (e) (Fill in the number of containers for each test)										Comments								
						Radionuclide (f) yes, please supply isotopic info)	(7) Known or possible hazards	Total number of containers	NI	Total Metals (App III & IV)	TDS/Anions	Radium 226/228	Metals (As, Fe Only)	NI	Total Mn	Dissolved Mn	Dissolved Fe		Sulfide	SH	Preservative Type (6)					
MCM-DR-01			G	Y*	WG			4	X	X	X	X	X	X	X	X	X									
MCM-DR-02			G	Y*	WG			4	X	X	X	X	X	X	X	X	X									
MCM-API-FD-01	09-12-23		FD	N	WG			5	X	X	X	X	X	X	X	X	X									
MCM-API-FD-02			FD		WG																					
MCM-API-FD-03			FD		WG																					
MCM-API-FB-1	09-12-23	1535	FB	N	WQ			5	X	X	X	X	X	X	X	X	X									
MCM-API-FB-			FB		WQ																					
MCM-API-EB-			EB		WQ																					
MCM-API-EB-			EB		WQ																					

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>[Signature]</i>	9/15/23	1030	<i>[Signature]</i>		

TAT Requested: Normal: _____ Rush: _____ Specify: _____ (Subject to Surcharge)

Fax Results: Yes No

Select Deliverable: C of A QC Summary Level 1 Level 2 Level 3 Level 4

Additional Remarks: Task Code: MCM-CCR-ASSMT-2023S2

For Lab Receiving Use Only: Custody Seal Intact? Yes No Cooler Temp: _____ °C

Sample Collection Time Zone: Eastern Pacific Central Mountain Other:

For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

1.) Chain of Custody Number = Client Determined
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 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).
 6.) Preservative Type HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

7.) KNOWN OR POSSIBLE HAZARDS

RCRA Metals	Characteristic Hazards	Listed Waste	Other
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/Ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F, K, P and U-listed wastes.) Waste code(s): _____	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

Dissolved Fe, Mn are the only Field Filtered Samples

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (a)	Field Filtered (b)	Sample Matrix (c)	Should this sample be considered:		Sample Analysis Requested (5) (Fill in the number of containers for each test)										Comments					
						(f) Radioactive (if Yes, please supply isotopic info.)	(g) Known or possible Hazards	NI	Total Metals (App III & IV)	TDS/Anions	Radium 226/228	Metals (As, Fe Only)	Total Mn	Dissolved Mn	Dissolved Fe	Sulfide	SH		Preservative Type (6)				
305			G	Y*	WG			4	*	*	*	*	*	*	*	*							Note: extra sample is required for sample specific QC
			G	Y*	WG			4	*	*	*	*	*	*	*	*							
			FD		WG																		
			FD		WG																		
			FD		WG																		
			PB		WQ																		
			PB		WQ																		
			PB		WQ																		
			PB		WQ																		
PW	9/14/23	1242	G	N	WG			5	X	X	X												

Chain of Custody Signatures

Relinquished By (Signed) _____ Date _____ Time _____
 Received by (signed) _____ Date _____ Time _____

1. *[Signature]* 9/15/23 1030
 2. *[Signature]*
 3. _____

TAT Requested: Normal: _____ Rush: _____ Specify: _____ (Subject to Surcharge)

Fax Results: Yes No

Select Deliverable: C of A QC Summary Level 1 Level 2 Level 3 Level 4

Additional Remarks: **Task Code: MCM-CCR-ASSMT-2023S2**

For Lab Receiving Use Only: Custody Seal Intact? Yes No Cooler Temp: _____ °C

Sample Collection Time Zone: Eastern Pacific Central Mountain Other:

> For sample shipping and delivery details, see Sample Receipt & Review form (SRR).

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

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4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urme, F=Feecal, N=Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1)

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

RCRA Metals
 As = Arsenic Hg = Mercury
 Ba = Barium Se = Selenium
 Cd = Cadmium Ag = Silver
 Cr = Chromium MR = Misc. RCRA metals
 Pb = Lead

Characteristic Hazards
 FL = Flammable/Ignitable
 CO = Corrosive
 RE = Reactive

Listed Waste
 LW = Listed Waste
 (F, K, P and U-listed wastes.)

Waste code(s):

TSCA Regulated
 PCB = Polychlorinated biphenyls

Other
 OT = Other / Unknown
 (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)

Description:

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

Dissolved Fe, Mn are the only Field Filtered Samples

637334

SAMPLE RECEIPT & REVIEW FORM

637305 637268

Client: <u>GPCC</u>		SDG/AR/COC/Work Order:		
Received By: <u>QG</u>		Date Received: <u>9/15/23</u>		
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier <u>Other</u>		
		<u>client drop off</u>		
Suspected Hazard Information	Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.	
A) Shipped as a DOT Hazardous?			Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___	
B) Did the client designate the samples are to be received as radioactive?			COC notation or radioactive stickers on containers equal client designation.	
C) Did the RSO classify the samples as radioactive?			Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM/mR/Hr Classified as: Rad 1 Rad 2 Rad 3	
D) Did the client designate samples are hazardous?			COC notation or hazard labels on containers equal client designation.	
E) Did the RSO identify possible hazards?			*If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other: _____	
Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>			Circle Applicable: Client contacted and provided COC COC created upon receipt
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>			Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice <u>None</u> Other: _____ *all temperatures are recorded in Celsius TEMP: <u>3°C</u>
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>			Temperature Device Serial #: <u>IR1-23</u> Secondary Temperature Device Serial # (If Applicable): _____
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>			Sample ID's and Containers Affected: _____ If Preservation added, Lot#: _____
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>			If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected: _____
8 Samples received within holding time?	<input checked="" type="checkbox"/>			ID's and tests affected: _____
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>			ID's and containers affected: _____
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>			Circle Applicable: No container count on COC Other (describe)
12 Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>			
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>			Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed):				

PM (or PMA) review: Initials AT Date 9/19/23 Page 1 of 1

List of current GEL Certifications as of 13 October 2023

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-00651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	KY90129
Kentucky Wastewater	KY90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2023019
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122024-04
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-23-21
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

 **ANALYTICAL REPORT****PREPARED FOR**

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

Generated 9/19/2023 5:09:18 PM

JOB DESCRIPTION

Plant McManus

JOB NUMBER

680-240338-1

Eurofins Savannah

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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



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9/19/2023 5:09:18 PM

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

Job ID: 680-240338-1

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

Job ID: 680-240338-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-240338-1	MCM-MCM-06	Water	09/14/23 14:32	09/15/23 10:55
680-240338-2	MCM-DPZ-02	Water	09/14/23 10:18	09/15/23 10:55
680-240338-3	MCM-PT-01	Water	09/14/23 14:26	09/15/23 10:55
680-240338-4	MCM-PT-02	Water	09/14/23 16:06	09/15/23 10:55
680-240338-5	MCM-PT-03	Water	09/14/23 10:30	09/15/23 10:55
680-240338-6	MCM-PT-04D	Water	09/14/23 11:49	09/15/23 10:55
680-240338-7	MCM-DR-01	Water	09/14/23 16:10	09/15/23 10:55
680-240338-8	MCM-DR-02	Water	09/14/23 12:08	09/15/23 10:55

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Case Narrative

Client: Southern Company
Project/Site: Plant McManus

Job ID: 680-240338-1

Job ID: 680-240338-1

Laboratory: Eurofins Savannah

Narrative

**Job Narrative
680-240338-1**

Receipt

The samples were received on 9/15/2023 10:55 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 1.2°C and 2.2°C

General Chemistry

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

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Client Sample Results

Client: Southern Company
Project/Site: Plant McManus

Job ID: 680-240338-1

Client Sample ID: MCM-MCM-06

Lab Sample ID: 680-240338-1

Date Collected: 09/14/23 14:32

Matrix: Water

Date Received: 09/15/23 10:55

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	23		0.81	0.81	mg/L			09/19/23 09:57	1

Client Sample ID: MCM-DPZ-02

Lab Sample ID: 680-240338-2

Date Collected: 09/14/23 10:18

Matrix: Water

Date Received: 09/15/23 10:55

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	20		0.81	0.81	mg/L			09/19/23 09:57	1

Client Sample ID: MCM-PT-01

Lab Sample ID: 680-240338-3

Date Collected: 09/14/23 14:26

Matrix: Water

Date Received: 09/15/23 10:55

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	14		0.81	0.81	mg/L			09/19/23 09:57	1

Client Sample ID: MCM-PT-02

Lab Sample ID: 680-240338-4

Date Collected: 09/14/23 16:06

Matrix: Water

Date Received: 09/15/23 10:55

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	7.3		0.81	0.81	mg/L			09/19/23 09:57	1

Client Sample ID: MCM-PT-03

Lab Sample ID: 680-240338-5

Date Collected: 09/14/23 10:30

Matrix: Water

Date Received: 09/15/23 10:55

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	19		0.83	0.83	mg/L			09/19/23 09:57	1

Client Sample ID: MCM-PT-04D

Lab Sample ID: 680-240338-6

Date Collected: 09/14/23 11:49

Matrix: Water

Date Received: 09/15/23 10:55

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	20		0.81	0.81	mg/L			09/19/23 09:57	1

Client Sample ID: MCM-DR-01

Lab Sample ID: 680-240338-7

Date Collected: 09/14/23 16:10

Matrix: Water

Date Received: 09/15/23 10:55

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	18		0.81	0.81	mg/L			09/19/23 09:57	1

Client Sample Results

Client: Southern Company
Project/Site: Plant McManus

Job ID: 680-240338-1

Client Sample ID: MCM-DR-02

Lab Sample ID: 680-240338-8

Date Collected: 09/14/23 12:08

Matrix: Water

Date Received: 09/15/23 10:55

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	18		0.81	0.81	mg/L			09/19/23 09:57	1

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QC Sample Results

Client: Southern Company
Project/Site: Plant McManus

Job ID: 680-240338-1

Method: 4500 S2 F-2011 - Sulfide, Total

Lab Sample ID: MB 680-798529/1
Matrix: Water
Analysis Batch: 798529

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			09/19/23 09:57	1

Lab Sample ID: LCS 680-798529/2
Matrix: Water
Analysis Batch: 798529

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	10.1		mg/L		101	75 - 125

Lab Sample ID: LCSD 680-798529/3
Matrix: Water
Analysis Batch: 798529

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	8.33		mg/L		83	75 - 125	19	30

Lab Sample ID: 680-240260-C-5 MSD
Matrix: Water
Analysis Batch: 798529

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
Sulfide	<0.83		6.94	6.14		mg/L					

Lab Sample ID: 680-240260-D-5 MS
Matrix: Water
Analysis Batch: 798529

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
Sulfide	<0.83		6.94	6.14		mg/L		89	75 - 125

Lab Sample ID: 680-240260-D-1 DU
Matrix: Water
Analysis Batch: 798529

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfide	<0.83		<0.81		mg/L		NC	30

QC Association Summary

Client: Southern Company
Project/Site: Plant McManus

Job ID: 680-240338-1

General Chemistry

Analysis Batch: 798529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-240338-1	MCM-MCM-06	Total/NA	Water	4500 S2 F-2011	
680-240338-2	MCM-DPZ-02	Total/NA	Water	4500 S2 F-2011	
680-240338-3	MCM-PT-01	Total/NA	Water	4500 S2 F-2011	
680-240338-4	MCM-PT-02	Total/NA	Water	4500 S2 F-2011	
680-240338-5	MCM-PT-03	Total/NA	Water	4500 S2 F-2011	
680-240338-6	MCM-PT-04D	Total/NA	Water	4500 S2 F-2011	
680-240338-7	MCM-DR-01	Total/NA	Water	4500 S2 F-2011	
680-240338-8	MCM-DR-02	Total/NA	Water	4500 S2 F-2011	
MB 680-798529/1	Method Blank	Total/NA	Water	4500 S2 F-2011	
LCS 680-798529/2	Lab Control Sample	Total/NA	Water	4500 S2 F-2011	
LCSD 680-798529/3	Lab Control Sample Dup	Total/NA	Water	4500 S2 F-2011	
680-240260-C-5 MSD	Matrix Spike Duplicate	Total/NA	Water	4500 S2 F-2011	
680-240260-D-5 MS	Matrix Spike	Total/NA	Water	4500 S2 F-2011	
680-240260-D-1 DU	Duplicate	Total/NA	Water	4500 S2 F-2011	

Lab Chronicle

Client: Southern Company
Project/Site: Plant McManus

Job ID: 680-240338-1

Client Sample ID: MCM-MCM-06

Lab Sample ID: 680-240338-1

Date Collected: 09/14/23 14:32

Matrix: Water

Date Received: 09/15/23 10:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	798529	09/19/23 09:57	JAS	EET SAV
Instrument ID: NoEquip										

Client Sample ID: MCM-DPZ-02

Lab Sample ID: 680-240338-2

Date Collected: 09/14/23 10:18

Matrix: Water

Date Received: 09/15/23 10:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	798529	09/19/23 09:57	JAS	EET SAV
Instrument ID: NoEquip										

Client Sample ID: MCM-PT-01

Lab Sample ID: 680-240338-3

Date Collected: 09/14/23 14:26

Matrix: Water

Date Received: 09/15/23 10:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	798529	09/19/23 09:57	JAS	EET SAV
Instrument ID: NoEquip										

Client Sample ID: MCM-PT-02

Lab Sample ID: 680-240338-4

Date Collected: 09/14/23 16:06

Matrix: Water

Date Received: 09/15/23 10:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	798529	09/19/23 09:57	JAS	EET SAV
Instrument ID: NoEquip										

Client Sample ID: MCM-PT-03

Lab Sample ID: 680-240338-5

Date Collected: 09/14/23 10:30

Matrix: Water

Date Received: 09/15/23 10:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	4500 S2 F-2011		1	300 mL	300 mL	798529	09/19/23 09:57	JAS	EET SAV
Instrument ID: NoEquip										

Client Sample ID: MCM-PT-04D

Lab Sample ID: 680-240338-6

Date Collected: 09/14/23 11:49

Matrix: Water

Date Received: 09/15/23 10:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	798529	09/19/23 09:57	JAS	EET SAV
Instrument ID: NoEquip										

Lab Chronicle

Client: Southern Company
Project/Site: Plant McManus

Job ID: 680-240338-1

Client Sample ID: MCM-DR-01

Lab Sample ID: 680-240338-7

Date Collected: 09/14/23 16:10

Matrix: Water

Date Received: 09/15/23 10:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	798529	09/19/23 09:57	JAS	EET SAV
Instrument ID: NoEquip										

Client Sample ID: MCM-DR-02

Lab Sample ID: 680-240338-8

Date Collected: 09/14/23 12:08

Matrix: Water

Date Received: 09/15/23 10:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	798529	09/19/23 09:57	JAS	EET SAV
Instrument ID: NoEquip										

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Southern Company
Project/Site: Plant McManus

Job ID: 680-240338-1

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Georgia	State	E87052	06-30-24

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Method Summary

Client: Southern Company
Project/Site: Plant McManus

Job ID: 680-240338-1

Method	Method Description	Protocol	Laboratory
4500 S2 F-2011	Sulfide, Total	SM	EET SAV

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:


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

Client Information		Sampler: <u>William Laker, Meredith Duncan</u>		Lab PM: <u>Fuller, David</u>		Carrier Tracking No(s):		COC No: <u>680-149084-53989.1</u>					
Client Contact: <u>Kristen Jurinko</u>		Phone:		E-Mail: <u>David.Fuller@et.eurofinsus.com</u>		State of Origin: <u>GA</u>		Page: <u> </u> of <u> </u>					
Company: <u>Southern Company</u>		PWSID:		Analysis Requested						Job #:			
Address: <u>241 Ralph McGill Blvd SE B10185</u>		Due Date Requested:		 680-240338 Chain of Custody						Preservation Codes:			
City: <u>Atlanta</u>		TAT Requested (days): <u>Standard</u>								Total Number of containers			
State, Zip: <u>GA, 30308</u>		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No								Special Instructions/Note:			
Phone: <u>404-506-7116(Tel)</u>		Lab Project #: (DO NOT REMOVE) <u>68027841</u>								A - HCL		M - Hexane	
Email: <u>KNJURINK@SOUTHERNCO.COM</u>		Lab PO #: <u>GPC82130-0001</u>								B - NaOH		N - None	
Project Name: <u>Plant McManus - Supplemental</u>		Project #:		C - Zn Acetate		O - AsNaO2							
Site: <u> </u>		SSOW#:		D - Nitric Acid		P - Na2O4S							
				E - NaHSO4		Q - Na2SO3							
				F - MeOH		R - Na2S2O3							
				G - Amchlor		S - H2SO4							
				H - Ascorbic Acid		T - TSP Dodecahydrate							
				I - Ice		U - Acetone							
				J - DI Water		V - MCAA							
				K - EDTA		W - pH 4-5							
				L - EDA		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)	SM4500_S2_F - sulfide (FILL COMPLETELY)	Total Number of containers	Special Instructions/Note:
				Preservation Code:	X	X	CB		
MCM-MCM-06	9/14/23	1432	G	WG	N	X		2	
MCM-DPZ-02	9/14/23	1018	G	WG	N	X		2	
MCM-PT-01	9/14/23	1426	G	WG	N	X		2	
MCM-PT-02	9/14/23	1606	G	WG	N	X		2	
MCM-PT-03	9/14/23	1030	G	WG	N	X		2	
MCM-PT-04D	9/14/23	1149	G	WG	N	X		2	
MCM-DR-01	9/14/23	1610	G	WG	N	X		2	
MCM-DR-02	9/14/23	1208	G	WG	N	X		2	

Possible Hazard Identification				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <u> </u> Months			
Deliverable Requested: I, II, III, IV, Other (specify)				Special Instructions/QC Requirements:			
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by: <u>Meredith Duncan</u>		Date/Time: <u>9/15/23 0850</u>		Company:		Received by:	
Relinquished by:		Date/Time:		Company:		Received by:	
Relinquished by:		Date/Time:		Company:		Received by: <u>C. Munro</u>	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: <u>1.1/1.2 2.1/2.2</u>		Date/Time: <u>9/15/23 0850</u> <u>Eurofins</u>	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 680-240338-1

Login Number: 240338

List Number: 1

Creator: Johnson, Corey M

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	

December 19, 2023

Kristen Jurinko
Georgia Power Company
241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308

Re: Plant McManus CCR Groundwater Compliance GW
Work Order: 647813

Dear Kristen Jurinko:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on December 07, 2023. This original data report has been prepared and reviewed in accordance with GEL’s standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt. The laboratory received the following sample(s):

<u>Laboratory ID</u>	<u>Client ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Recieved</u>
647813001	MCM-MCM-06	Ground Water	06/12/23 16:30	07/12/23 09:35
647813002	MCM-DPZ-2	Ground Water	06/12/23 10:10	07/12/23 09:35
647813003	MCM-PT-01	Ground Water	06/12/23 14:35	07/12/23 09:35
647813004	MCM-PT-02	Ground Water	06/12/23 12:08	07/12/23 09:35
647813005	MCM-PT-03	Ground Water	06/12/23 10:39	07/12/23 09:35
647813006	MCM-PT-04D	Ground Water	06/12/23 11:38	07/12/23 09:35
647813007	MCM-DR-01	Ground Water	06/12/23 15:40	07/12/23 09:35
647813008	MCM-DR-02	Ground Water	06/12/23 14:46	07/12/23 09:35
647813009	MCM-MCM-20	Ground Water	06/12/23 16:38	07/12/23 09:35
647813010	MCM-AP1-FD-01	Ground Water	06/12/23 12:00	07/12/23 09:35
647813011	MCM-AP1-FB-1	Ground Water	06/12/23 17:30	07/12/23 09:35
647813012	MCM-AP1-EB-1	Ground Water	06/12/23 17:38	07/12/23 09:35
647813013	MCM-MCM-06	Ground Water	06/12/23 16:30	07/12/23 09:35
647813014	MCM-DPZ-2	Ground Water	06/12/23 10:10	07/12/23 09:35
647813015	MCM-PT-01	Ground Water	06/12/23 14:35	07/12/23 09:35



647813016	MCM-PT-02	Ground Water	06/12/23 12:08	07/12/23 09:35
647813017	MCM-PT-03	Ground Water	06/12/23 10:39	07/12/23 09:35
647813018	MCM-PT-04D	Ground Water	06/12/23 11:38	07/12/23 09:35
647813019	MCM-DR-01	Ground Water	06/12/23 15:40	07/12/23 09:35
647813020	MCM-DR-02	Ground Water	06/12/23 14:46	07/12/23 09:35
647813021	MCM-MCM-20	Ground Water	06/12/23 16:38	07/12/23 09:35
647813022	MCM-API-FD-01	Ground Water	06/12/23 12:00	07/12/23 09:35

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Prep Methods and Prep Dates

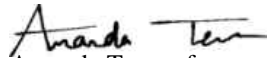
<u>Method</u>	<u>Run Date ID</u>
SW846 3005A	08-DEC-2023

Analysis Methods and Analysis Dates

<u>Method</u>	<u>Run Date ID</u>
EPA 300.0	07-DEC-2023
EPA 300.0	08-DEC-2023
SM 2320B	11-DEC-2023
SM 2540C	08-DEC-2023
SM 2540C	11-DEC-2023
SW846 3005A/6020B	14-DEC-2023
SW846 3005A/6020B	15-DEC-2023
SW846 3005A/6020B	16-DEC-2023

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

A handwritten signature in black ink that reads "Amanda Turner". The signature is written in a cursive style with a horizontal line extending to the right from the end of the name.

Amanda Turner for
Erin Trent
Project Manager

Purchase Order: GPC82177-0007
Enclosures

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 647813 GEL Work Order: 647813

The Qualifiers in this report are defined as follows:

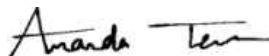
- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- N/A RPD or %Recovery limits do not apply.
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: December 19, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-06 Project: GPCC00105
Sample ID: 647813001 Client ID: GPCC001
Matrix: WG
Collect Date: 06-DEC-23 16:30
Receive Date: 07-DEC-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		1970	26.8	80.0	mg/L		400	LXA2	12/08/23	0107	2536861	1
Sulfate		258	53.2	160	mg/L		400					
Fluoride	J	1.10	0.165	4.00	mg/L		5	LXA2	12/07/23	1551	2536861	2
Nitrate-N	U	ND	0.165	0.500	mg/L		5					
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic		0.0581	0.00200	0.0100	mg/L	1.00	1	PRB	12/14/23	2022	2536845	3
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Manganese		0.0708	0.00100	0.00500	mg/L	1.00	1					
Magnesium		135	0.500	1.50	mg/L	1.00	50	PRB	12/15/23	1016	2536845	4
Potassium		66.3	4.00	15.0	mg/L	1.00	50					
Sodium		1250	4.00	12.5	mg/L	1.00	50					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		3780	23.8	100	mg/L			CH6	12/08/23	1458	2537354	5
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		276	0.725	2.00	mg/L			JW2	12/11/23	1411	2538452	6
Bicarbonate alkalinity (CaCO3)		276	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	12/08/23	0715	2536843

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SM 2540C	
6	SM 2320B	

Notes:

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: December 19, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID:	MCM-MCM-06	Project:	GPCC00105
Sample ID:	647813001	Client ID:	GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: December 19, 2023

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-DPZ-2	Project: GPCC00105
Sample ID: 647813002	Client ID: GPCC001
Matrix: WG	
Collect Date: 06-DEC-23 10:10	
Receive Date: 07-DEC-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Nitrate-N	U	ND	0.165	0.500	mg/L		5	LXA2	12/07/23	1317	2536861	1
Sulfate		761	13.3	40.0	mg/L		100	LXA2	12/08/23	0240	2536861	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic	J	0.0189	0.0100	0.0250	mg/L	1.00	5	PRB	12/15/23	1023	2536845	3
Iron	U	ND	0.0330	0.100	mg/L	1.00	1	PRB	12/14/23	2037	2536845	4
Manganese		0.180	0.00100	0.00500	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		12200	23.8	100	mg/L			CH6	12/08/23	1458	2537354	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	12/08/23	0715	2536843

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SM 2540C	

Notes:

Column headers are defined as follows:

- | | |
|---------------------------------------|--------------------------------|
| DF: Dilution Factor | Lc/LC: Critical Level |
| DL: Detection Limit | PF: Prep Factor |
| MDA: Minimum Detectable Activity | RL: Reporting Limit |
| MDC: Minimum Detectable Concentration | SQL: Sample Quantitation Limit |

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: December 19, 2023

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-PT-01	Project: GPCC00105
Sample ID: 647813003	Client ID: GPCC001
Matrix: WG	
Collect Date: 06-DEC-23 14:35	
Receive Date: 07-DEC-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		177	1.33	4.00	mg/L		10	LXA2	12/08/23	0310	2536861	1
Nitrate-N	U	ND	0.165	0.500	mg/L		5	LXA2	12/07/23	1622	2536861	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic		0.0135	0.00200	0.0100	mg/L	1.00	1	PRB	12/14/23	2040	2536845	3
Iron		0.140	0.0330	0.100	mg/L	1.00	1					
Manganese		0.0877	0.00100	0.00500	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		3990	23.8	100	mg/L			CH6	12/08/23	1458	2537354	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	12/08/23	0715	2536843

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 3005A/6020B	
4	SM 2540C	

Notes:

Column headers are defined as follows:

- | | |
|---------------------------------------|--------------------------------|
| DF: Dilution Factor | Lc/LC: Critical Level |
| DL: Detection Limit | PF: Prep Factor |
| MDA: Minimum Detectable Activity | RL: Reporting Limit |
| MDC: Minimum Detectable Concentration | SQL: Sample Quantitation Limit |

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Certificate of Analysis

Report Date: December 19, 2023

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-PT-02	Project: GPCC00105
Sample ID: 647813004	Client ID: GPCC001
Matrix: WG	
Collect Date: 06-DEC-23 12:08	
Receive Date: 07-DEC-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		160	1.33	4.00	mg/L		10	LXA2	12/08/23	0341	2536861	1
Nitrate-N	U	ND	0.165	0.500	mg/L		5	LXA2	12/07/23	1348	2536861	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic		0.0283	0.00200	0.0100	mg/L	1.00	1	PRB	12/14/23	2048	2536845	3
Iron	J	0.0652	0.0330	0.100	mg/L	1.00	1					
Manganese		0.0687	0.00100	0.00500	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		3700	23.8	100	mg/L			CH6	12/08/23	1458	2537354	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	12/08/23	0715	2536843

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 3005A/6020B	
4	SM 2540C	

Notes:

Column headers are defined as follows:

- | | |
|---------------------------------------|--------------------------------|
| DF: Dilution Factor | Lc/LC: Critical Level |
| DL: Detection Limit | PF: Prep Factor |
| MDA: Minimum Detectable Activity | RL: Reporting Limit |
| MDC: Minimum Detectable Concentration | SQL: Sample Quantitation Limit |

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Certificate of Analysis

Report Date: December 19, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-PT-03 Project: GPCC00105
Sample ID: 647813005 Client ID: GPCC001
Matrix: WG
Collect Date: 06-DEC-23 10:39
Receive Date: 07-DEC-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Nitrate-N	U	ND	0.165	0.500	mg/L		5	LXA2	12/07/23	1419	2536861	1
Sulfate		213	2.66	8.00	mg/L		20	LXA2	12/08/23	0412	2536861	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic		0.0665	0.00200	0.0100	mg/L	1.00	1	PRB	12/14/23	2051	2536845	3
Iron		0.290	0.0330	0.100	mg/L	1.00	1					
Manganese		0.0645	0.00100	0.00500	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		3480	23.8	100	mg/L			CH6	12/08/23	1458	2537354	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	12/08/23	0715	2536843

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	EPA 300.0		
2	EPA 300.0		
3	SW846 3005A/6020B		
4	SM 2540C		

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: December 19, 2023

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-PT-04D	Project: GPCC00105
Sample ID: 647813006	Client ID: GPCC001
Matrix: WG	
Collect Date: 06-DEC-23 11:38	
Receive Date: 07-DEC-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Nitrate-N	U	ND	0.165	0.500	mg/L		5	LXA2	12/07/23	1450	2536861	1
Sulfate		543	6.65	20.0	mg/L		50	LXA2	12/08/23	0443	2536861	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic	J	0.0188	0.0100	0.0250	mg/L	1.00	5	PRB	12/15/23	1024	2536845	3
Iron	U	ND	0.0330	0.100	mg/L	1.00	1	PRB	12/14/23	2054	2536845	4
Manganese		0.114	0.00100	0.00500	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		9380	23.8	100	mg/L			CH6	12/08/23	1458	2537354	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	12/08/23	0715	2536843

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SM 2540C	

Notes:

Column headers are defined as follows:

- | | |
|---------------------------------------|--------------------------------|
| DF: Dilution Factor | Lc/LC: Critical Level |
| DL: Detection Limit | PF: Prep Factor |
| MDA: Minimum Detectable Activity | RL: Reporting Limit |
| MDC: Minimum Detectable Concentration | SQL: Sample Quantitation Limit |

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: December 19, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-DR-01 Project: GPCC00105
Sample ID: 647813007 Client ID: GPCC001
Matrix: WG
Collect Date: 06-DEC-23 15:40
Receive Date: 07-DEC-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Nitrate-N	U	ND	0.165	0.500	mg/L		5	LXA2	12/07/23	1653	2536861	1
Sulfate		189	2.66	8.00	mg/L		20	LXA2	12/08/23	1319	2536861	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic		0.0271	0.00200	0.0100	mg/L	1.00	1	PRB	12/14/23	2057	2536845	3
Iron	J	0.0474	0.0330	0.100	mg/L	1.00	1					
Manganese		0.0519	0.00100	0.00500	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		4190	23.8	100	mg/L			CH6	12/08/23	1458	2537354	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	12/08/23	0715	2536843

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	EPA 300.0		
2	EPA 300.0		
3	SW846 3005A/6020B		
4	SM 2540C		

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: December 19, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-DR-02 Project: GPCC00105
Sample ID: 647813008 Client ID: GPCC001
Matrix: WG
Collect Date: 06-DEC-23 14:46
Receive Date: 07-DEC-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Nitrate-N	U	ND	0.165	0.500	mg/L		5	LXA2	12/07/23	1724	2536861	1
Sulfate		296	2.66	8.00	mg/L		20	LXA2	12/08/23	1350	2536861	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic		0.0305	0.00200	0.0100	mg/L	1.00	1	PRB	12/14/23	2100	2536845	3
Iron		0.201	0.0330	0.100	mg/L	1.00	1					
Manganese		0.0631	0.00100	0.00500	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		4820	23.8	100	mg/L			CH6	12/08/23	1458	2537354	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	12/08/23	0715	2536843

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 3005A/6020B	
4	SM 2540C	

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: December 19, 2023

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-20	Project: GPCC00105
Sample ID: 647813009	Client ID: GPCC001
Matrix: WG	
Collect Date: 06-DEC-23 16:38	
Receive Date: 07-DEC-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Nitrate-N	U	ND	0.660	2.00	mg/L		20	LXA2	12/07/23	1755	2536861	1
Sulfate		917	6.65	20.0	mg/L		50	LXA2	12/08/23	1421	2536861	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Iron		102	0.165	0.500	mg/L	1.00	5	PRB	12/16/23	1303	2536845	3
Manganese		0.0557	0.00100	0.00500	mg/L	1.00	1	PRB	12/14/23	2102	2536845	4
Arsenic		0.0257	0.0100	0.0250	mg/L	1.00	5	PRB	12/15/23	1025	2536845	5
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		11400	23.8	100	mg/L			CH6	12/08/23	1458	2537354	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	12/08/23	0715	2536843

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	EPA 300.0		
2	EPA 300.0		
3	SW846 3005A/6020B		
4	SW846 3005A/6020B		
5	SW846 3005A/6020B		
6	SM 2540C		

Notes:

Column headers are defined as follows:

- | | |
|---------------------------------------|--------------------------------|
| DF: Dilution Factor | Lc/LC: Critical Level |
| DL: Detection Limit | PF: Prep Factor |
| MDA: Minimum Detectable Activity | RL: Reporting Limit |
| MDC: Minimum Detectable Concentration | SQL: Sample Quantitation Limit |

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Report Date: December 19, 2023

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-FD-01	Project: GPCC00105
Sample ID: 647813010	Client ID: GPCC001
Matrix: WG	
Collect Date: 06-DEC-23 12:00	
Receive Date: 07-DEC-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Nitrate-N	U	ND	0.165	0.500	mg/L		5	LXA2	12/07/23	1520	2536861	1
Sulfate		750	13.3	40.0	mg/L		100	LXA2	12/08/23	1553	2536861	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Iron	U	ND	0.0330	0.100	mg/L	1.00	1	PRB	12/14/23	2105	2536845	3
Manganese		0.186	0.00100	0.00500	mg/L	1.00	1					
Arsenic	J	0.0201	0.0100	0.0250	mg/L	1.00	5	PRB	12/15/23	1026	2536845	4
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		12100	23.8	100	mg/L			CH6	12/08/23	1458	2537354	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	12/08/23	0715	2536843

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SM 2540C	

Notes:

Column headers are defined as follows:

- | | |
|---------------------------------------|--------------------------------|
| DF: Dilution Factor | Lc/LC: Critical Level |
| DL: Detection Limit | PF: Prep Factor |
| MDA: Minimum Detectable Activity | RL: Reporting Limit |
| MDC: Minimum Detectable Concentration | SQL: Sample Quantitation Limit |

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: December 19, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-FB-1
Sample ID: 647813011
Matrix: WQ
Collect Date: 06-DEC-23 17:30
Receive Date: 07-DEC-23
Collector: Client
Project: GPCC00105
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Nitrate-N	U	ND	0.0330	0.100	mg/L		1	LXA2	12/07/23	2233	2536861	1
Sulfate	U	ND	0.133	0.400	mg/L		1					
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic	J	0.00241	0.00200	0.0100	mg/L	1.00	1	PRB	12/14/23	2108	2536845	2
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	12/11/23	1654	2537856	3

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	12/08/23	0715	2536843

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 3005A/6020B	
3	SM 2540C	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: December 19, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-EB-1 Project: GPCC00105
Sample ID: 647813012 Client ID: GPCC001
Matrix: WQ
Collect Date: 06-DEC-23 17:38
Receive Date: 07-DEC-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Nitrate-N	J	0.0827	0.0330	0.100	mg/L		1	LXA2	12/07/23	2303	2536861	1
Sulfate	J	0.157	0.133	0.400	mg/L		1					
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic	U	ND	0.00200	0.0100	mg/L	1.00	1	PRB	12/14/23	2122	2536848	2
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	J	3.00	2.38	10.0	mg/L			CH6	12/11/23	1654	2537856	3

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	12/08/23	0715	2536847

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	EPA 300.0		
2	SW846 3005A/6020B		
3	SM 2540C		

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: December 19, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-06 Project: GPCC00105
Sample ID: 647813013 Client ID: GPCC001
Matrix: WG
Collect Date: 06-DEC-23 16:30
Receive Date: 07-DEC-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe/Mn "As Received"												
Iron	U	ND	0.0330	0.100	mg/L	1.00	1	PRB	12/14/23	2125	2536848	1
Manganese		0.0735	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	12/08/23	0715	2536847

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: December 19, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-DPZ-2 Project: GPCC00105
Sample ID: 647813014 Client ID: GPCC001
Matrix: WG
Collect Date: 06-DEC-23 10:10
Receive Date: 07-DEC-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe/Mn "As Received"												
Iron	U	ND	0.0330	0.100	mg/L	1.00	1	PRB	12/14/23	2145	2536848	1
Manganese		0.179	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	12/08/23	0715	2536847

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: December 19, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-PT-01 Project: GPCC00105
Sample ID: 647813015 Client ID: GPCC001
Matrix: WG
Collect Date: 06-DEC-23 14:35
Receive Date: 07-DEC-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe/Mn "As Received"												
Iron	U	ND	0.0330	0.100	mg/L	1.00	1	PRB	12/14/23	2148	2536848	1
Manganese		0.0886	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	12/08/23	0715	2536847

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: December 19, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-PT-02 Project: GPCC00105
Sample ID: 647813016 Client ID: GPCC001
Matrix: WG
Collect Date: 06-DEC-23 12:08
Receive Date: 07-DEC-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe/Mn "As Received"												
Iron	J	0.0474	0.0330	0.100	mg/L	1.00	1	PRB	12/14/23	2151	2536848	1
Manganese		0.0713	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	12/08/23	0715	2536847

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: December 19, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-PT-03 Project: GPCC00105
Sample ID: 647813017 Client ID: GPCC001
Matrix: WG
Collect Date: 06-DEC-23 10:39
Receive Date: 07-DEC-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe/Mn "As Received"												
Iron		0.149	0.0330	0.100	mg/L	1.00	1	PRB	12/14/23	2154	2536848	1
Manganese		0.0660	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	12/08/23	0715	2536847

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: December 19, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-PT-04D Project: GPCC00105
Sample ID: 647813018 Client ID: GPCC001
Matrix: WG
Collect Date: 06-DEC-23 11:38
Receive Date: 07-DEC-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe/Mn "As Received"												
Iron	U	ND	0.0330	0.100	mg/L	1.00	1	PRB	12/14/23	2157	2536848	1
Manganese		0.116	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	12/08/23	0715	2536847

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: December 19, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-DR-01 Project: GPCC00105
Sample ID: 647813019 Client ID: GPCC001
Matrix: WG
Collect Date: 06-DEC-23 15:40
Receive Date: 07-DEC-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe/Mn "As Received"												
Iron	U	ND	0.0330	0.100	mg/L	1.00	1	PRB	12/14/23	2159	2536848	1
Manganese		0.0542	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	12/08/23	0715	2536847

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: December 19, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-DR-02 Project: GPCC00105
Sample ID: 647813020 Client ID: GPCC001
Matrix: WG
Collect Date: 06-DEC-23 14:46
Receive Date: 07-DEC-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe/Mn "As Received"												
Iron	U	ND	0.0330	0.100	mg/L	1.00	1	PRB	12/14/23	2202	2536848	1
Manganese		0.0630	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	12/08/23	0715	2536847

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: December 19, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-20 Project: GPCC00105
Sample ID: 647813021 Client ID: GPCC001
Matrix: WG
Collect Date: 06-DEC-23 16:38
Receive Date: 07-DEC-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe/Mn "As Received"												
Manganese		0.0553	0.00100	0.00500	mg/L	1.00	1	PRB	12/14/23	2205	2536848	1
Iron		103	0.165	0.500	mg/L	1.00	5	PRB	12/16/23	1311	2536848	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	12/08/23	0715	2536847

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	
2	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: December 19, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-FD-01 Project: GPCC00105
Sample ID: 647813022 Client ID: GPCC001
Matrix: WG
Collect Date: 06-DEC-23 12:00
Receive Date: 07-DEC-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe/Mn "As Received"												
Iron	U	ND	0.0330	0.100	mg/L	1.00	1	PRB	12/14/23	2208	2536848	1
Manganese		0.177	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	12/08/23	0715	2536847

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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QC Summary

Report Date: December 19, 2023

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Georgia Power Company
241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia

Contact: Kristen Jurinko

Workorder: 647813

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2536861										
QC1205595162	647813001	DUP									
Chloride		1970		1980	mg/L	0.63		(0%-20%)	LXA2	12/08/23	01:38
Fluoride	J	1.10	J	0.493	mg/L	76.5	^	(+/-4.00)		12/07/23	20:29
Nitrate-N	U	ND	U	ND	mg/L	N/A					
Sulfate		258		258	mg/L	0.0774	^	(+/-160)		12/08/23	01:38
QC1205595164	647813009	DUP									
Nitrate-N	U	ND	U	ND	mg/L	N/A				12/07/23	21:31
Sulfate		917		928	mg/L	1.24		(0%-20%)		12/08/23	14:52
QC1205595161	LCS										
Chloride	5.00			4.61	mg/L			92.3 (90%-110%)		12/07/23	19:58
Fluoride	2.50			2.41	mg/L			96.2 (90%-110%)			
Nitrate-N	2.50			2.33	mg/L			93 (90%-110%)			
Sulfate	10.0			9.68	mg/L			96.8 (90%-110%)			
QC1205595160	MB										
Chloride			U	ND	mg/L					12/07/23	19:27
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						

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QC Summary

Workorder: 647813

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2536861										
Sulfate			U	ND	mg/L				LXA2	12/07/23	19:27
QC1205595163 647813001 PS											
Chloride	5.00	4.92		10.2	mg/L		107	(90%-110%)		12/08/23	02:09
Fluoride	2.50	J	0.221	2.44	mg/L		88.9*	(90%-110%)		12/07/23	21:00
Nitrate-N	2.50	U	ND	2.43	mg/L		97.3	(90%-110%)			
Sulfate	10.0	0.646		10.4	mg/L		97.4	(90%-110%)		12/08/23	02:09
QC1205595165 647813009 PS											
Nitrate-N	2.50	U	ND	2.44	mg/L		97.6	(90%-110%)		12/07/23	22:02
Sulfate	10.0	18.3		26.5	mg/L		81.3*	(90%-110%)		12/08/23	15:22
Metals Analysis - ICPMS											
Batch	2536845										
QC1205595117 LCS											
Arsenic	0.0500			0.0499	mg/L		99.7	(80%-120%)	PRB	12/14/23	20:20
Iron	2.00			1.99	mg/L		99.6	(80%-120%)			
Magnesium	2.00			2.27	mg/L		113	(80%-120%)			
Manganese	0.0500			0.0502	mg/L		100	(80%-120%)			
Potassium	2.00			2.20	mg/L		110	(80%-120%)			
Sodium	2.00			2.28	mg/L		114	(80%-120%)			

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QC Summary

Workorder: 647813

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2536845										
QC1205595116	MB										
Arsenic			U	ND	mg/L				PRB	12/14/23	20:17
Iron			U	ND	mg/L						
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L						
Potassium			U	ND	mg/L						
Sodium			U	ND	mg/L						
QC1205595118	647813001		MS								
Arsenic	0.0500		0.0581	0.107	mg/L		97.8	(75%-125%)		12/14/23	20:25
Iron	2.00	U	ND	1.74	mg/L		85.8	(75%-125%)			
Magnesium	2.00		135	140	mg/L		N/A	(75%-125%)		12/15/23	10:17
Manganese	0.0500		0.0708	0.114	mg/L		85.8	(75%-125%)		12/14/23	20:25
Potassium	2.00		66.3	68.6	mg/L		N/A	(75%-125%)		12/15/23	10:17
Sodium	2.00		1250	1260	mg/L		N/A	(75%-125%)			
QC1205595119	647813001		MSD								
Arsenic	0.0500		0.0581	0.104	mg/L	2.86	91.7	(0%-20%)		12/14/23	20:28
Iron	2.00	U	ND	1.72	mg/L	1.4	84.6	(0%-20%)			
Magnesium	2.00		135	136	mg/L	3.02	N/A	(0%-20%)		12/15/23	10:18

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QC Summary

Workorder: 647813

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2536845										
Manganese	0.0500	0.0708		0.113	mg/L	0.419	84.8	(0%-20%)	PRB	12/14/23	20:28
Potassium	2.00	66.3		66.7	mg/L	2.72	N/A	(0%-20%)		12/15/23	10:18
Sodium	2.00	1250		1240	mg/L	1.58	N/A	(0%-20%)			
QC1205595120	647813001 SDILT										
Arsenic		58.1		12.3	ug/L	5.34		(0%-20%)		12/14/23	20:34
Iron	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Magnesium		2700		552	ug/L	2.09		(0%-20%)		12/15/23	10:19
Manganese		70.8		15.5	ug/L	9.52		(0%-20%)		12/14/23	20:34
Potassium		1330	J	266	ug/L	.248		(0%-20%)		12/15/23	10:19
Sodium		25100		5110	ug/L	1.82		(0%-20%)			
Batch	2536848										
QC1205595123	LCS										
Arsenic	0.0500			0.0505	mg/L		101	(80%-120%)	PRB	12/14/23	21:19
Iron	2.00			1.95	mg/L		97.7	(80%-120%)			
Manganese	0.0500			0.0505	mg/L		101	(80%-120%)			
QC1205595122	MB										
Arsenic			U	ND	mg/L					12/14/23	21:17
Iron			U	ND	mg/L						

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QC Summary

Workorder: 647813

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2536848										
Manganese			U	ND	mg/L				PRB	12/14/23	21:17
QC1205595124 647813013 MS											
Arsenic	0.0500	0.0655		0.113	mg/L		96	(75%-125%)		12/14/23	21:28
Iron	2.00	U	ND	1.77	mg/L		87.8	(75%-125%)			
Manganese	0.0500	0.0735		0.118	mg/L		89.6	(75%-125%)			
QC1205595125 647813013 MSD											
Arsenic	0.0500	0.0655		0.112	mg/L	1.41	92.8	(0%-20%)		12/14/23	21:31
Iron	2.00	U	ND	1.78	mg/L	0.561	88.3	(0%-20%)			
Manganese	0.0500	0.0735		0.118	mg/L	0.277	89	(0%-20%)			
QC1205595126 647813013 SDILT											
Arsenic		65.5		14.0	ug/L	6.64		(0%-20%)		12/14/23	21:37
Iron		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Manganese		73.5		15.6	ug/L	6.21		(0%-20%)			
Solids Analysis											
Batch	2537354										
QC1205596096 647813009 DUP											
Total Dissolved Solids		11400		11100	mg/L	2.66		(0%-5%)	CH6	12/08/23	14:58
QC1205596094 LCS											
Total Dissolved Solids	300			300	mg/L		100	(95%-105%)		12/08/23	14:58

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QC Summary

Workorder: 647813

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Solids Analysis											
Batch		2537354									
QC1205596093											
			U	ND	mg/L				CH6	12/08/23	14:58
<hr/>											
Batch		2537856									
QC1205596943		647597002	DUP								
Total Dissolved Solids			158	186	mg/L	16.3*		(0%-5%)	CH6	12/11/23	16:54
<hr/>											
QC1205596942		LCS									
Total Dissolved Solids	300			304	mg/L		101	(95%-105%)		12/11/23	16:54
<hr/>											
QC1205596941		MB									
Total Dissolved Solids			U	ND	mg/L					12/11/23	16:54
<hr/>											
Titration and Ion Analysis											
Batch		2538452									
QC1205598168		647467002	DUP								
Alkalinity, Total as CaCO3			201	200	mg/L	0.749		(0%-20%)	JW2	12/11/23	13:56
<hr/>											
Bicarbonate alkalinity (CaCO3)			147	151	mg/L	2.35		(0%-20%)			
<hr/>											
Carbonate alkalinity (CaCO3)			54.0	49.0	mg/L	9.71		(0%-20%)			
<hr/>											
QC1205598167		LCS									
Alkalinity, Total as CaCO3	50.0			50.5	mg/L		101	(90%-110%)		12/11/23	13:51
<hr/>											
QC1205598169		647467002	MS								
Alkalinity, Total as CaCO3	50.0		201	249	mg/L		N/A	(80%-120%)		12/11/23	13:57

Notes:

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits

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QC Summary

Workorder: 647813

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
H	Analytical holding time was exceeded										
<	Result is less than value reported										
>	Result is greater than value reported										
h	Preparation or preservation holding time was exceeded										
R	Sample results are rejected										
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.										
d	5-day BOD--The 2:1 depletion requirement was not met for this sample										
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.										
N/A	RPD or %Recovery limits do not apply.										
ND	Analyte concentration is not detected above the detection limit										
E	%difference of sample and SD is >10%. Sample concentration must meet flagging criteria										
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range										
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.										
FB	Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies										
N1	See case narrative										
Y	Other specific qualifiers were required to properly define the results. Consult case narrative.										
R	Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.										
B	The target analyte was detected in the associated blank.										
e	5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes										
J	See case narrative for an explanation										

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Technical Case Narrative
Georgia Power Company
SDG #: 647813**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

Analytical Procedure: GL-MA-E-014 REV# 36

Analytical Batch: 2536845

Preparation Method: SW846 3005A

Preparation Procedure: GL-MA-E-006 REV# 14

Preparation Batch: 2536843

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
647813001	MCM-MCM-06
647813002	MCM-DPZ-2
647813003	MCM-PT-01
647813004	MCM-PT-02
647813005	MCM-PT-03
647813006	MCM-PT-04D
647813007	MCM-DR-01
647813008	MCM-DR-02
647813009	MCM-MCM-20
647813010	MCM-AP1-FD-01
647813011	MCM-AP1-FB-1
1205595116	Method Blank (MB) ICP-MS
1205595117	Laboratory Control Sample (LCS)
1205595120	647813001(MCM-MCM-06L) Serial Dilution (SD)
1205595118	647813001(MCM-MCM-06S) Matrix Spike (MS)
1205595119	647813001(MCM-MCM-06SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

ICSA/ICSAB Statement

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Technical Information

Sample Dilutions

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range

target analyte concentrations into the linear calibration range. Samples 647813001 (MCM-MCM-06) and 647813009 (MCM-MCM-20) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument. Per the SOP, samples 647813002 (MCM-DPZ-2), 647813006 (MCM-PT-04D), 647813009 (MCM-MCM-20) and 647813010 (MCM-AP1-FD-01) were diluted due to internal standard recoveries outside the acceptable control limits.

Analyte	647813				
	001	002	006	009	010
Arsenic	1X	5X	5X	5X	5X
Iron	1X	1X	1X	5X	1X
Magnesium	50X				
Potassium	50X				
Sodium	50X				

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

Analytical Procedure: GL-MA-E-014 REV# 36

Analytical Batch: 2536848

Preparation Method: SW846 3005A

Preparation Procedure: GL-MA-E-006 REV# 14

Preparation Batch: 2536847

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
647813012	MCM-AP1-EB-1
647813013	MCM-MCM-06
647813014	MCM-DPZ-2
647813015	MCM-PT-01
647813016	MCM-PT-02
647813017	MCM-PT-03
647813018	MCM-PT-04D
647813019	MCM-DR-01
647813020	MCM-DR-02
647813021	MCM-MCM-20
647813022	MCM-AP1-FD-01
1205595122	Method Blank (MB) ICP-MS
1205595123	Laboratory Control Sample (LCS)
1205595126	647813013(MCM-MCM-06L) Serial Dilution (SD)
1205595124	647813013(MCM-MCM-06S) Matrix Spike (MS)
1205595125	647813013(MCM-MCM-06SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

ICSA/ICSAB Statement

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Technical Information

Sample Dilutions

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Sample 647813021 (MCM-MCM-20) was diluted to ensure that the analyte concentration was within the linear calibration range of the instrument.

Analyte	647813
	021
Iron	5X

General Chemistry

Product: Ion Chromatography

Analytical Method: EPA 300.0

Analytical Procedure: GL-GC-E-086 REV# 34

Analytical Batch: 2536861

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
647813001	MCM-MCM-06
647813002	MCM-DPZ-2
647813003	MCM-PT-01
647813004	MCM-PT-02
647813005	MCM-PT-03
647813006	MCM-PT-04D
647813007	MCM-DR-01
647813008	MCM-DR-02
647813009	MCM-MCM-20
647813010	MCM-AP1-FD-01
647813011	MCM-AP1-FB-1
647813012	MCM-AP1-EB-1
1205595160	Method Blank (MB)
1205595161	Laboratory Control Sample (LCS)
1205595162	647813001(MCM-MCM-06) Sample Duplicate (DUP)
1205595163	647813001(MCM-MCM-06) Post Spike (PS)
1205595164	647813009(MCM-MCM-20) Sample Duplicate (DUP)
1205595165	647813009(MCM-MCM-20) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

Analyte	Sample	Value
Fluoride	1205595163 (MCM-MCM-06PS)	88.9* (90%-110%)
Sulfate	1205595165 (MCM-MCM-20PS)	81.3* (90%-110%)

Technical Information

Sample Dilutions

The following samples 1205595162 (MCM-MCM-06DUP), 1205595163 (MCM-MCM-06PS), 1205595164 (MCM-MCM-20DUP), 1205595165 (MCM-MCM-20PS), 647813001 (MCM-MCM-06), 647813002 (MCM-DPZ-2), 647813003 (MCM-PT-01), 647813004 (MCM-PT-02), 647813005 (MCM-PT-03), 647813006 (MCM-PT-04D), 647813007 (MCM-DR-01), 647813008 (MCM-DR-02), 647813009 (MCM-MCM-20) and 647813010 (MCM-AP1-FD-01) were diluted because target analyte concentrations exceeded the calibration range. Samples 1205595162 (MCM-MCM-06DUP), 1205595163 (MCM-MCM-06PS), 1205595164 (MCM-MCM-20DUP), 1205595165 (MCM-MCM-20PS), 647813001 (MCM-MCM-06), 647813002 (MCM-DPZ-2), 647813003 (MCM-PT-01), 647813004 (MCM-PT-02), 647813005 (MCM-PT-03), 647813006 (MCM-PT-04D), 647813007 (MCM-DR-01), 647813008 (MCM-DR-02), 647813009 (MCM-MCM-20) and 647813010 (MCM-AP1-FD-01) were diluted to minimize matrix effects on instrument performance. Samples 1205595162 (MCM-MCM-06DUP), 1205595163 (MCM-MCM-06PS), 1205595164 (MCM-MCM-20DUP), 1205595165 (MCM-MCM-20PS), 647813001 (MCM-MCM-06), 647813002 (MCM-DPZ-2), 647813003 (MCM-PT-01), 647813004 (MCM-PT-02), 647813005 (MCM-PT-03), 647813006 (MCM-PT-04D), 647813007 (MCM-DR-01), 647813008 (MCM-DR-02), 647813009 (MCM-MCM-20) and 647813010 (MCM-AP1-FD-01) were diluted based on historical data. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	647813									
	001	002	003	004	005	006	007	008	009	010
Chloride	400X									
Fluoride	5X									
Nitrate-N	5X	5X	5X	5X	5X	5X	5X	5X	20X	5X
Sulfate	400X	100X	10X	10X	20X	50X	20X	20X	50X	100X

Miscellaneous Information

Manual Integrations

Samples 1205595162 (MCM-MCM-06DUP), 1205595164 (MCM-MCM-20DUP), 647813001 (MCM-MCM-06), 647813002 (MCM-DPZ-2), 647813003 (MCM-PT-01), 647813004 (MCM-PT-02), 647813005 (MCM-PT-03), 647813006 (MCM-PT-04D), 647813007 (MCM-DR-01), 647813008

(MCM-DR-02), 647813009 (MCM-MCM-20) and 647813010 (MCM-AP1-FD-01) were manually integrated to correctly position the baseline as set in the calibration standards.

Product: Solids, Total Dissolved

Analytical Method: SM 2540C

Analytical Procedure: GL-GC-E-001 REV# 21

Analytical Batch: 2537354

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
647813001	MCM-MCM-06
647813002	MCM-DPZ-2
647813003	MCM-PT-01
647813004	MCM-PT-02
647813005	MCM-PT-03
647813006	MCM-PT-04D
647813007	MCM-DR-01
647813008	MCM-DR-02
647813009	MCM-MCM-20
647813010	MCM-AP1-FD-01
1205596093	Method Blank (MB)
1205596094	Laboratory Control Sample (LCS)
1205596096	647813009(MCM-MCM-20) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Consecutive Weight Checks

In order to meet consecutive weight check criteria, weight events must be within 0.0005g of each other. After initial weight checks failed this criteria, the analyst performed two additional weight events. After four weight events, the analyst was unable to get the samples to conform to the criteria. The failure to meet weigh back criteria is attributed to the matrix of the samples. 647813002 (MCM-DPZ-2).

Miscellaneous Information

Additional Comments

A TDS meter was used to check the samples for interference prior to analysis. 1205596096 (MCM-MCM-20DUP), 647813001 (MCM-MCM-06), 647813002 (MCM-DPZ-2), 647813003 (MCM-PT-01), 647813004 (MCM-PT-02), 647813005 (MCM-PT-03), 647813006 (MCM-PT-04D), 647813007 (MCM-DR-01), 647813008 (MCM-DR-02), 647813009 (MCM-MCM-20) and 647813010 (MCM-AP1-FD-01).

Product: Solids, Total Dissolved

Analytical Method: SM 2540C

Analytical Procedure: GL-GC-E-001 REV# 21

Analytical Batch: 2537856

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
647813011	MCM-AP1-FB-1
647813012	MCM-AP1-EB-1
1205596941	Method Blank (MB)
1205596942	Laboratory Control Sample (LCS)
1205596943	647597002(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Duplicate Relative Percent Difference (RPD) Statement

The Relative Percent Difference (RPD) between the sample and duplicate falls outside of the established acceptance limits because of the heterogeneous matrix of the sample:

Analyte	Sample	Value
Total Dissolved Solids	1205596943 (Non SDG 647597002DUP)	16.3* (0%-5%)

Product: Alkalinity

Analytical Method: SM 2320B

Analytical Procedure: GL-GC-E-033 REV# 16

Analytical Batch: 2538452

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
647813001	MCM-MCM-06
1205598167	Laboratory Control Sample (LCS)
1205598168	647467002(NonSDG) Sample Duplicate (DUP)
1205598169	647467002(NonSDG) Matrix Spike (MS)

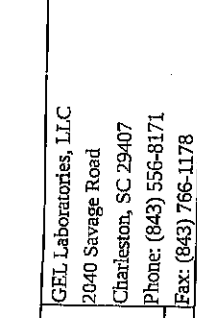
The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.



Laboratories LLC
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics
 Chain of Custody and Analytical Request
 GEL Work Order Number:
 Phone #: N/A
 Fax #

GEL Laboratories, LLC
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

647813

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Project/Site Name: Plant McManus CCR Groundwater Compliance
 Address: 241 Ralph McGill Blvd NE, Atlanta, GA 30308
 Collected By: *Responsible Party*
 Send Results To: KNJURINK@SOUTHERNCO.COM

Sample ID	Date Collected (mm-dd-yy)	Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Total number of containers					Should this sample be considered: (3) Known or possible hazards (4) Radiotoxic (if isotopic info, please supply)	Comments
						Total number of containers	Total Metals	Dissolved Metals	Anions/TDS/Alkalinity	Anions/TDS		
MCM-MCM-06	12/16/23	1630	G	Y*	GW	3	X	X	X	X		
MCM-DPZ-2	12/16/23	1610	G	Y*	GW	3	X	X	X	X		
MCM-PT-01	12/16/23	1435	G	Y*	GW	3	X	X	X	X		
MCM-PT-02	12/16/23	1708	G	Y*	GW	3	X	X	X	X		
MCM-PT-03	12/16/23	1638	G	Y*	GW	3	X	X	X	X		
MCM-PT-04D	12/16/23	1138	G	Y*	GW	3	X	X	X	X		
MCM-DR-01	12/16/23	1540	G	Y*	GW	3	X	X	X	X		
MCM-DR-02	12/16/23	1440	G	Y*	GW	3	X	X	X	X		
MCM-MCM-20	12/16/23	1638	G	Y*	GW	3	X	X	X	X		
MCM-API-FD-01	12/16/23	-	FD	Y*	GW	3	X	X	X	X		

Chain of Custody Signatures
 Relinquished By (Signed) _____ Date _____ Time _____
 Received by (signed) _____ Date _____ Time _____
 1. *[Signature]* 12/17/23 935
 2. *[Signature]* 12/17/23 935
 3. _____

TAT Requested: Normal: _____ Rush: _____ Specify: _____
 Fax Results: [] Yes [] No
 Select Deliverable: [] C of A [] QC Summary [] Level 1 [] Level 2 [] Level 3 [] Level 4
 Additional Remarks: 233339
 For Lab Receiving Use Only: Custody Seal Intact? [] Yes [] No Cooler Temp: _____ °C
 Sample Collection Time Zone: [] Eastern [] Pacific [] Central [] Mountain [] Other

For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)
 Chain of Custody Number = Client Determined

1.) Chain of Custody Number = Client Determined
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
 4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecl, N=Nasal
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank
 7.) KNOWN OR POSSIBLE HAZARDS

Characteristic Hazards	Listed Waste	Other
FL = Flammable/Ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F,K,P and U-listed wastes) Waste code(s):	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description:
TSCA Regulated PCB = Polychlorinated biphenyls		

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)
** only dissolved*
White Field
Blurred

GEL Laboratories LLC
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

GEL Work Order Number: GEL Project Manager: Erin Trent
 Phone #: N/A
 Fax #

Send Results To: KNUJINK@SOUTHERNCO.COM

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID	*For composites - indicate start and stop date/time	*Date Collected (mm-dd-yy)	*Time Collected (Military (hhmm) (hhmm))	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered:				Total number of containers	Antions/TDS/Alkalinity	Antions/TDS	Preservative Type (6)	Comments
							Yes, please supply isotopic info.)	Known or possible Hazards	Disolved Metals	Antions/TDS					
MCM-API-FB-1		12/11/23	1730 FB		N	W					2	X			Note: extra sample is required for sample specific QC
MCM-API-FB-2		12/11/23	1732 FB		N	W				3	X				
MCM-API-EB-1															
MCM-API-EB-2															

Chain of Custody Signatures

Received by (Signed)	Date	Time
<i>[Signature]</i>	12/11/23	935
<i>[Signature]</i>	12/11/23	935

TAT Requested: Normal: _____ Rush: _____ Specify: _____
 Fax Results: Yes No
 Select Deliverable: C of A QC Summary Level 1 Level 2 Level 3 Level 4
 Additional Remarks: 233339

For Lab Receiving Use Only: Custody Seal Intact? Yes No Cooler Temp: _____ °C
 Sample Collection Time Zone: Eastern Pacific Central Mountain Other:

> For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, ED = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a -Y- for yes the sample was field filtered or -N- for no sample was not field filtered.

4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc. Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

7.) KNOWN OR POSSIBLE HAZARDS

RCRA Metals	Characteristic Hazards	Listed Waste	Other
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/Ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F,K,P and U-listed wastes.) Waste code(s):	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description:

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

ET

SAMPLE RECEIPT & REVIEW FORM

Client: <u>GPCC</u>		SDG/AR/COC/Work Order: <u>647813</u>	
Received By: <u>CLM</u>		Date Received: <u>12/7/23</u>	
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier <u>Other</u> <u>Client</u>	
Suspected Hazard Information		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No *If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.	
A) Shipped as a DOT Hazardous?		Hazard Class Shipped: _____ UN#: _____ IF UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___	
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No COC notation or radioactive stickers on containers equal client designation: _____	
C) Did the RSO classify the samples as radioactive?		Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM/mR/Hr Classified as: Rad 1 Rad 2 Rad 3	
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No COC notation or hazard labels on containers equal client designation: _____	
E) Did the RSO identify possible hazards?		<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No IF D or E is yes, select Hazards below. PCB's Flammable Foreign Soil <u>RCRA</u> Asbestos Beryllium Other: _____	
Sample Receipt Criteria		Comments/Qualifiers (Required for Non-Conforming Items)	
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> NA <input checked="" type="checkbox"/> No	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> NA <input checked="" type="checkbox"/> No	Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ deg. C)?*	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> NA <input checked="" type="checkbox"/> No	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: _____ *all temperatures are recorded in Celsius TEMP: <u>2°</u>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> NA <input checked="" type="checkbox"/> No	Temperature Device Serial #: <u>IR8-23</u> Secondary Temperature Device Serial # (If Applicable): _____
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> NA <input checked="" type="checkbox"/> No	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> NA <input checked="" type="checkbox"/> No	Sample ID's and Containers Affected: _____ If Preservation added, Lot#: _____
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> NA <input checked="" type="checkbox"/> No	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected: _____
8	Samples received within holding time?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> NA <input checked="" type="checkbox"/> No	ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> NA <input checked="" type="checkbox"/> No	ID's and containers affected:
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> NA <input checked="" type="checkbox"/> No	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> NA <input checked="" type="checkbox"/> No	Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> NA <input checked="" type="checkbox"/> No	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> NA <input checked="" type="checkbox"/> No	Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed):			

PM (or PMA) review: Initials MG Date 12/8/23 Page 1 of 1

List of current GEL Certifications as of 19 December 2023

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-00651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	KY90129
Kentucky Wastewater	KY90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2023019
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122024-05
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2023-152
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-23-21
Utah NELAP	SC000122023-38
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

 **ANALYTICAL REPORT****PREPARED FOR**

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

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JOB DESCRIPTION

Plant McManus - Supplemental

JOB NUMBER

680-243970-1

Eurofins Savannah

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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



Authorized for release by
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Revision 1

Definitions/Glossary

Client: Southern Company
Project/Site: Plant McManus - Supplemental

Job ID: 680-243970-1

Glossary

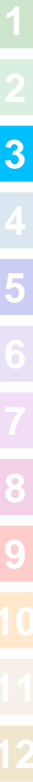
Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (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 - Supplemental

Job ID: 680-243970-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-243970-1	MCM-MCM-06	Water	12/06/23 16:30	12/07/23 10:20
680-243970-2	MCM-DPZ-02	Water	12/06/23 10:10	12/07/23 10:20
680-243970-3	MCM-PT-01	Water	12/06/23 14:35	12/07/23 10:20
680-243970-4	MCM-PT-02	Water	12/06/23 12:08	12/07/23 10:20
680-243970-5	MCM-PT-03	Water	12/06/23 10:39	12/07/23 10:20
680-243970-6	MCM-PT-04D	Water	12/06/23 11:38	12/07/23 10:20
680-243970-7	MCM-DR-01	Water	12/06/23 15:40	12/07/23 10:20
680-243970-8	MCM-DR-02	Water	12/06/23 14:46	12/07/23 10:20
680-243970-9	MCM-MCM-20	Water	12/06/23 15:38	12/07/23 10:20
680-243970-10	MCM-AP1-FD-01	Water	12/06/23 00:00	12/07/23 10:20
680-243970-11	MCM-AP1-FB-1	Water	12/06/23 17:30	12/07/23 10:20
680-243970-12	MCM-AP1-EB-1	Water	12/06/23 17:38	12/07/23 10:20



Case Narrative

Client: Southern Company
Project/Site: Plant McManus - Supplemental

Job ID: 680-243970-1

Job ID: 680-243970-1

Laboratory: Eurofins Savannah

Narrative

**Job Narrative
680-243970-1**

Revision 1

The report being provided is a revision of the original report sent on 12/12/2023. The report (revision 1) is being revised in order to add the "MCM" prefix to the Client Sample IDs as required to meet the data quality objectives for the client specific Electronic Data Deliverable (EDD) submittal.

Receipt

The samples were received on 12/7/2023 10:20 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6°C

General Chemistry

Method SM4500_S2_F: The following samples contained un-precipitated sulfide: MCM-06 (680-243970-1), DPZ-02 (680-243970-2), PT-01 (680-243970-3), PT-02 (680-243970-4), PT-03 (680-243970-5), PT-04D (680-243970-6), DR-01 (680-243970-7), DR-02 (680-243970-8), AP1-FD-01 (680-243970-10), (680-243970-B-1 DU), (680-243970-B-2 MS) and (680-243970-B-2 MSD). Zinc Acetate (2 Normal) was added to the samples until all sulfide had precipitated.

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

Client Sample Results

Client: Southern Company
Project/Site: Plant McManus - Supplemental

Job ID: 680-243970-1

Client Sample ID: MCM-MCM-06

Date Collected: 12/06/23 16:30

Date Received: 12/07/23 10:20

Lab Sample ID: 680-243970-1

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	24		0.81	0.81	mg/L			12/12/23 12:55	1

Client Sample ID: MCM-DPZ-02

Date Collected: 12/06/23 10:10

Date Received: 12/07/23 10:20

Lab Sample ID: 680-243970-2

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	18		0.81	0.81	mg/L			12/12/23 12:55	1

Client Sample ID: MCM-PT-01

Date Collected: 12/06/23 14:35

Date Received: 12/07/23 10:20

Lab Sample ID: 680-243970-3

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	14		0.81	0.81	mg/L			12/12/23 12:55	1

Client Sample ID: MCM-PT-02

Date Collected: 12/06/23 12:08

Date Received: 12/07/23 10:20

Lab Sample ID: 680-243970-4

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	17		0.81	0.81	mg/L			12/12/23 12:55	1

Client Sample ID: MCM-PT-03

Date Collected: 12/06/23 10:39

Date Received: 12/07/23 10:20

Lab Sample ID: 680-243970-5

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	19		0.81	0.81	mg/L			12/12/23 12:55	1

Client Sample ID: MCM-PT-04D

Date Collected: 12/06/23 11:38

Date Received: 12/07/23 10:20

Lab Sample ID: 680-243970-6

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	18		0.81	0.81	mg/L			12/12/23 12:55	1

Client Sample ID: MCM-DR-01

Date Collected: 12/06/23 15:40

Date Received: 12/07/23 10:20

Lab Sample ID: 680-243970-7

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	23		0.81	0.81	mg/L			12/12/23 12:55	1

Eurofins Savannah

Client Sample Results

Client: Southern Company
Project/Site: Plant McManus - Supplemental

Job ID: 680-243970-1

Client Sample ID: MCM-DR-02

Lab Sample ID: 680-243970-8

Date Collected: 12/06/23 14:46

Matrix: Water

Date Received: 12/07/23 10:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	23		0.81	0.81	mg/L			12/12/23 12:55	1

Client Sample ID: MCM-MCM-20

Lab Sample ID: 680-243970-9

Date Collected: 12/06/23 15:38

Matrix: Water

Date Received: 12/07/23 10:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	0.81		0.81	0.81	mg/L			12/12/23 12:55	1

Client Sample ID: MCM-AP1-FD-01

Lab Sample ID: 680-243970-10

Date Collected: 12/06/23 00:00

Matrix: Water

Date Received: 12/07/23 10:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	19		0.81	0.81	mg/L			12/12/23 12:55	1

Client Sample ID: MCM-AP1-FB-1

Lab Sample ID: 680-243970-11

Date Collected: 12/06/23 17:30

Matrix: Water

Date Received: 12/07/23 10:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	<0.81		0.81	0.81	mg/L			12/12/23 12:55	1

Client Sample ID: MCM-AP1-EB-1

Lab Sample ID: 680-243970-12

Date Collected: 12/06/23 17:38

Matrix: Water

Date Received: 12/07/23 10:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	<0.81		0.81	0.81	mg/L			12/12/23 12:55	1

QC Sample Results

Client: Southern Company
 Project/Site: Plant McManus - Supplemental

Job ID: 680-243970-1

Method: 4500 S2 F-2011 - Sulfide, Total

Lab Sample ID: MB 680-812938/1
Matrix: Water
Analysis Batch: 812938

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			12/12/23 12:55	1

Lab Sample ID: LCS 680-812938/2
Matrix: Water
Analysis Batch: 812938

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	10.3		mg/L		103	75 - 125

Lab Sample ID: LCSD 680-812938/3
Matrix: Water
Analysis Batch: 812938

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	9.79		mg/L		98	75 - 125	5	30

Lab Sample ID: 680-243970-2 MS
Matrix: Water
Analysis Batch: 812938

Client Sample ID: MCM-DPZ-02
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	18		6.50	25.7		mg/L		118	75 - 125

Lab Sample ID: 680-243970-2 MSD
Matrix: Water
Analysis Batch: 812938

Client Sample ID: MCM-DPZ-02
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	18		6.50	25.7		mg/L		118	75 - 125	0	30

Lab Sample ID: 680-243970-1 DU
Matrix: Water
Analysis Batch: 812938

Client Sample ID: MCM-MCM-06
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfide	24		24.4		mg/L		1	30

QC Association Summary

Client: Southern Company
Project/Site: Plant McManus - Supplemental

Job ID: 680-243970-1

General Chemistry

Analysis Batch: 812938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-243970-1	MCM-MCM-06	Total/NA	Water	4500 S2 F-2011	
680-243970-2	MCM-DPZ-02	Total/NA	Water	4500 S2 F-2011	
680-243970-3	MCM-PT-01	Total/NA	Water	4500 S2 F-2011	
680-243970-4	MCM-PT-02	Total/NA	Water	4500 S2 F-2011	
680-243970-5	MCM-PT-03	Total/NA	Water	4500 S2 F-2011	
680-243970-6	MCM-PT-04D	Total/NA	Water	4500 S2 F-2011	
680-243970-7	MCM-DR-01	Total/NA	Water	4500 S2 F-2011	
680-243970-8	MCM-DR-02	Total/NA	Water	4500 S2 F-2011	
680-243970-9	MCM-MCM-20	Total/NA	Water	4500 S2 F-2011	
680-243970-10	MCM-AP1-FD-01	Total/NA	Water	4500 S2 F-2011	
680-243970-11	MCM-AP1-FB-1	Total/NA	Water	4500 S2 F-2011	
680-243970-12	MCM-AP1-EB-1	Total/NA	Water	4500 S2 F-2011	
MB 680-812938/1	Method Blank	Total/NA	Water	4500 S2 F-2011	
LCS 680-812938/2	Lab Control Sample	Total/NA	Water	4500 S2 F-2011	
LCSD 680-812938/3	Lab Control Sample Dup	Total/NA	Water	4500 S2 F-2011	
680-243970-2 MS	MCM-DPZ-02	Total/NA	Water	4500 S2 F-2011	
680-243970-2 MSD	MCM-DPZ-02	Total/NA	Water	4500 S2 F-2011	
680-243970-1 DU	MCM-MCM-06	Total/NA	Water	4500 S2 F-2011	

Lab Chronicle

Client: Southern Company
Project/Site: Plant McManus - Supplemental

Job ID: 680-243970-1

Client Sample ID: MCM-MCM-06

Lab Sample ID: 680-243970-1

Date Collected: 12/06/23 16:30

Matrix: Water

Date Received: 12/07/23 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	812938	12/12/23 12:55	JAS	EET SAV
Instrument ID: NoEquip										

Client Sample ID: MCM-DPZ-02

Lab Sample ID: 680-243970-2

Date Collected: 12/06/23 10:10

Matrix: Water

Date Received: 12/07/23 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	812938	12/12/23 12:55	JAS	EET SAV
Instrument ID: NoEquip										

Client Sample ID: MCM-PT-01

Lab Sample ID: 680-243970-3

Date Collected: 12/06/23 14:35

Matrix: Water

Date Received: 12/07/23 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	812938	12/12/23 12:55	JAS	EET SAV
Instrument ID: NoEquip										

Client Sample ID: MCM-PT-02

Lab Sample ID: 680-243970-4

Date Collected: 12/06/23 12:08

Matrix: Water

Date Received: 12/07/23 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	812938	12/12/23 12:55	JAS	EET SAV
Instrument ID: NoEquip										

Client Sample ID: MCM-PT-03

Lab Sample ID: 680-243970-5

Date Collected: 12/06/23 10:39

Matrix: Water

Date Received: 12/07/23 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	812938	12/12/23 12:55	JAS	EET SAV
Instrument ID: NoEquip										

Client Sample ID: MCM-PT-04D

Lab Sample ID: 680-243970-6

Date Collected: 12/06/23 11:38

Matrix: Water

Date Received: 12/07/23 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	812938	12/12/23 12:55	JAS	EET SAV
Instrument ID: NoEquip										

Eurofins Savannah

Lab Chronicle

Client: Southern Company
Project/Site: Plant McManus - Supplemental

Job ID: 680-243970-1

Client Sample ID: MCM-DR-01

Lab Sample ID: 680-243970-7

Date Collected: 12/06/23 15:40

Matrix: Water

Date Received: 12/07/23 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	812938	12/12/23 12:55	JAS	EET SAV
Instrument ID: NoEquip										

Client Sample ID: MCM-DR-02

Lab Sample ID: 680-243970-8

Date Collected: 12/06/23 14:46

Matrix: Water

Date Received: 12/07/23 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	812938	12/12/23 12:55	JAS	EET SAV
Instrument ID: NoEquip										

Client Sample ID: MCM-MCM-20

Lab Sample ID: 680-243970-9

Date Collected: 12/06/23 15:38

Matrix: Water

Date Received: 12/07/23 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	812938	12/12/23 12:55	JAS	EET SAV
Instrument ID: NoEquip										

Client Sample ID: MCM-AP1-FD-01

Lab Sample ID: 680-243970-10

Date Collected: 12/06/23 00:00

Matrix: Water

Date Received: 12/07/23 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	812938	12/12/23 12:55	JAS	EET SAV
Instrument ID: NoEquip										

Client Sample ID: MCM-AP1-FB-1

Lab Sample ID: 680-243970-11

Date Collected: 12/06/23 17:30

Matrix: Water

Date Received: 12/07/23 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	812938	12/12/23 12:55	JAS	EET SAV
Instrument ID: NoEquip										

Client Sample ID: MCM-AP1-EB-1

Lab Sample ID: 680-243970-12

Date Collected: 12/06/23 17:38

Matrix: Water

Date Received: 12/07/23 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	812938	12/12/23 12:55	JAS	EET SAV
Instrument ID: NoEquip										

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Eurofins Savannah

Accreditation/Certification Summary

Client: Southern Company
Project/Site: Plant McManus - Supplemental

Job ID: 680-243970-1

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Georgia	State	E87052	06-30-24

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

Method Summary

Client: Southern Company
Project/Site: Plant McManus - Supplemental

Job ID: 680-243970-1

Method	Method Description	Protocol	Laboratory
4500 S2 F-2011	Sulfide, Total	SM	EET SAV

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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Eurofins Savannah

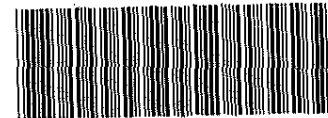
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

244- ATLANTA Eurofins

Environment Testing

Client Information		Sampler: <i>Southern Environmental</i>		Lab PM: Fuller David		Carrier Tracking No(s):		COC No:			
Client Contact: Kristen Jurinko		Phone: 470-295-0653		E-Mail: David.Fuller@et.eurofinsus.com		State of Origin: GA		Page: Page 1 of 2			
Company: Southern Company		PWSID:		Analysis Requested						Job #:	
Address: 241 Ralph McGill Blvd SE B10185		Due Date Requested:								Preservation Codes:	
City: Atlanta		TAT Requested (days):		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Total Number of Containers		A HCL M Hexane	
State, Zip: GA, 30308		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No								B NaOH N None	
Phone: 404-506-7116(Tel)		Lab Project #: (DO NOT REMOVE) 68027841		SN4500_S2_F Sulfide (FILL COMPLETELY)		C Zn Acetate P Na2O4S		D Nitric Acid Q Na2SO3		E NaHSO4 R Na2S2O3	
Email: KNJURINK@SOUTHERNCO.COM		Lab PO #: GPC82130-0001								F MeOH S H2SO4	
Project Name: Plant McManus Supplemental		Project #:		G Amchlor T TSP Dodecahydrate		H Ascorbic Acid U Acetone		I Ice V MCAA		J DI Water W pH 4-5	
Site:		SSOW#:								K EDTA Y Trizma	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/oli, ST=Tissue, A=Air)		Task Code:	
										MCM-CCR-CA-20231204	
										Special Instructions/Note:	
<i>MCP-06</i>		<i>12/6/23</i>		<i>1630</i>		<i>G W</i>		<i>W Y X</i>			
<i>DPE-02</i>		<i>12/6/23</i>		<i>1010</i>		<i>G W</i>		<i>W Y X</i>			
<i>PT-01</i>		<i>12/6/23</i>		<i>1435</i>		<i>G W</i>		<i>W Y X</i>			
<i>PT-02</i>		<i>12/6/23</i>		<i>1208</i>		<i>G W</i>		<i>W Y X</i>			
<i>PT-03</i>		<i>12/6/23</i>		<i>1039</i>		<i>G W</i>		<i>W Y X</i>			
<i>PT-04D</i>		<i>12/6/23</i>		<i>1138</i>		<i>G W</i>		<i>W Y X</i>			
<i>DR-01</i>		<i>12/6/23</i>		<i>1640</i>		<i>G W</i>		<i>W Y X</i>			
<i>DR-02</i>		<i>12/6/23</i>		<i>1446</i>		<i>G W</i>		<i>W Y X</i>			
<i>MCL-20</i>		<i>12/6/23</i>		<i>1638</i>		<i>G W</i>		<i>W Y X</i>			
<i>AD1-FD-01</i>		<i>12/6/23</i>		<i>-</i>		<i>G W</i>		<i>W Y X</i>			
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> 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: <i>Meredith Conner</i>		Date/Time: <i>12/1/23 1020</i>		Company: <i>Resolute</i>		Received by: <i>TH</i>		Date/Time: <i>12-07-23</i>		Company:	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time: <i>10:20</i>		Company:	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.		Cooler Temperature(s) °C and Other Remarks: <i>1.3 - 1.6</i>							



680-243970 Chain of Custody

CID

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Eurofins Savannah

5102 LaRoche Avenue
 Savannah, GA 31404
 Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

44-ATLANTA



Environment Testing

Client Information				Sampler: <i>Resolute Env</i>	Lab PM: Fuller, David	Carrier Tracking No(s):	COC No:																																																																																																																																								
Client Contact: Kristen Jurinko				Phone: 470-895-0653	E-Mail: David.Fuller@et.eurofinsus.com	State of Origin: GA	Page of																																																																																																																																								
Company: Southern Company				PWSID:	Analysis Requested			Job #:																																																																																																																																							
Address: 241 Ralph McGill Blvd SE B10185				Due Date Requested:				Total Number of containers	Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Y - Trizma Z - other (specify) Other:																																																																																																																																						
City: Atlanta				TAT Requested (days):	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_S2.F - Sulfide (FILL COMPLETELY)																																																																																																																																								
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Project Name: Plant McManus - Supplemental				Project #:				Sample Identification																																																																																																																																							
Site:				SSOW#:	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=comp, G=grab)</th> <th>Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)</th> <th>Field Filtered Sample (Yes or No)</th> <th>Perform MS/MSD (Yes or No)</th> <th>SM4500_S2.F - Sulfide (FILL COMPLETELY)</th> <th>Total Number of containers</th> </tr> </thead> <tbody> <tr> <td><i>12/16/23</i></td> <td><i>17:30</i></td> <td><i>G</i></td> <td><i>W</i></td> <td><i>X</i></td> <td><i>X</i></td> <td><i>X</i></td> <td></td> </tr> <tr> <td><i>12/16/23</i></td> <td><i>18:58</i></td> <td><i>G</i></td> <td><i>W</i></td> <td><i>X</i></td> <td><i>X</i></td> <td><i>X</i></td> <td></td> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>						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)	SM4500_S2.F - Sulfide (FILL COMPLETELY)	Total Number of containers	<i>12/16/23</i>	<i>17:30</i>	<i>G</i>	<i>W</i>	<i>X</i>	<i>X</i>	<i>X</i>		<i>12/16/23</i>	<i>18:58</i>	<i>G</i>	<i>W</i>	<i>X</i>	<i>X</i>	<i>X</i>																																																																																																														
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Login Sample Receipt Checklist

Client: Southern Company

Job Number: 680-243970-1

Login Number: 243970

List Source: Eurofins Savannah

List Number: 1

Creator: Stewart, Rendaisha

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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 <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

**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 30 groundwater samples collected as part of the September 2023 semi-annual monitoring at the Georgia Power McManus Fossil Plant facility. These samples were collectively analyzed by GEL Laboratories, LLC (GEL) in Charleston, South Carolina, for total metals and dissolved metals (manganese and iron only) by SW-846 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; and for total sulfide by SM 4500-S (2-) D.

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 9/12/23 through 9/14/23 were evaluated as part of this QA review.

The following samples were evaluated as part of this QA review: MCM-DPZ-02, MCM-DR-01, MCM-DR-02, MCM-MCM-01, MCM-MCM-02, MCM-MCM-04, MCM-MCM-05, MCM-MCM-06, MCM-MCM-07, MCM-MCM-11, MCM-MCM-12, MCM-MCM-14, MCM-MCM-15, MCM-MCM-16, MCM-MCM-17, MCM-MCM-18, MCM-MCM-19, MCM-MCM-20, MCM-PT-01, MCM-PT-02, MCM-PT-03, MCM-PT-04D, MCM-AP1-FD-01, MCM-AP1-FD-02, MCM-AP1-FD-03, MCM-AP1-FB-1, MCM-AP1-FB-02, MCM-AP1-FB-03, MCM-AP1-EB-01, and MCM-AP1-EB-02.

The following GEL inorganic SDG was evaluated as part of this QA review: 637268.

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
- Field duplicate precision
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries and 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 “received by” time listed on the COC (10:30) does not match the “received by” time listed in the report (12:00).
2. One additional sample, PW (laboratory ID: 637268031), was included in the data package but was not validated at the request of the client.
3. In the anions fraction, sample MCM-AP1-FB-03 was re-analyzed due to its proximity to an overrange sample. The reanalysis was performed within the method required holding time and qualification of data was not warranted.
4. 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 $\leq 20\%$ when both results were $\geq 5\times$ the reporting limit [RL], the difference between results was \leq the RL when at least one result was $< 5\times$ the RL).

<u>Laboratory SDG</u>	<u>Sample</u>	<u>Field Duplicate</u>
637268	MCM-MCM-15	MCM-AP1-FD-01
637268	MCM-MCM-04	MCM-AP1-FD-02
637268	MCM-MCM-18	MCM-AP1-FD-03

Overall Assessment of Data

Based on a review of the data, qualification of data was warranted as noted below.

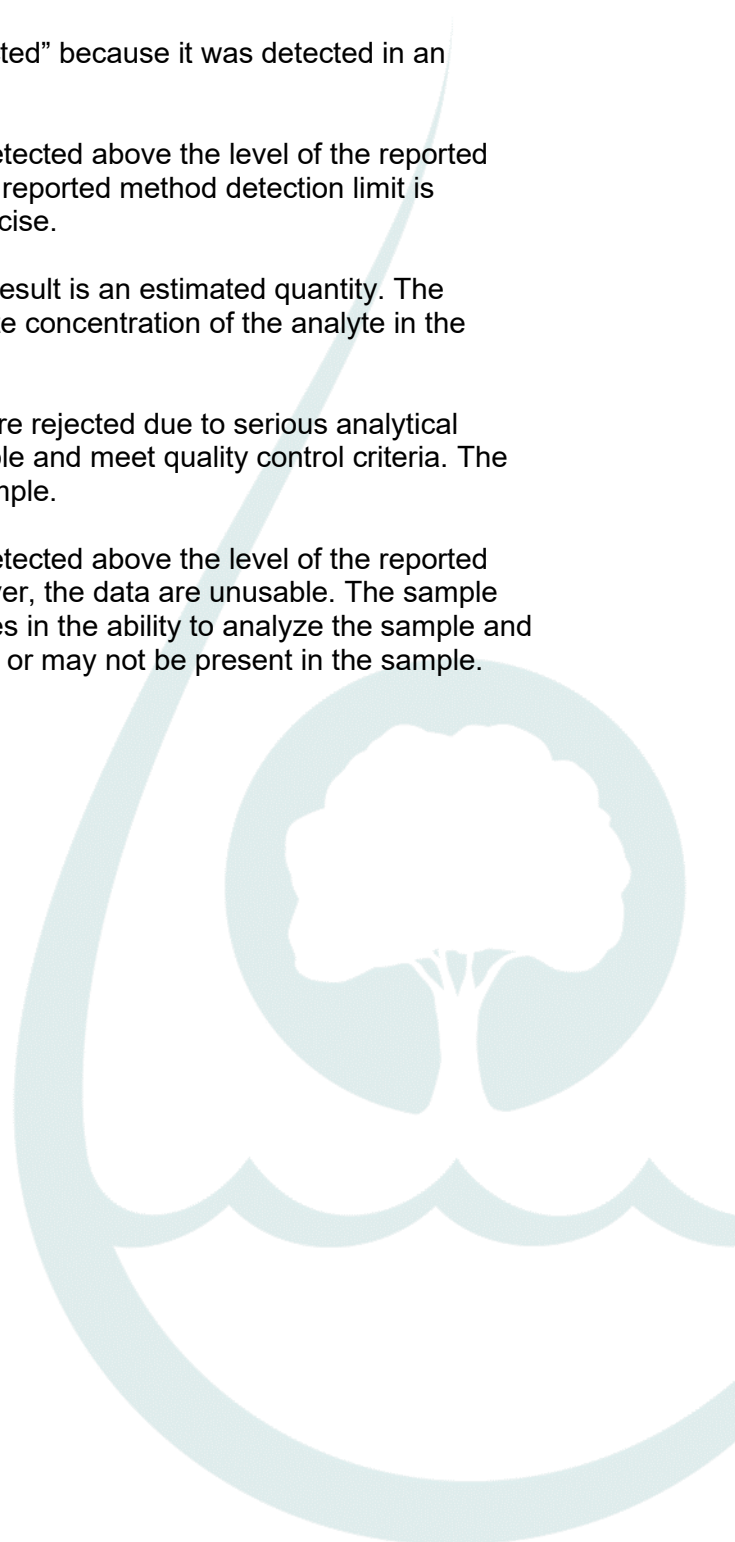
<u>Laboratory SDG</u>	<u>Sample(s)</u>	<u>Analyte</u>	<u>Qualifier(s)</u>	<u>Reason(s) for Qualification</u>
637268	MCM-DR-01, MCM-MCM-06, MCM-MCM-18, MCM-PT-01, and MCM-PT-03	fluoride	U*	BE – Equipment blank contamination
637268	MCM-MCM-17	iron	U*	BF – Field blank contamination
637268	MCM-MCM-17 and MCM-MCM-19	lithium	U*	BF – Field blank contamination
637268	MCM-MCM-05, MCM-MCM-12 and MCM-MCM-14	lithium	U*	BE – Equipment blank contamination
637268	MCM-MCM-07 and MCM-MCM-11	lithium	U*	BF – Field blank contamination BE – Equipment blank contamination
637268	MCM-MCM-05, MCM-MCM-12, MCM-MCM-14, MCM-MCM-15, MCM-MCM-16, MCM-MCM-02, MCM-MCM-06, MCM-MCM-18, MCM-DPZ-02, MCM-PT-01, MCM-PT-02, MCM-PT-03, MCM-PT-04D, MCM-DR-01 and MCM-DR-02	fluoride	UJ/J (unless previously flagged U*)	M- – Low MS/MSD recoveries

- All inorganic positive results reported between the method detection limit (MDL) and RL have been flagged “J” (unless previously qualified “U*”).

Report prepared by: Kortney Blaufuss, Quality Assurance Chemist
 Report reviewed by: Abigail Bossbaly, Quality Assurance Chemist
 Report approved by: David I. Thal, CEAC, CQA, Principal Chemist
 Date: 10/23/2023

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

**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 16 groundwater samples collected as part of the September 2023 semi-annual monitoring at the Georgia Power McManus Fossil Plant facility. These samples were collectively analyzed by GEL Laboratories, LLC (GEL) in Charleston, South Carolina, for radium-226 by US EPA Method 903.1, for radium-228 by US EPA Method 904.0, 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 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 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 9/12/23 through 9/14/23 were evaluated as part of this QA review.

The following samples were evaluated as part of this QA review: MCM-DPZ-02, MCM-MCM-01, MCM-MCM-02, MCM-MCM-04, MCM-MCM-05, MCM-MCM-06, MCM-MCM-07, MCM-MCM-11, MCM-MCM-12, MCM-MCM-14, MCM-MCM-15, MCM-MCM-16, MCM-MCM-17, MCM-MCM-18, MCM-MCM-19, and MCM-MCM-20.

The following GEL radiological SDG was evaluated as part of this QA review: 637305.

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 (MS) recoveries
- 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 “received by” time listed on the COC (10:30) does not match the “received by” time listed in the report (12:00).
2. One additional sample, PW (laboratory ID: 637305022), was included in the data package but was not validated at the request of the client.
3. 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.

4. 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; however, all negative activities were entered as zero in the calculation of combined radium-226+228 activity.
5. The combined radium-226+228 sample-specific minimum detectable concentration (MDC) was reported as the summation 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.
6. 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).
7. 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.

<u>Laboratory SDG(s)</u>	<u>Sample</u>	<u>Field Duplicate</u>
637305	MCM-MCM-15	MCM-AP1-FD-01
637305	MCM-MCM-04	MCM-AP1-FD-02
637305	MCM-MCM-18	MCM-AP1-FD-03

Overall Assessment of Data

Based on a review of the data, qualification of data was warranted as noted below.

<u>Laboratory SDG</u>	<u>Sample(s)</u>	<u>Analyte(s)</u>	<u>Qualifier</u>	<u>Reason for Qualification</u>
637305	MCM-MCM-18	combined radium-226+228	J	FD – field duplicate imprecision
637305	MCM-MCM-05, MCM-MCM-12, MCM-MCM-14, and MCM-MCM-15	combined radium-226+228	J	BF – field blank contamination

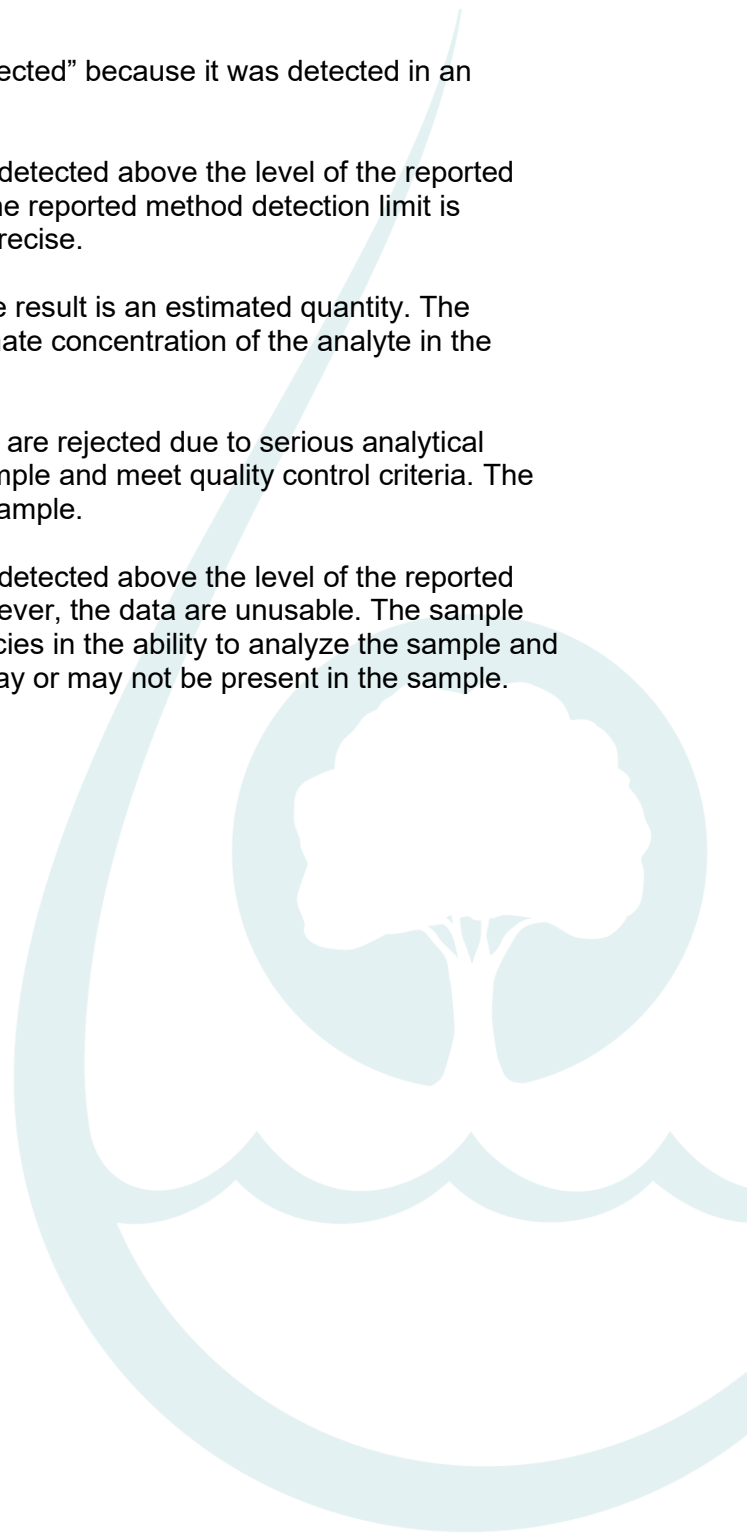
- All radiological results reported below the MDC have been flagged “U.”

Report prepared by: Kortney A. Blaufuss, Quality Assurance Chemist/Project Manager
 Report reviewed by: Alyssa M. Reed, Senior Quality Assurance Chemist
 Report approved by: David I. Thal, CEAC, CQA, Principal Chemist
 Date: 11/10/2023



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

**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 nine groundwater samples collected as part of the December 2023 supplemental sampling event at the Georgia Power McManus Fossil Plant facility. These samples were collectively analyzed by GEL Laboratories, LLC (GEL) in Charleston, South Carolina, and Eurofins Environment Testing Southeast, LLC (Eurofins Savannah) in Savannah, Georgia, for total metals (specifically, arsenic, iron, manganese, magnesium, potassium, and/or sodium) and dissolved metals (specifically, iron and manganese) by SW-846 6020B; for total dissolved solids (TDS) by Standard Method (SM) 2540C; for anions (specifically, chloride, fluoride, sulfate, and/or nitrate as nitrogen) by US EPA Method 300.0; for alkalinity by SM 2320B; and for sulfide by SM 4500 S2 F.

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 12/6/23 were evaluated as part of this QA review.

The following samples were evaluated as part of this QA review: MCM-DPZ-02, MCM-DR-01, MCM-DR-02, MCM-MCM-06, MCM-MCM-20, MCM-PT-01, MCM-PT-02, MCM-PT-03, and MCM-PT-04D.

The following GEL and Eurofins inorganic SDGs were evaluated as part of this QA review: 647813 and 680-243970-1.

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/laboratory control sample duplicate (LCS/LCSD) recoveries and precision
- Laboratory duplicate precision
- Sample holding times
- Case Narratives
- Field duplicate precision
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries and 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. It should be noted that the COC included in Eurofins Savannah SDG, 680-243970-1, has all samples marked “yes” to perform MS/MSD analysis, even though an MS/MSD was only performed on sample DPZ-02.
2. The Case Narrative in Eurofins Savannah SDG 680-243970-1 noted samples MCM-06, DPZ-02, PT-01, PT-02, PT-03, PT-04D, DR-01, DR-02, and AP1-FD-01 contained un-precipitated sulfide. Zinc acetate was added to the samples prior to analysis until all sulfide had precipitated. Qualification of data due to this issue was not warranted.
3. The following field duplicate pair was 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 $\leq 20\%$ when both results were $\geq 5\times$ the reporting limit [RL], the difference between results was \leq the RL when at least one result was $< 5\times$ the RL).

<u>Laboratory SDG(s)</u>	<u>Sample</u>	<u>Field Duplicate</u>
647813 680-243970-1	MCM-DPZ-2	MCM-AP1-FD-01

Overall Assessment of Data

Based on a review of the data, qualification of data was warranted as noted below.

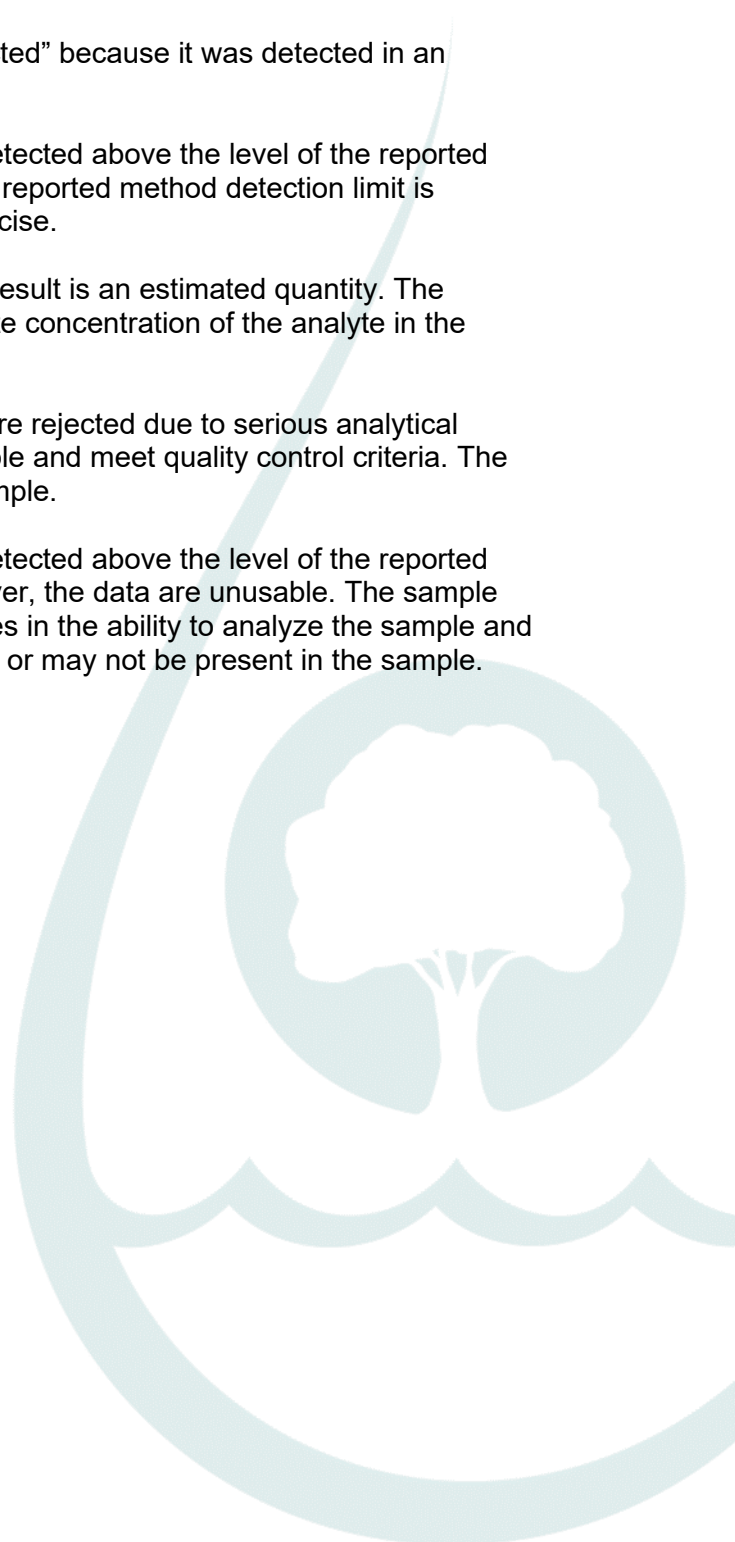
<u>Laboratory SDG</u>	<u>Sample(s)</u>	<u>Analyte</u>	<u>Qualifier(s)</u>	<u>Reason(s) for Qualification</u>
647813	MCM-MCM-06	fluoride	J	M- – Low MS recovery
647813	MCM-DR-01, MCM-DR-02, MCM-MCM-20, MCM-PT-01, MCM-PT-02, MCM-PT-03, MCM-PT-04D, and MCM-DPZ-2	sulfate	J	M- – Low MS recovery
647813	MCM-DPZ-2	TDS	J	ZZ – consecutive weight checks did not meet acceptance criteria

- All inorganic positive results reported between the method detection limit (MDL) and RL have been flagged “J”.

Report prepared by: Kortney Blaufuss, Quality Assurance Chemist
 Report reviewed by: Alyssa M. Reed, Senior Quality Assurance Chemist
 Report approved by: David I. Thal, CEAC, CQA, Principal Chemist
 Date: 1/22/2024

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.
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- 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

Site Name McClain

Field Instrumentation Calibration Form

Date 9/12/23

Calibrated By KMS

Field Conditions 90°/70°/50%

Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	AquaTroll 400	1282317
Turbidity Meter	LaMotte 2020	9453-4417

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24000044	05/2024	Atlanta Instrument Rental, Inc
pH (SU)	4.00	24000044	05/2024	Atlanta Instrument Rental, Inc
pH (SU)	7.00	22280138	04/2024	Atlanta Instrument Rental, Inc
pH (SU)	10.00	22110130	04/2024	Atlanta Instrument Rental, Inc
D.O. (%)	N/A	24000044	05/2024	Atlanta Instrument Rental, Inc
ORP (mV)	228.0	24002258	08/2024	Atlanta Instrument Rental, Inc

Calibration					
Time Start	Time Finish				
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4.5117	27.51	± 10% of standard	EPA 2023
pH (SU)	4.00	4.03	27.35	± 0.1	GWMP
pH (SU)	7.00	7.05	27.40	± 0.1	GWMP
pH (SU)	10.00	10.08	27.40	± 0.1	GWMP
D.O. (%)	N/A	88.08	26.68	± 10%	NA
ORP (mV)	228.0	177.3	27.14	± 10	EPA 2023

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	0.00	0.00		
	1.00	0.85		
	10.00	9.57		

Calibration Check					
Time Start	Time Finish				
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4624.2	33.37	± 10% of standard	EPA 2023
pH (SU)	4.00	4.13	33.72	± 0.1	GWMP
pH (SU)	7.00	7.17	32.93	± 0.1	GWMP
pH (SU)	10.00	10.09	33.57	± 0.1	GWMP

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	0.00	0.05		
	1.00	0.91		
	10.00	9.67		

Notes

Site Name Madras

Field Instrumentation Calibration Form

Date 9/13/23

Calibrated By KMS

Field Conditions 90°/70°/100/10

Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	AquaTroll 400	789317
Turbidity Meter	LaMotte 2020	7042-3818

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4.490	24000044	05/2024	Allanta Instrument Rental, Inc
pH (SU)	4.00	24000044	05/2024	Allanta Instrument Rental, Inc
pH (SU)	7.00	22290139	04/2024	Allanta Instrument Rental, Inc
pH (SU)	10.00	22110130	04/2024	Allanta Instrument Rental, Inc
D O (%)	N/A	24000044	05/2024	Allanta Instrument Rental, Inc
ORP (mV)	228.0	24002258	06/2024	Allanta Instrument Rental, Inc

Calibration					
Time Start	Time Finish				
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4.490	4484.4	26.87	± 10% of standard	EPA 2023
pH (SU)	4.00	4.00	27.05	± 0.1	GWMP
pH (SU)	7.00	6.99	26.13	± 0.1	GWMP
pH (SU)	10.00	10.01	26.44	± 0.1	GWMP
D O (%)	N/A	100.08	26.63	± 10%	NA
ORP (mV)	228.0	231.9	26.32	± 10	EPA 2023

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	0.00	-0.01		
	1.00	0.94		
	10.00	9.82		

Calibration Check					
Time Start	Time Finish				
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4.490	4642.3	33.60	± 10% of standard	EPA 2023
pH (SU)	4.00	4.17	33.42	± 0.1	GWMP
pH (SU)	7.00	7.21	34.14	± 0.1	GWMP
pH (SU)	10.00	10.25	33.79	± 0.1	GWMP

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	0.00	-0.02		
	1.00	0.89		
	10.00	9.15		

Notes

Site Name McManns

Field Instrumentation Calibration Form

Date 8/14/23

Calibrated By KMS

Field Conditions 88° F / 10' / 10'

Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	AquaTroll 400	789317
Turbidity Meter	LaMotte 2020	7042-388

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4.490	24000044	05/2024	Atlanta Instrument Rental, Inc
pH (SU)	4.00	24000044	05/2024	Atlanta Instrument Rental, Inc
pH (SU)	7.00	22290139	04/2024	Atlanta Instrument Rental, Inc
pH (SU)	10.00	22110130	04/2024	Atlanta Instrument Rental, Inc
D.O (%)	N/A	24000044	05/2024	Atlanta Instrument Rental, Inc
ORP (mV)	228.0	24002258	06/2024	Atlanta Instrument Rental, Inc

Calibration					
Time Start <u>0818</u>		Time Finish <u>0847</u>			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4.490	4.561.4	26.87	± 10% of standard	EPA 2023
pH (SU)	4.00	4.02	27.06	± 0.1	GWMP
pH (SU)	7.00	7.01	26.98	± 0.1	GWMP
pH (SU)	10.00	10.01	27.40	± 0.1	GWMP
D.O (%)	N/A	98.4	26.59	± 10%	NA
ORP (mV)	228.0	225.7	27.81	± 10	EPA 2023

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	0.00	0.12		
	1.00	1.13		
	10.00	9.43		

Calibration Check					
Time Start <u>1418</u>		Time Finish <u>1449</u>			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4.490	4.699.2	32.64	± 10% of standard	EPA 2023
pH (SU)	4.00	4.17	32.58	± 0.1	GWMP
pH (SU)	7.00	7.09	32.11	± 0.1	GWMP
pH (SU)	10.00	10.03	31.78	± 0.1	GWMP

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	0.00	-0.01		
	1.00	0.93		
	10.00	9.45		

Notes

9/13/23

Site Name: McManus

Field Instrumentation Calibration Form

Date: ~~9/13/23~~

Calibrated By: Meredith Duran

Field Conditions: 85°

Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	AquaTroll 400	789301
Turbidity Meter	LaMotte 2020	2068-0320

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24000044	05/2024	Atlanta Instrument Rental, Inc.
pH (SU)	4.00	24000044	05/2024	Atlanta Instrument Rental, Inc.
pH (SU)	7.00	22290139	04/2024	Atlanta Instrument Rental, Inc.
pH (SU)	10.00	22110130	04/2024	Atlanta Instrument Rental, Inc.
D.O. (%)	N/A	24000044	05/2024	Atlanta Instrument Rental, Inc.
ORP (mV)	228.0	24002258	06/2024	Atlanta Instrument Rental, Inc.

Calibration					
Time Start	Time Finish				
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4357.4	25.88	± 10% of standard	EPA 2023
pH (SU)	4.00	3.85	25.69	± 0.1	GWMP
pH (SU)	7.00	6.78	25.60	± 0.1	GWMP
pH (SU)	10.00	9.84	25.24	± 0.1	GWMP
D.O. (%)	N/A	102.04	25.08	± 10%	NA
ORP (mV)	228.0	238.9	25.71	± 10	EPA 2023

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	0.00	0.00		
	1.00	0.92		
	10.00	9.78		

Calibration Check					
Time Start	Time Finish				
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4593.3	31.99	± 10% of standard	EPA 2023
pH (SU)	4.00	4.16	31.80	± 0.1	GWMP
pH (SU)	7.00	7.17	31.24	± 0.1	GWMP
pH (SU)	10.00	10.14	31.29	± 0.1	GWMP

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	0.00	0.01		
	1.00	1.01		
	10.00	9.91		

Notes



Site Name: McManus

Field Instrumentation Calibration Form

Date: 9/14/23

Calibrated By: Mercedith Duncan

Field Conditions: 87°

Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	AquaTroll 400	789301
Turbidity Meter	LaMotte 2020	2068-0320

Calibration Standard Information					
Parameter	Standard	Lot #	Date of Expiration	Brand	
Specific Conductance (µS/cm)	4,490	24000044	05/2024	Atlanta Instrument Rental, Inc.	
pH (SU)	4.00	24000044	05/2024	Atlanta Instrument Rental, Inc.	
pH (SU)	7.00	22290139	04/2024	Atlanta Instrument Rental, Inc.	
pH (SU)	10.00	22110130	04/2024	Atlanta Instrument Rental, Inc.	
D.O. (%)	N/A	24000044	05/2024	Atlanta Instrument Rental, Inc.	
ORP (mV)	228.0	24002258	06/2024	Atlanta Instrument Rental, Inc.	

Calibration					
Time Start <u>0813</u>		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4423.1	24.15	± 10% of standard	EPA 2023
pH (SU)	4.00	3.90	24.29	± 0.1	GWMP
pH (SU)	7.00	6.86	24.83	± 0.1	GWMP
pH (SU)	10.00	9.89	24.94	± 0.1	GWMP
D.O. (%)	N/A	96.82	23.85	± 10%	NA
ORP (mV)	228.0	229.4	24.83	± 10	EPA 2023

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	0.00	0.03		
	1.00	1.17		
	10.00	9.96		

Calibration Check					
Time Start <u>1703</u>		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4525	30.18	± 10% of standard	EPA 2023
pH (SU)	4.00	4.06	30.06	± 0.1	GWMP
pH (SU)	7.00	7.18	29.25	± 0.1	GWMP
pH (SU)	10.00	10.10	29.89	± 0.1	GWMP

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	0.00	0.96		
	1.00	1.01		
	10.00	10.07		

Notes:

Site Name: McManus

Field Instrumentation Calibration Form

Date: 9/12/23

Calibrated By: Meredith Duncan

Field Conditions: 83°

Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	AquaTroll 400	093477 789301
Turbidity Meter	LaMotte 2020	7042-3818

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24000044	05/2024	Atlanta Instrument Rental, Inc.
pH (SU)	4.00	24000044	05/2024	Atlanta Instrument Rental, Inc.
pH (SU)	7.00	22290139	04/2024	Atlanta Instrument Rental, Inc.
pH (SU)	10.00	22110130	04/2024	Atlanta Instrument Rental, Inc.
D.O. (%)	N/A	24000044	05/2024	Atlanta Instrument Rental, Inc.
ORP (mV)	228.0	24002258	06/2024	Atlanta Instrument Rental, Inc.

Calibration					
Time Start		Time Finish			
0800 0818		0830			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4618.1	25.33	± 10% of standard	EPA 2023
pH (SU)	4.00	4.25	25.37	± 0.1	GWMP
pH (SU)	7.00	7.17	25.41	± 0.1	GWMP
pH (SU)	10.00	10.05	25.53	± 0.1	GWMP
D.O. (%)	N/A	109.60%	25.37	± 10%	NA
ORP (mV)	228.0	215.8	25.54	± 10	EPA 2023

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	0.00	0.02		
	1.00	0.91		
	10.00	9.82		
		± 10% of standard	EPA 2023	

Calibration Check					
Time Start		Time Finish			
1517					
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4947.9	32.10	± 10% of standard	EPA 2023
pH (SU)	4.00	4.16	31.99	± 0.1	GWMP
pH (SU)	7.00	7.19	31.91	± 0.1	GWMP
pH (SU)	10.00	10.06	31.82	± 0.1	GWMP

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	0.00	0.01		
	1.00	0.98		
	10.00	10.01		
		± 10% of standard	EPA 2023	

Notes:

Site Name: McManus

Field Instrumentation Calibration Form

Date: 9/13/23

Calibrated By: William Loaker

Field Conditions: 81°/68° sunny

50% storms

Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	AquaTroll 400	789310
Turbidity Meter	LaMotte 2020	9429-4417

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24000044	05/2024	Atlanta Instrument Rental, Inc.
pH (SU)	4.00	24000044	05/2024	Atlanta Instrument Rental, Inc.
pH (SU)	7.00	22290139	04/2024	Atlanta Instrument Rental, Inc.
pH (SU)	10.00	22110130	04/2024	Atlanta Instrument Rental, Inc.
D.O. (%)	N/A	24000044	05/2024	Atlanta Instrument Rental, Inc.
ORP (mV)	228.0	24002258	06/2024	Atlanta Instrument Rental, Inc.

Calibration					
Time Start	Time Finish				
<u>1050</u>	<u>1115</u>				
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	<u>4395.9</u>	<u>26.67</u>	± 10% of standard	EPA 2023
pH (SU)	4.00	<u>3.93</u>	<u>26.70</u>	± 0.1	GWMP
pH (SU)	7.00	<u>6.98</u>	<u>26.01</u>	± 0.1	GWMP
pH (SU)	10.00	<u>9.94</u>	<u>25.67</u>	± 0.1	GWMP
D.O. (%)	N/A	<u>105.93</u>	<u>26.98</u>	± 10%	NA
ORP (mV)	228.0	<u>229.8</u>	<u>25.80</u>	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	0.00	<u>0.00</u>	± 10% of standard	EPA 2023
	1.00	<u>1.21</u>		
	10.00	<u>10.26</u>		

Calibration Check					
Time Start	Time Finish				
<u>1751</u>					
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	<u>4672.2</u>	<u>32.82</u>	± 10% of standard	EPA 2023
pH (SU)	4.00	<u>4.09</u>	<u>32.53</u>	± 0.1	GWMP
pH (SU)	7.00	<u>7.10</u>	<u>32.09</u>	± 0.1	GWMP
pH (SU)	10.00	<u>10.10</u>	<u>31.94</u>	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	0.00	<u>0.02</u>	± 10% of standard	EPA 2023
	1.00	<u>1.05</u>		
	10.00	<u>10.13</u>		

Notes

Site Name: McManus

Field Instrumentation Calibration Form

Date: 9/14/23

Calibrated By: William Loaker

Field Conditions: 86°/70° sunny
50 i. storms

Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	AquaTroll 400	789310
Turbidity Meter	LaMotte 2020	9426-4417

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4.490	24000044	05/2024	Atlanta Instrument Rental, Inc.
pH (SU)	4.00	24000044	05/2024	Atlanta Instrument Rental, Inc.
pH (SU)	7.00	22290139	04/2024	Atlanta Instrument Rental, Inc.
pH (SU)	10.00	22110130	04/2024	Atlanta Instrument Rental, Inc.
D.O. (%)	N/A	24000044	05/2024	Atlanta Instrument Rental, Inc.
ORP (mV)	228.0	24002258	06/2024	Atlanta Instrument Rental, Inc.

Calibration					
Time Start <u>812</u>		Time Finish <u>824</u>			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4.490	<u>4519.7</u>	<u>24.87</u>	± 10% of standard	EPA 2023
pH (SU)	4.00	<u>4.07</u>	<u>24.92</u>	± 0.1	GWMP
pH (SU)	7.00	<u>7.05</u>	<u>24.77</u>	± 0.1	GWMP
pH (SU)	10.00	<u>10.02</u>	<u>24.70</u>	± 0.1	GWMP
D.O. (%)	N/A	<u>95.80</u>	<u>24.79</u>	± 10%	NA
ORP (mV)	228.0	<u>225.3</u>	<u>25.01</u>	± 10	EPA 2023

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	0.00	<u>0.05</u>		
	1.00	<u>1.17</u>		
	10.00	<u>10.12</u>		

Calibration Check					
Time Start <u>1704</u>		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4.490	<u>4578.3</u>	<u>28.86</u>	± 10% of standard	EPA 2023
pH (SU)	4.00	<u>4.09</u>	<u>28.84</u>	± 0.1	GWMP
pH (SU)	7.00	<u>7.08</u>	<u>28.85</u>	± 0.1	GWMP
pH (SU)	10.00	<u>10.06</u>	<u>29.47</u>	± 0.1	GWMP

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	0.00	<u>0.00</u>		
	1.00	<u>1.15</u>		
	10.00	<u>10.10</u>		

Notes

Low-Flow Test Report:

Test Date / Time: 9/12/2023 9:44:33 AM

Project: September 2023 McManus CCR Event

Operator Name: Meredith Duncan

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: 8.42 ft	Pump Type: QED Dedicated Tubing Type: PVC Pump Intake From TOC: 24 ft Estimated Total Volume Pumped: 5400 ml Flow Cell Volume: 90 ml Final Flow Rate: 150 ml/min Final Draw Down: 1.34 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789301
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Test Notes:

Prepurge 3L

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	+/- 10	
9/12/2023 9:44 AM	00:00	6.41 pH	25.83 °C	1,985.1 µS/cm	0.01 mg/L	1.29 NTU	-119.7 mV	9.65 ft	1.02 PSU	150.00 ml/min
9/12/2023 9:48 AM	04:00	6.42 pH	25.85 °C	1,983.3 µS/cm	0.00 mg/L	1.62 NTU	-92.5 mV	9.70 ft	1.02 PSU	150.00 ml/min
9/12/2023 9:52 AM	08:00	6.41 pH	25.96 °C	1,985.9 µS/cm	0.00 mg/L	2.77 NTU	-85.5 mV	9.75 ft	1.02 PSU	150.00 ml/min
9/12/2023 9:56 AM	12:00	6.41 pH	26.05 °C	1,988.0 µS/cm	0.00 mg/L	2.18 NTU	-78.4 mV	9.76 ft	1.03 PSU	150.00 ml/min
9/12/2023 10:00 AM	16:00	6.42 pH	26.12 °C	1,989.8 µS/cm	0.00 mg/L	2.50 NTU	-73.5 mV	9.76 ft	1.03 PSU	150.00 ml/min
9/12/2023 10:04 AM	20:00	6.42 pH	26.11 °C	1,990.7 µS/cm	0.00 mg/L	2.57 NTU	-70.3 mV	9.76 ft	1.03 PSU	150.00 ml/min
9/12/2023 10:08 AM	24:00	6.42 pH	26.16 °C	1,991.6 µS/cm	0.00 mg/L	2.50 NTU	-66.7 mV	9.76 ft	1.03 PSU	150.00 ml/min
9/12/2023 10:12 AM	28:00	6.42 pH	26.23 °C	1,991.8 µS/cm	-0.01 mg/L	2.84 NTU	-64.4 mV	9.76 ft	1.03 PSU	150.00 ml/min
9/12/2023 10:16 AM	32:00	6.42 pH	26.15 °C	1,993.2 µS/cm	-0.01 mg/L	2.69 NTU	-63.3 mV	9.76 ft	1.03 PSU	150.00 ml/min
9/12/2023 10:20 AM	36:00	6.43 pH	26.33 °C	1,997.6 µS/cm	0.00 mg/L	2.60 NTU	-61.0 mV	9.76 ft	1.03 PSU	150.00 ml/min

Samples

Sample ID:	Description:
MCM-12	Metals, Inorganics, TDS, Radium

Low-Flow Test Report:

Test Date / Time: 9/12/2023 10:32:15 AM

Project: September 2023 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: 3.61 ft	Pump Type: QED Dedicated Tubing Type: LDPE Pump Intake From TOC: 22.32 ft Estimated Total Volume Pumped: 4800 ml Flow Cell Volume: 90 ml Final Flow Rate: 240 ml/min Final Draw Down: 0.05 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789317
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Test Notes:

Pre-purged 3 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 %	
9/12/2023 10:32 AM	00:00	4.55 pH	27.70 °C	167.45 µS/cm	0.27 mg/L	3.56 NTU	168.1 mV	3.66 ft	0.08 PSU	240.00 ml/min
9/12/2023 10:36 AM	04:00	4.55 pH	27.12 °C	168.59 µS/cm	0.19 mg/L	4.31 NTU	158.1 mV	3.66 ft	0.08 PSU	240.00 ml/min
9/12/2023 10:40 AM	08:00	4.54 pH	27.06 °C	167.58 µS/cm	0.15 mg/L	3.96 NTU	151.7 mV	3.66 ft	0.08 PSU	240.00 ml/min
9/12/2023 10:44 AM	12:00	4.55 pH	27.23 °C	166.18 µS/cm	0.12 mg/L	2.92 NTU	147.5 mV	3.66 ft	0.08 PSU	240.00 ml/min
9/12/2023 10:48 AM	16:00	4.54 pH	27.08 °C	166.77 µS/cm	0.12 mg/L	2.48 NTU	143.9 mV	3.66 ft	0.08 PSU	240.00 ml/min
9/12/2023 10:52 AM	20:00	4.54 pH	27.00 °C	167.24 µS/cm	0.12 mg/L	1.92 NTU	141.3 mV	3.66 ft	0.08 PSU	240.00 ml/min

Samples

Sample ID:	Description:
MCM-01	Metals, Inorganics, TDS, Radium

Low-Flow Test Report:

Test Date / Time: 9/12/2023 12:35:59 PM

Project: September 2023 McManus CCR Event

Operator Name: Meredith Duncan

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: 9.51 ft	Pump Type: QED Dedicated Tubing Type: PVC Pump Intake From TOC: 23.11 ft Estimated Total Volume Pumped: 3000 ml Flow Cell Volume: 90 ml Final Flow Rate: 150 ml/min Final Draw Down: 0.07 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789301
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Test Notes:

Prepurge 2L

Strong sulfur smell

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	+/- 10	
9/12/2023 12:35 PM	00:00	6.69 pH	28.20 °C	4,652.6 µS/cm	0.33 mg/L	0.23 NTU	-142.2 mV	9.56 ft	2.52 PSU	150.00 ml/min
9/12/2023 12:39 PM	04:00	6.69 pH	28.11 °C	4,584.4 µS/cm	0.30 mg/L	0.07 NTU	-133.0 mV	9.57 ft	2.48 PSU	150.00 ml/min
9/12/2023 12:43 PM	08:00	6.69 pH	28.17 °C	4,599.0 µS/cm	0.29 mg/L	0.18 NTU	-131.0 mV	9.57 ft	2.49 PSU	150.00 ml/min
9/12/2023 12:47 PM	12:00	6.69 pH	28.17 °C	4,583.9 µS/cm	0.23 mg/L	0.12 NTU	-132.9 mV	9.57 ft	2.48 PSU	150.00 ml/min
9/12/2023 12:51 PM	16:00	6.68 pH	28.03 °C	4,595.4 µS/cm	0.21 mg/L	0.15 NTU	-131.7 mV	9.58 ft	2.49 PSU	150.00 ml/min
9/12/2023 12:55 PM	20:00	6.68 pH	28.22 °C	4,583.5 µS/cm	0.19 mg/L	0.04 NTU	-133.8 mV	9.58 ft	2.48 PSU	150.00 ml/min

Samples

Sample ID:	Description:
MCM-14	Metals, Inorganics, TDS, Radium

Low-Flow Test Report:

Test Date / Time: 9/12/2023 12:38:05 PM

Project: September 2023 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: 18.21 ft Total Depth: 28.21 ft Initial Depth to Water: 9.04 ft	Pump Type: QED Dedicated Tubing Type: LDPE Pump Intake From TOC: 23.21 ft Estimated Total Volume Pumped: 6000 ml Flow Cell Volume: 90 ml Final Flow Rate: 300 ml/min Final Draw Down: 0.06 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789317
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Test Notes:

Pre-purged 2 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 %	
9/12/2023 12:38 PM	00:00	4.43 pH	27.35 °C	117.59 µS/cm	0.26 mg/L	0.96 NTU	142.4 mV	9.09 ft	0.06 PSU	300.00 ml/min
9/12/2023 12:42 PM	04:00	4.42 pH	25.59 °C	120.07 µS/cm	0.18 mg/L	1.47 NTU	142.3 mV	9.09 ft	0.06 PSU	300.00 ml/min
9/12/2023 12:46 PM	08:00	4.43 pH	25.17 °C	120.75 µS/cm	0.15 mg/L	0.52 NTU	140.9 mV	9.09 ft	0.06 PSU	300.00 ml/min
9/12/2023 12:50 PM	12:00	4.44 pH	25.16 °C	121.06 µS/cm	0.14 mg/L	0.33 NTU	140.1 mV	9.10 ft	0.06 PSU	300.00 ml/min
9/12/2023 12:54 PM	16:00	4.45 pH	25.25 °C	120.25 µS/cm	0.14 mg/L	0.39 NTU	139.5 mV	9.10 ft	0.06 PSU	300.00 ml/min
9/12/2023 12:58 PM	20:00	4.45 pH	25.04 °C	120.91 µS/cm	0.13 mg/L	0.44 NTU	139.6 mV	9.10 ft	0.06 PSU	300.00 ml/min

Samples

Sample ID:	Description:
MCM-16	Metals, Inorganics, TDS, Radium

Low-Flow Test Report:

Test Date / Time: 9/12/2023 2:00:41 PM

Project: September 2023 McManus CCR Event

Operator Name: Kevin Stephenson

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: 8.44 ft	Pump Type: QED Dedicated Tubing Type: LDPE Pump Intake From TOC: 21.6 ft Estimated Total Volume Pumped: 6240 ml Flow Cell Volume: 90 ml Final Flow Rate: 260 ml/min Final Draw Down: 0.1 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789317
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Test Notes:

Pre-purged 2 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 %	
9/12/2023 2:00 PM	00:00	4.39 pH	29.09 °C	53.66 µS/cm	0.78 mg/L	0.89 NTU	170.0 mV	8.54 ft	0.02 PSU	260.00 ml/min
9/12/2023 2:04 PM	04:00	4.40 pH	29.19 °C	52.22 µS/cm	0.47 mg/L	1.77 NTU	177.7 mV	8.54 ft	0.02 PSU	260.00 ml/min
9/12/2023 2:08 PM	08:00	4.40 pH	29.31 °C	51.52 µS/cm	0.29 mg/L	2.02 NTU	178.1 mV	8.54 ft	0.02 PSU	260.00 ml/min
9/12/2023 2:12 PM	12:00	4.40 pH	29.53 °C	50.77 µS/cm	0.19 mg/L	3.05 NTU	179.2 mV	8.54 ft	0.02 PSU	260.00 ml/min
9/12/2023 2:16 PM	16:00	4.40 pH	29.63 °C	50.65 µS/cm	0.16 mg/L	3.62 NTU	179.7 mV	8.54 ft	0.02 PSU	260.00 ml/min
9/12/2023 2:20 PM	20:00	4.41 pH	28.78 °C	51.01 µS/cm	0.15 mg/L	3.31 NTU	180.1 mV	8.54 ft	0.02 PSU	260.00 ml/min
9/12/2023 2:24 PM	24:00	4.40 pH	28.53 °C	50.80 µS/cm	0.14 mg/L	3.27 NTU	180.4 mV	8.54 ft	0.02 PSU	260.00 ml/min

Samples

Sample ID:	Description:
MCM-15	Metals, Inorganics, TDS, Radium
FD-01	Metals, Inorganics, TDS, Radium

Low-Flow Test Report:

Test Date / Time: 9/12/2023 2:03:14 PM

Project: September 2023 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: 7.23 ft	Pump Type: QED Dedicated Tubing Type: PVC Pump Intake From TOC: 23.05 ft Estimated Total Volume Pumped: 4800 ml Flow Cell Volume: 90 ml Final Flow Rate: 240 ml/min Final Draw Down: 0.1 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789301
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Test Notes:

Prepurge 2L

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	+/- 10	
9/12/2023 2:03 PM	00:00	6.74 pH	28.38 °C	4,377.2 µS/cm	0.77 mg/L	0.60 NTU	-192.1 mV	7.32 ft	2.36 PSU	240.00 ml/min
9/12/2023 2:07 PM	04:00	6.78 pH	26.78 °C	4,801.6 µS/cm	0.47 mg/L	0.34 NTU	-190.5 mV	7.33 ft	2.61 PSU	240.00 ml/min
9/12/2023 2:11 PM	08:00	6.80 pH	26.50 °C	5,000.0 µS/cm	0.14 mg/L	0.15 NTU	-194.7 mV	7.33 ft	2.72 PSU	240.00 ml/min
9/12/2023 2:15 PM	12:00	6.81 pH	26.34 °C	5,041.0 µS/cm	0.09 mg/L	0.13 NTU	-195.4 mV	7.33 ft	2.74 PSU	240.00 ml/min
9/12/2023 2:19 PM	16:00	6.81 pH	26.15 °C	5,040.3 µS/cm	0.09 mg/L	0.08 NTU	-194.3 mV	7.33 ft	2.74 PSU	240.00 ml/min
9/12/2023 2:23 PM	20:00	6.81 pH	25.87 °C	5,040.1 µS/cm	0.09 mg/L	0.12 NTU	-192.2 mV	7.33 ft	2.74 PSU	240.00 ml/min

Samples

Sample ID:	Description:
MCM-05	Metals, Inorganics, TDS, Radium

Low-Flow Test Report:

Test Date / Time: 9/13/2023 1:14:03 PM

Project: September 2023 McManus CCR Event

Operator Name: William Laaker

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: 4.88 ft	Pump Type: GeoTech Peristaltic Tubing Type: LDPE Pump Intake From TOC: 19 ft Estimated Total Volume Pumped: 6720 ml Flow Cell Volume: 90 ml Final Flow Rate: 240 ml/min Final Draw Down: 1.7 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789310
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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 %	
9/13/2023 1:14 PM	00:00	4.95 pH	27.03 °C	563.72 µS/cm	0.13 mg/L	3.14 NTU	107.3 mV	6.42 ft	0.28 PSU	240.00 ml/min
9/13/2023 1:18 PM	04:00	4.95 pH	26.88 °C	557.47 µS/cm	0.12 mg/L	3.46 NTU	110.9 mV	6.48 ft	0.27 PSU	240.00 ml/min
9/13/2023 1:22 PM	08:00	4.95 pH	26.95 °C	548.86 µS/cm	0.11 mg/L	2.17 NTU	110.9 mV	6.51 ft	0.27 PSU	240.00 ml/min
9/13/2023 1:26 PM	12:00	4.95 pH	26.91 °C	529.97 µS/cm	0.10 mg/L	1.30 NTU	111.4 mV	6.53 ft	0.26 PSU	240.00 ml/min
9/13/2023 1:30 PM	16:00	4.93 pH	26.82 °C	516.55 µS/cm	0.10 mg/L	0.75 NTU	112.3 mV	6.55 ft	0.25 PSU	240.00 ml/min
9/13/2023 1:34 PM	20:00	4.93 pH	26.81 °C	514.09 µS/cm	0.09 mg/L	0.78 NTU	112.8 mV	6.56 ft	0.25 PSU	240.00 ml/min
9/13/2023 1:38 PM	24:00	4.93 pH	26.74 °C	511.63 µS/cm	0.09 mg/L	0.79 NTU	113.5 mV	6.57 ft	0.25 PSU	240.00 ml/min
9/13/2023 1:42 PM	28:00	4.92 pH	26.73 °C	512.67 µS/cm	0.09 mg/L	0.72 NTU	114.4 mV	6.58 ft	0.25 PSU	240.00 ml/min

Samples

Sample ID:	Description:
MCM-11	Metals, Inorganics, TDS, Radium

Low-Flow Test Report:

Test Date / Time: 9/13/2023 1:22:39 PM

Project: September 2023 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: 6.95 ft	Pump Type: QED Dedicated Tubing Type: PVC Pump Intake From TOC: 18.75 ft Estimated Total Volume Pumped: 6720 ml Flow Cell Volume: 90 ml Final Flow Rate: 240 ml/min Final Draw Down: 0.71 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789301
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Test Notes:

Prepurge 2L

Sulfur Smell

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	+/- 10	
9/13/2023 1:22 PM	00:00	6.57 pH	27.41 °C	11,552 µS/cm	0.55 mg/L	13.00 NTU	-127.8 mV	7.60 ft	6.68 PSU	240.00 ml/min
9/13/2023 1:26 PM	04:00	6.55 pH	26.83 °C	12,177 µS/cm	0.33 mg/L	8.01 NTU	-126.6 mV	7.61 ft	7.07 PSU	240.00 ml/min
9/13/2023 1:30 PM	08:00	6.54 pH	26.83 °C	12,395 µS/cm	0.27 mg/L	5.76 NTU	-125.8 mV	7.62 ft	7.20 PSU	240.00 ml/min
9/13/2023 1:34 PM	12:00	6.54 pH	26.70 °C	12,513 µS/cm	0.17 mg/L	5.51 NTU	-125.6 mV	7.63 ft	7.28 PSU	240.00 ml/min
9/13/2023 1:38 PM	16:00	6.54 pH	26.51 °C	12,567 µS/cm	0.12 mg/L	5.03 NTU	-123.7 mV	7.64 ft	7.31 PSU	240.00 ml/min
9/13/2023 1:42 PM	20:00	6.54 pH	26.81 °C	12,669 µS/cm	0.12 mg/L	4.99 NTU	-124.1 mV	7.65 ft	7.38 PSU	240.00 ml/min
9/13/2023 1:46 PM	24:00	6.53 pH	26.88 °C	12,718 µS/cm	0.10 mg/L	4.66 NTU	-123.2 mV	7.65 ft	7.41 PSU	240.00 ml/min
9/13/2023 1:50 PM	28:00	6.53 pH	26.70 °C	12,754 µS/cm	0.09 mg/L	3.95 NTU	-122.4 mV	7.66 ft	7.43 PSU	240.00 ml/min

Samples

Sample ID:	Description:
MCM-07	Metals, Inorganics, TDS, Radium

Low-Flow Test Report:

Test Date / Time: 9/13/2023 1:54:11 PM

Project: September 2023 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: 6.96 ft	Pump Type: GeoTech Peristaltic Tubing Type: LDPE Pump Intake From TOC: 23.32 ft Estimated Total Volume Pumped: 5600 ml Flow Cell Volume: 90 ml Final Flow Rate: 280 ml/min Final Draw Down: 0.26 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789317
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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 %	
9/13/2023 1:54 PM	00:00	5.08 pH	28.90 °C	22,758 µS/cm	0.16 mg/L	0.96 NTU	126.3 mV	7.20 ft	13.95 PSU	280.00 ml/min
9/13/2023 1:58 PM	04:00	5.06 pH	26.99 °C	23,378 µS/cm	0.12 mg/L	0.78 NTU	109.9 mV	7.20 ft	14.36 PSU	280.00 ml/min
9/13/2023 2:02 PM	08:00	5.06 pH	27.13 °C	23,095 µS/cm	0.10 mg/L	0.48 NTU	103.8 mV	7.20 ft	14.17 PSU	280.00 ml/min
9/13/2023 2:06 PM	12:00	5.06 pH	26.77 °C	23,116 µS/cm	0.09 mg/L	0.39 NTU	100.4 mV	7.21 ft	14.18 PSU	280.00 ml/min
9/13/2023 2:10 PM	16:00	5.06 pH	26.81 °C	23,033 µS/cm	0.08 mg/L	0.45 NTU	98.2 mV	7.21 ft	14.13 PSU	280.00 ml/min
9/13/2023 2:14 PM	20:00	5.05 pH	27.22 °C	22,705 µS/cm	0.07 mg/L	0.40 NTU	96.7 mV	7.22 ft	13.91 PSU	280.00 ml/min

Samples

Sample ID:	Description:
MCM-19	Metals, Inorganics, TDS, Radium

Low-Flow Test Report:

Test Date / Time: 9/13/2023 3:56:45 PM

Project: September 2023 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: 8.96 ft	Pump Type: GeoTech Peristaltic Tubing Type: LDPE Pump Intake From TOC: 18.05 ft Estimated Total Volume Pumped: 5600 ml Flow Cell Volume: 90 ml Final Flow Rate: 280 ml/min Final Draw Down: 0.72 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789317
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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 %	
9/13/2023 3:56 PM	00:00	3.75 pH	32.34 °C	15,019 µS/cm	0.11 mg/L	0.37 NTU	213.2 mV	9.59 ft	8.87 PSU	280.00 ml/min
9/13/2023 4:00 PM	04:00	3.73 pH	27.80 °C	15,962 µS/cm	0.09 mg/L	0.08 NTU	211.2 mV	9.61 ft	9.48 PSU	280.00 ml/min
9/13/2023 4:04 PM	08:00	3.71 pH	27.61 °C	15,956 µS/cm	0.09 mg/L	0.16 NTU	215.3 mV	9.64 ft	9.47 PSU	280.00 ml/min
9/13/2023 4:08 PM	12:00	3.67 pH	26.97 °C	16,129 µS/cm	0.12 mg/L	0.17 NTU	240.8 mV	9.68 ft	9.58 PSU	280.00 ml/min
9/13/2023 4:12 PM	16:00	3.67 pH	27.11 °C	16,065 µS/cm	0.11 mg/L	0.24 NTU	246.8 mV	9.68 ft	9.54 PSU	280.00 ml/min
9/13/2023 4:16 PM	20:00	3.67 pH	27.31 °C	15,996 µS/cm	0.10 mg/L	0.06 NTU	241.0 mV	9.68 ft	9.50 PSU	280.00 ml/min

Samples

Sample ID:	Description:
MCM-20	Metals, Inorganics, TDS, Radium, Mn Total and Dissolved

Low-Flow Test Report:

Test Date / Time: 9/13/2023 4:17:08 PM

Project: September 2023 McManus CCR Event

Operator Name: Meredith Duncan

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: 8.82 ft	Pump Type: QED Dedicated Tubing Type: PVC Pump Intake From TOC: 23.57 ft Estimated Total Volume Pumped: 4000 ml Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 0.26 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789301
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Test Notes:

Prepurge 3L

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	+/- 10	
9/13/2023 4:17 PM	00:00	5.32 pH	23.34 °C	123.65 µS/cm	0.18 mg/L	4.49 NTU	82.4 mV	9.06 ft	0.06 PSU	200.00 ml/min
9/13/2023 4:21 PM	04:00	5.31 pH	23.39 °C	124.05 µS/cm	0.15 mg/L	4.28 NTU	69.0 mV	9.06 ft	0.06 PSU	200.00 ml/min
9/13/2023 4:25 PM	08:00	5.28 pH	23.27 °C	122.23 µS/cm	0.13 mg/L	3.74 NTU	61.7 mV	9.07 ft	0.06 PSU	200.00 ml/min
9/13/2023 4:29 PM	12:00	5.28 pH	23.12 °C	120.52 µS/cm	0.11 mg/L	2.25 NTU	53.8 mV	9.08 ft	0.06 PSU	200.00 ml/min
9/13/2023 4:33 PM	16:00	5.27 pH	23.16 °C	123.30 µS/cm	0.12 mg/L	1.96 NTU	50.3 mV	9.08 ft	0.06 PSU	200.00 ml/min
9/13/2023 4:37 PM	20:00	5.29 pH	23.24 °C	118.39 µS/cm	0.11 mg/L	1.41 NTU	62.6 mV	9.08 ft	0.06 PSU	200.00 ml/min

Samples

Sample ID:	Description:
MCM-04	Metals, Inorganics, TDS, Radium
FD-02	Metals, Inorganics, TDS, Radium

Low-Flow Test Report:

Test Date / Time: 9/13/2023 4:24:35 PM

Project: September 2023 McManus CCR Event

Operator Name: William Laaker

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: 8.75 ft	Pump Type: QED Dedicated Tubing Type: LDPE Pump Intake From TOC: 22.44 ft Estimated Total Volume Pumped: 10560 ml Flow Cell Volume: 90 ml Final Flow Rate: 220 ml/min Final Draw Down: 0.11 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789310
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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 %	
9/13/2023 4:24 PM	00:00	6.15 pH	26.60 °C	9,335.1 µS/cm	0.07 mg/L	1.51 NTU	-10.7 mV	8.86 ft	5.31 PSU	220.00 ml/min
9/13/2023 4:28 PM	04:00	6.17 pH	26.00 °C	9,500.0 µS/cm	0.05 mg/L	1.53 NTU	-6.8 mV	8.85 ft	5.41 PSU	220.00 ml/min
9/13/2023 4:32 PM	08:00	6.17 pH	25.86 °C	9,566.8 µS/cm	0.04 mg/L	2.12 NTU	-13.0 mV	8.85 ft	5.45 PSU	220.00 ml/min
9/13/2023 4:36 PM	12:00	6.18 pH	25.68 °C	9,620.3 µS/cm	0.04 mg/L	3.00 NTU	-32.6 mV	8.85 ft	5.48 PSU	220.00 ml/min
9/13/2023 4:40 PM	16:00	6.19 pH	25.61 °C	9,668.8 µS/cm	0.04 mg/L	3.41 NTU	-58.7 mV	8.85 ft	5.51 PSU	220.00 ml/min
9/13/2023 4:44 PM	20:00	6.21 pH	25.54 °C	9,722.2 µS/cm	0.04 mg/L	3.93 NTU	-82.7 mV	8.85 ft	5.54 PSU	220.00 ml/min
9/13/2023 4:48 PM	24:00	6.26 pH	25.65 °C	9,808.8 µS/cm	0.05 mg/L	4.17 NTU	-99.7 mV	8.85 ft	5.60 PSU	220.00 ml/min
9/13/2023 4:52 PM	28:00	6.32 pH	25.62 °C	9,864.5 µS/cm	0.05 mg/L	4.02 NTU	-107.4 mV	8.85 ft	5.63 PSU	220.00 ml/min
9/13/2023 4:56 PM	32:00	6.38 pH	25.47 °C	9,925.3 µS/cm	0.05 mg/L	4.21 NTU	-110.7 mV	8.85 ft	5.67 PSU	220.00 ml/min
9/13/2023 5:00 PM	36:00	6.43 pH	25.41 °C	10,000 µS/cm	0.04 mg/L	4.15 NTU	-112.3 mV	8.86 ft	5.71 PSU	220.00 ml/min
9/13/2023 5:04 PM	40:00	6.47 pH	25.40 °C	10,065 µS/cm	0.05 mg/L	3.82 NTU	-110.3 mV	8.86 ft	5.75 PSU	220.00 ml/min
9/13/2023 5:08 PM	44:00	6.52 pH	25.40 °C	10,094 µS/cm	0.05 mg/L	3.87 NTU	-109.6 mV	8.86 ft	5.77 PSU	220.00 ml/min
9/13/2023 5:12 PM	48:00	6.55 pH	25.22 °C	10,142 µS/cm	0.05 mg/L	3.60 NTU	-108.2 mV	8.86 ft	5.80 PSU	220.00 ml/min

Samples

Sample ID:	Description:
MCM-17	Metals, Inorganics, TDS, Radium

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 9/14/2023 9:38:18 AM

Project: September 2023 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: 5.78 ft	Pump Type: GeoTech Peristaltic Tubing Type: LDPE Pump Intake From TOC: 22.86 ft Estimated Total Volume Pumped: 5600 ml Flow Cell Volume: 90 ml Final Flow Rate: 280 ml/min Final Draw Down: 0.25 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789317
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Test Notes:

Pre-purged 2 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 %	
9/14/2023 9:38 AM	00:00	4.75 pH	28.00 °C	3,789.4 µS/cm	0.53 mg/L	1.40 NTU	192.0 mV	6.05 ft	2.03 PSU	280.00 ml/min
9/14/2023 9:42 AM	04:00	4.15 pH	25.68 °C	3,918.7 µS/cm	0.11 mg/L	0.64 NTU	170.3 mV	6.04 ft	2.10 PSU	280.00 ml/min
9/14/2023 9:46 AM	08:00	4.15 pH	26.16 °C	3,936.7 µS/cm	0.09 mg/L	0.82 NTU	156.9 mV	6.03 ft	2.11 PSU	280.00 ml/min
9/14/2023 9:50 AM	12:00	4.16 pH	25.93 °C	3,957.6 µS/cm	0.08 mg/L	0.68 NTU	148.6 mV	6.03 ft	2.12 PSU	280.00 ml/min
9/14/2023 9:54 AM	16:00	4.16 pH	26.15 °C	3,947.8 µS/cm	0.06 mg/L	0.60 NTU	143.3 mV	6.03 ft	2.12 PSU	280.00 ml/min
9/14/2023 9:58 AM	20:00	4.17 pH	26.25 °C	3,926.4 µS/cm	0.06 mg/L	0.25 NTU	140.2 mV	6.03 ft	2.10 PSU	280.00 ml/min

Samples

Sample ID:	Description:
MCM-18	Metals, Inorganics, TDS, Radium
FD-03	Metals, Inorganics, TDS, Radium

Low-Flow Test Report:

Test Date / Time: 9/14/2023 9:59:20 AM

Project: September 2023 McManus CCR Event

Operator Name: William Laaker

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: 5.88 ft	Pump Type: GeoTech Peristaltic Tubing Type: LDPE Pump Intake From TOC: 38.46 ft Estimated Total Volume Pumped: 3200 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: 789310
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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 %	
9/14/2023 9:59 AM	00:00	6.94 pH	25.40 °C	16,589 µS/cm	0.17 mg/L	0.27 NTU	-120.4 mV	6.09 ft	9.88 PSU	200.00 ml/min
9/14/2023 10:03 AM	04:00	6.94 pH	25.15 °C	17,107 µS/cm	0.13 mg/L	0.05 NTU	-131.3 mV	6.09 ft	10.21 PSU	200.00 ml/min
9/14/2023 10:07 AM	08:00	6.95 pH	25.04 °C	17,416 µS/cm	0.12 mg/L	0.38 NTU	-141.2 mV	6.09 ft	10.41 PSU	200.00 ml/min
9/14/2023 10:11 AM	12:00	6.95 pH	25.00 °C	17,460 µS/cm	0.10 mg/L	0.13 NTU	-147.7 mV	6.09 ft	10.44 PSU	200.00 ml/min
9/14/2023 10:15 AM	16:00	6.95 pH	25.03 °C	17,550 µS/cm	0.09 mg/L	0.10 NTU	-152.5 mV	6.09 ft	10.50 PSU	200.00 ml/min

Samples

Sample ID:	Description:
DPZ-02	Metals, Inorganics, TDS, Sulfide, Radium, Dis. Metals

Low-Flow Test Report:

Test Date / Time: 9/14/2023 9:59:41 AM

Project: September 2023 McManus CCR Event

Operator Name: Meredith Duncan

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: 3.69 ft	Pump Type: QED Dedicated Tubing Type: PVC Pump Intake From TOC: 20.36 ft Estimated Total Volume Pumped: 3600 ml Flow Cell Volume: 90 ml Final Flow Rate: 180 ml/min Final Draw Down: 0.02 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789301
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Test Notes:

Prepurge 2L

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	+/- 10	
9/14/2023 9:59 AM	00:00	7.21 pH	25.83 °C	7,289.9 µS/cm	0.18 mg/L	0.66 NTU	-218.5 mV	3.72 ft	4.07 PSU	180.00 ml/min
9/14/2023 10:03 AM	04:00	7.23 pH	25.46 °C	7,460.1 µS/cm	0.15 mg/L	0.40 NTU	-218.9 mV	3.72 ft	4.17 PSU	180.00 ml/min
9/14/2023 10:07 AM	08:00	7.23 pH	25.28 °C	7,474.9 µS/cm	0.13 mg/L	0.63 NTU	-218.0 mV	3.72 ft	4.18 PSU	180.00 ml/min
9/14/2023 10:11 AM	12:00	7.23 pH	25.17 °C	7,498.9 µS/cm	0.11 mg/L	0.50 NTU	-216.2 mV	3.71 ft	4.19 PSU	180.00 ml/min
9/14/2023 10:15 AM	16:00	7.23 pH	25.13 °C	7,488.2 µS/cm	0.11 mg/L	0.32 NTU	-214.6 mV	3.71 ft	4.19 PSU	180.00 ml/min
9/14/2023 10:19 AM	20:00	7.24 pH	25.06 °C	7,502.5 µS/cm	0.10 mg/L	0.12 NTU	-213.9 mV	3.71 ft	4.20 PSU	180.00 ml/min

Samples

Sample ID:	Description:
PT-03	Metals, Inorganics, TDS, Sulfide, Dis. Metals, As Spec.

Low-Flow Test Report:

Test Date / Time: 9/14/2023 11:20:17 AM

Project: September 2023 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: 4.15 ft	Pump Type: GeoTech Peristaltic Tubing Type: LDPE Pump Intake From TOC: 22.35 ft Estimated Total Volume Pumped: 4160 ml Flow Cell Volume: 90 ml Final Flow Rate: 260 ml/min Final Draw Down: 0.13 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789317
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Test Notes:

Pre-purged 2 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 %	
9/14/2023 11:20 AM	00:00	5.11 pH	27.47 °C	177.69 µS/cm	0.13 mg/L	3.88 NTU	131.5 mV	4.28 ft	0.08 PSU	260.00 ml/min
9/14/2023 11:24 AM	04:00	5.08 pH	25.99 °C	178.02 µS/cm	0.11 mg/L	1.45 NTU	121.3 mV	4.28 ft	0.08 PSU	260.00 ml/min
9/14/2023 11:28 AM	08:00	5.07 pH	25.35 °C	176.07 µS/cm	0.10 mg/L	1.11 NTU	117.1 mV	4.28 ft	0.08 PSU	260.00 ml/min
9/14/2023 11:32 AM	12:00	5.04 pH	25.65 °C	172.66 µS/cm	0.10 mg/L	0.89 NTU	115.3 mV	4.28 ft	0.08 PSU	260.00 ml/min
9/14/2023 11:36 AM	16:00	5.02 pH	26.43 °C	169.42 µS/cm	0.09 mg/L	0.88 NTU	113.9 mV	4.28 ft	0.08 PSU	260.00 ml/min

Samples

Sample ID:	Description:
MCM-02	Metals, Inorganics, TDS, Radium

Low-Flow Test Report:

Test Date / Time: 9/14/2023 11:30:15 AM

Project: September 2023 McManus CCR Event

Operator Name: William Laaker

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: 3.9 ft	Pump Type: GeoTech Peristaltic Tubing Type: LDPE Pump Intake From TOC: 35.85 ft Estimated Total Volume Pumped: 3520 ml Flow Cell Volume: 90 ml Final Flow Rate: 220 ml/min Final Draw Down: 0.5 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789310
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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 %	
9/14/2023 11:30 AM	00:00	7.16 pH	25.71 °C	13,310 µS/cm	0.28 mg/L	0.14 NTU	-263.1 mV	4.22 ft	7.78 PSU	220.00 ml/min
9/14/2023 11:34 AM	04:00	7.11 pH	25.31 °C	12,987 µS/cm	0.19 mg/L	0.11 NTU	-258.6 mV	4.29 ft	7.58 PSU	220.00 ml/min
9/14/2023 11:38 AM	08:00	7.11 pH	25.07 °C	12,938 µS/cm	0.14 mg/L	0.04 NTU	-256.8 mV	4.33 ft	7.54 PSU	220.00 ml/min
9/14/2023 11:42 AM	12:00	7.11 pH	24.97 °C	12,930 µS/cm	0.11 mg/L	0.01 NTU	-256.2 mV	4.37 ft	7.54 PSU	220.00 ml/min
9/14/2023 11:46 AM	16:00	7.11 pH	24.81 °C	12,846 µS/cm	0.10 mg/L	0.01 NTU	-254.5 mV	4.40 ft	7.49 PSU	220.00 ml/min

Samples

Sample ID:	Description:
PT-04D	Metals, Inorganics, TDS, Sulfide, Dis. Metals

Low-Flow Test Report:

Test Date / Time: 9/14/2023 11:41:16 AM

Project: September 2023 McManus CCR Event (2)

Operator Name: Meredith Duncan

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: 3.95 ft	Pump Type: QED Dedicated Tubing Type: PVC Pump Intake From TOC: 22.53 ft Estimated Total Volume Pumped: 4200 ml Flow Cell Volume: 90 ml Final Flow Rate: 210 ml/min Final Draw Down: 0.26 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789301
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Test Notes:

Prepurge 2L

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	+/- 10	
9/14/2023 11:41 AM	00:00	7.53 pH	25.78 °C	7,761.5 µS/cm	0.25 mg/L	0.87 NTU	-235.5 mV	4.02 ft	4.35 PSU	210.00 ml/min
9/14/2023 11:45 AM	04:00	7.52 pH	25.44 °C	7,976.5 µS/cm	0.15 mg/L	1.50 NTU	-229.7 mV	4.07 ft	4.48 PSU	210.00 ml/min
9/14/2023 11:49 AM	08:00	7.51 pH	25.23 °C	8,064.4 µS/cm	0.12 mg/L	1.97 NTU	-227.9 mV	4.10 ft	4.53 PSU	210.00 ml/min
9/14/2023 11:53 AM	12:00	7.51 pH	25.19 °C	8,126.5 µS/cm	0.10 mg/L	1.76 NTU	-226.5 mV	4.14 ft	4.57 PSU	210.00 ml/min
9/14/2023 11:57 AM	16:00	7.51 pH	25.07 °C	8,179.5 µS/cm	0.09 mg/L	1.57 NTU	-224.9 mV	4.18 ft	4.60 PSU	210.00 ml/min
9/14/2023 12:01 PM	20:00	7.51 pH	25.08 °C	8,226.9 µS/cm	0.08 mg/L	1.54 NTU	-223.8 mV	4.21 ft	4.63 PSU	210.00 ml/min

Samples

Sample ID:	Description:
DR-02	Metals, Inorganics, TDS, Sulfide, Dis Metals, As Spec.

Low-Flow Test Report:

Test Date / Time: 9/14/2023 1:57:30 PM

Project: September 2023 McManus CCR Event

Operator Name: Meredith Duncan

Location Name: MCM-06 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 17.23 ft Total Depth: 27.23 ft Initial Depth to Water: 7.65 ft	Pump Type: QED Dedicated Tubing Type: PVC Pump Intake From TOC: 22.23 ft Estimated Total Volume Pumped: 4560 ml Flow Cell Volume: 90 ml Final Flow Rate: 190 ml/min Final Draw Down: 0.22 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789301
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Test Notes:

Prepurge 2L

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	+/- 10	
9/14/2023 1:57 PM	00:00	6.91 pH	27.32 °C	4,872.0 µS/cm	0.44 mg/L	2.08 NTU	-178.5 mV	7.79 ft	2.65 PSU	190.00 ml/min
9/14/2023 2:01 PM	04:00	6.89 pH	26.51 °C	5,354.6 µS/cm	0.39 mg/L	2.23 NTU	-170.8 mV	7.82 ft	2.93 PSU	190.00 ml/min
9/14/2023 2:05 PM	08:00	7.20 pH	26.27 °C	6,903.3 µS/cm	0.41 mg/L	1.71 NTU	-194.7 mV	7.82 ft	3.84 PSU	190.00 ml/min
9/14/2023 2:09 PM	12:00	7.24 pH	26.10 °C	7,142.2 µS/cm	0.30 mg/L	1.09 NTU	-199.2 mV	7.85 ft	3.98 PSU	190.00 ml/min
9/14/2023 2:13 PM	16:00	7.27 pH	26.01 °C	7,241.6 µS/cm	0.15 mg/L	1.16 NTU	-202.9 mV	7.85 ft	4.04 PSU	190.00 ml/min
9/14/2023 2:17 PM	20:00	7.29 pH	25.78 °C	7,355.0 µS/cm	0.09 mg/L	0.69 NTU	-206.8 mV	7.87 ft	4.11 PSU	190.00 ml/min
9/14/2023 2:21 PM	24:00	7.30 pH	25.64 °C	7,404.8 µS/cm	0.06 mg/L	0.78 NTU	-208.8 mV	7.87 ft	4.14 PSU	190.00 ml/min

Samples

Sample ID:	Description:
MCM-06	Metals, Inorganics, TDS, Radium, Sulfide, Dis. Metals, As Spec.

Low-Flow Test Report:

Test Date / Time: 9/14/2023 2:07:00 PM

Project: September 2023 McManus CCR Event

Operator Name: William Laaker

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: 5.14 ft	Pump Type: GeoTech Peristaltic Tubing Type: LDPE Pump Intake From TOC: 19.38 ft Estimated Total Volume Pumped: 3200 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: 789310
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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 %	
9/14/2023 2:07 PM	00:00	6.75 pH	27.42 °C	6,040.4 µS/cm	0.24 mg/L	0.64 NTU	-239.1 mV	5.30 ft	3.33 PSU	200.00 ml/min
9/14/2023 2:11 PM	04:00	6.74 pH	27.18 °C	6,204.1 µS/cm	0.16 mg/L	0.50 NTU	-233.1 mV	5.31 ft	3.43 PSU	200.00 ml/min
9/14/2023 2:15 PM	08:00	6.74 pH	26.59 °C	6,216.4 µS/cm	0.13 mg/L	0.55 NTU	-229.7 mV	5.33 ft	3.43 PSU	200.00 ml/min
9/14/2023 2:19 PM	12:00	6.74 pH	26.31 °C	6,218.9 µS/cm	0.11 mg/L	0.63 NTU	-228.0 mV	5.35 ft	3.43 PSU	200.00 ml/min
9/14/2023 2:23 PM	16:00	6.77 pH	26.29 °C	6,178.3 µS/cm	0.09 mg/L	0.60 NTU	-228.3 mV	5.36 ft	3.41 PSU	200.00 ml/min

Samples

Sample ID:	Description:
PT-01	Metals, Inorganics, TDS, Sulfide, Dis. Metals

Low-Flow Test Report:

Test Date / Time: 9/14/2023 3:38:15 PM

Project: September 2023 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: 15.32 ft Total Depth: 30.32 ft Initial Depth to Water: 5.42 ft	Pump Type: QED Dedicated Tubing Type: PVC Pump Intake From TOC: 22.82 ft Estimated Total Volume Pumped: 5760 ml Flow Cell Volume: 90 ml Final Flow Rate: 240 ml/min Final Draw Down: 0.11 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789301
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Test Notes:

Prepurge 2L

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	+/- 10	
9/14/2023 3:38 PM	00:00	6.90 pH	27.06 °C	5,752.8 µS/cm	0.48 mg/L	1.30 NTU	-185.4 mV	5.45 ft	3.16 PSU	240.00 ml/min
9/14/2023 3:42 PM	04:00	6.98 pH	25.87 °C	5,973.1 µS/cm	0.20 mg/L	1.17 NTU	-193.7 mV	5.46 ft	3.29 PSU	240.00 ml/min
9/14/2023 3:46 PM	08:00	7.05 pH	25.69 °C	6,083.6 µS/cm	0.13 mg/L	1.02 NTU	-196.5 mV	5.46 ft	3.35 PSU	240.00 ml/min
9/14/2023 3:50 PM	12:00	7.08 pH	25.56 °C	6,168.3 µS/cm	0.11 mg/L	1.04 NTU	-196.1 mV	5.48 ft	3.40 PSU	240.00 ml/min
9/14/2023 3:54 PM	16:00	7.11 pH	25.60 °C	6,204.0 µS/cm	0.10 mg/L	1.14 NTU	-196.5 mV	5.50 ft	3.42 PSU	240.00 ml/min
9/14/2023 3:58 PM	20:00	7.14 pH	25.55 °C	6,236.4 µS/cm	0.09 mg/L	0.75 NTU	-196.8 mV	5.52 ft	3.44 PSU	240.00 ml/min
9/14/2023 4:02 PM	24:00	7.16 pH	25.46 °C	6,286.6 µS/cm	0.09 mg/L	0.73 NTU	-197.2 mV	5.53 ft	3.47 PSU	240.00 ml/min

Samples

Sample ID:	Description:
DR-01	Metals, Inorganics, TDS, Sulfide, Dis. Metals, As Spec.

Low-Flow Test Report:

Test Date / Time: 9/14/2023 3:47:44 PM

Project: September 2023 McManus CCR Event

Operator Name: William Laaker

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: 5.54 ft	Pump Type: GeoTech Peristaltic Tubing Type: LDPE Pump Intake From TOC: 19.38 ft Estimated Total Volume Pumped: 3200 ml Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 0.16 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789310
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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 %	
9/14/2023 3:47 PM	00:00	6.58 pH	26.92 °C	5,719.7 µS/cm	0.30 mg/L	0.42 NTU	-194.4 mV	5.68 ft	3.14 PSU	200.00 ml/min
9/14/2023 3:51 PM	04:00	6.59 pH	26.70 °C	5,807.4 µS/cm	0.19 mg/L	0.20 NTU	-187.3 mV	5.69 ft	3.19 PSU	200.00 ml/min
9/14/2023 3:55 PM	08:00	6.59 pH	26.72 °C	5,792.6 µS/cm	0.14 mg/L	0.32 NTU	-184.1 mV	5.70 ft	3.18 PSU	200.00 ml/min
9/14/2023 3:59 PM	12:00	6.59 pH	26.60 °C	5,794.4 µS/cm	0.11 mg/L	0.34 NTU	-181.5 mV	5.70 ft	3.18 PSU	200.00 ml/min
9/14/2023 4:03 PM	16:00	6.59 pH	26.68 °C	5,799.7 µS/cm	0.10 mg/L	0.27 NTU	-179.9 mV	5.70 ft	3.19 PSU	200.00 ml/min

Samples

Sample ID:	Description:
PT-02	Metals, Inorganics, TDS, Sulfide, Dis. Metals

Site Name: Plant McManus

Field Instrumentation Calibration Form

Date: 12/6/23

Calibrated By: Meredith Duncan

Field Conditions: 55° Sunny

Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	AquaTroll 400	893479
Turbidity Meter	LaMotte 2020	9453-4417

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24000044	05/2024	Atlanta Instrument Rental, Inc.
pH (SU)	4.00	24000044	05/2024	Atlanta Instrument Rental, Inc.
pH (SU)	7.00	22290139	04/2024	Atlanta Instrument Rental, Inc.
pH (SU)	10.00	22110130	04/2024	Atlanta Instrument Rental, Inc.
D.O. (%)	N/A	24000044	05/2024	Atlanta Instrument Rental, Inc.
ORP (mV)	228.0	24002258	06/2024	Atlanta Instrument Rental, Inc.

Calibration					
Time Start <u>0820</u>		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4400.2	9.86	± 10% of standard	EPA 2023
pH (SU)	4.00	4.03	9.90	± 0.1	GWMP
pH (SU)	7.00	7.08	9.76	± 0.1	GWMP
pH (SU)	10.00	10.16	9.33	± 0.1	GWMP
D.O. (%)	N/A	100.89	9.83	± 10%	NA
ORP (mV)	228.0	227.9	9.62	± 10	EPA 2023

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	0.00	0.04		
	1.00	1.04		
	10.00	10.70		

Calibration Check					
Time Start <u>1725</u>		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4420.3	14.63	± 10% of standard	EPA 2023
pH (SU)	4.00	4.07	14.39	± 0.1	GWMP
pH (SU)	7.00	7.07	13.77	± 0.1	GWMP
pH (SU)	10.00	10.09	13.27	± 0.1	GWMP

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	0.00	0.00		
	1.00	1.02		
	10.00	9.92		

Notes:

Site Name Plant McManus

Field Instrumentation Calibration Form

Date: 12/6/23

Calibrated By: William Lawler

Field Conditions: 62°/39° sunny

Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	AquaTroll 400	789361
Turbidity Meter	LaMotte 2020	9429-4417

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24000044	05/2024	Atlanta Instrument Rental, Inc.
pH (SU)	4.00	24000044	05/2024	Atlanta Instrument Rental, Inc.
pH (SU)	7.00	22290139	04/2024	Atlanta Instrument Rental, Inc.
pH (SU)	10.00	22110130	04/2024	Atlanta Instrument Rental, Inc.
D.O. (%)	N/A	24000044	05/2024	Atlanta Instrument Rental, Inc.
ORP (mV)	228.0	24002258	08/2024	Atlanta Instrument Rental, Inc.

Calibration					
Time Start	Time Finish				
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4522.7	9.04	± 10% of standard	EPA 2023
pH (SU)	4.00	4.05	9.08	± 0.1	GWMP
pH (SU)	7.00	7.15	9.18	± 0.1	GWMP
pH (SU)	10.00	10.24	9.23	± 0.1	GWMP
D.O. (%)	N/A	99.01	9.10	± 10%	NA
ORP (mV)	228.0	236.1	9.16	± 10	EPA 2023

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	0.00	0.01		
	1.00	1.21		
	10.00	10.37		

Calibration Check					
Time Start	Time Finish				
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4531.5	13.03	± 10% of standard	EPA 2023
pH (SU)	4.00	4.09	12.87	± 0.1	GWMP
pH (SU)	7.00	7.15	12.77	± 0.1	GWMP
pH (SU)	10.00	10.14	12.90	± 0.1	GWMP

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	0.00	0.00		
	1.00	1.12		
	10.00	10.23		

Notes

Low-Flow Test Report:

Test Date / Time: 12/6/2023 9:36:53 AM

Project: Plant McManus December 2023 Supplemental

Operator Name: Meredith Duncan

Location Name: DPZ-02 Well Diameter: 2 in Casing Type: PVC Screen Length: 5 ft Top of Screen: 33.46 ft Total Depth: 43.46 ft Initial Depth to Water: 7.95 ft	Pump Type: GeoTech Peristaltic Tubing Type: LDPE Pump Intake From TOC: 35.96 ft Estimated Total Volume Pumped: 3600 ml Flow Cell Volume: 90 ml Final Flow Rate: 180 ml/min Final Draw Down: 0.23 ft	Instrument Used: Aqua TROLL 400 Serial Number: 893479
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Test Notes:

Prepurge 2L

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	+/- 10	
12/6/2023 9:36 AM	00:00	7.62 pH	20.98 °C	17,604 µS/cm	0.21 mg/L	2.33 NTU	-98.9 mV	8.18 ft	11.70 PSU	180.00 ml/min
12/6/2023 9:40 AM	04:00	7.22 pH	21.47 °C	18,099 µS/cm	0.14 mg/L	0.98 NTU	-182.0 mV	8.18 ft	12.05 PSU	180.00 ml/min
12/6/2023 9:44 AM	08:00	7.22 pH	21.55 °C	18,178 µS/cm	0.12 mg/L	0.39 NTU	-189.5 mV	8.19 ft	12.10 PSU	180.00 ml/min
12/6/2023 9:48 AM	12:00	7.22 pH	21.65 °C	18,367 µS/cm	0.10 mg/L	0.32 NTU	-190.5 mV	8.20 ft	12.24 PSU	180.00 ml/min
12/6/2023 9:52 AM	16:00	7.22 pH	21.83 °C	18,373 µS/cm	0.09 mg/L	0.29 NTU	-190.3 mV	8.19 ft	12.24 PSU	180.00 ml/min
12/6/2023 9:56 AM	20:00	7.22 pH	22.40 °C	18,323 µS/cm	0.08 mg/L	0.27 NTU	-192.0 mV	8.18 ft	12.19 PSU	180.00 ml/min

Samples

Sample ID:	Description:
DPZ-02	Metals, Dis Metals, Sulfide, Sulfate, Nitrate, TDS
FD-01	Metals, Dis Metals, Sulfide, Sulfate, Nitrate, TDS

Low-Flow Test Report:

Test Date / Time: 12/6/2023 10:19:19 AM

Project: Plant McManus December 2023 Supplemental

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: 5.84 ft	Pump Type: GeoTech Peristaltic Tubing Type: LDPE Pump Intake From TOC: 20.36 ft Estimated Total Volume Pumped: 3200 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: 789301
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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 %	
12/6/2023 10:19 AM	00:00	7.00 pH	21.77 °C	6,732.6 µS/cm	0.11 mg/L	0.50 NTU	-204.5 mV	5.96 ft	3.73 PSU	200.00 ml/min
12/6/2023 10:23 AM	04:00	7.01 pH	21.97 °C	6,641.5 µS/cm	0.09 mg/L	0.34 NTU	-216.5 mV	5.96 ft	3.68 PSU	200.00 ml/min
12/6/2023 10:27 AM	08:00	7.02 pH	21.86 °C	6,682.2 µS/cm	0.08 mg/L	0.36 NTU	-232.0 mV	5.96 ft	3.70 PSU	200.00 ml/min
12/6/2023 10:31 AM	12:00	7.02 pH	22.09 °C	6,677.9 µS/cm	0.07 mg/L	0.27 NTU	-244.9 mV	5.97 ft	3.70 PSU	200.00 ml/min
12/6/2023 10:35 AM	16:00	7.03 pH	22.36 °C	6,648.3 µS/cm	0.06 mg/L	0.20 NTU	-255.8 mV	5.97 ft	3.68 PSU	200.00 ml/min

Samples

Sample ID:	Description:
PT-03	Metals, Dis. Metals, Sulfide, Sulfate, Nitrate, TDS

Low-Flow Test Report:

Test Date / Time: 12/6/2023 11:06:50 AM

Project: Plant McManus December 2023 Supplemental

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: 5.95 ft	Pump Type: GeoTech Peristaltic Tubing Type: LDPE Pump Intake From TOC: 35.85 ft Estimated Total Volume Pumped: 3400 ml Flow Cell Volume: 90 ml Final Flow Rate: 170 ml/min Final Draw Down: 0.37 ft	Instrument Used: Aqua TROLL 400 Serial Number: 893479
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Test Notes:

Prepurge 2L

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	+/- 10	
12/6/2023 11:06 AM	00:00	7.45 pH	21.59 °C	14,024 µS/cm	0.46 mg/L	0.67 NTU	-175.8 mV	6.15 ft	9.13 PSU	170.00 ml/min
12/6/2023 11:10 AM	04:00	7.39 pH	21.65 °C	14,138 µS/cm	0.25 mg/L	0.33 NTU	-182.8 mV	6.20 ft	9.21 PSU	170.00 ml/min
12/6/2023 11:14 AM	08:00	7.45 pH	21.62 °C	13,805 µS/cm	0.18 mg/L	0.34 NTU	-182.5 mV	6.33 ft	8.98 PSU	170.00 ml/min
12/6/2023 11:18 AM	12:00	7.46 pH	21.64 °C	13,556 µS/cm	0.15 mg/L	0.58 NTU	-183.0 mV	6.34 ft	8.80 PSU	170.00 ml/min
12/6/2023 11:22 AM	16:00	7.46 pH	21.49 °C	13,451 µS/cm	0.13 mg/L	0.41 NTU	-185.6 mV	6.33 ft	8.73 PSU	170.00 ml/min
12/6/2023 11:26 AM	20:00	7.42 pH	21.41 °C	13,305 µS/cm	0.11 mg/L	0.31 NTU	-182.9 mV	6.32 ft	8.63 PSU	170.00 ml/min

Samples

Sample ID:	Description:
PT-04D	Metals, Dis Metals, Sulfide, Sulfate, Nitrate, TDS

Low-Flow Test Report:

Test Date / Time: 12/6/2023 11:40:43 AM

Project: Plant McManus December 2023 Supplemental

Operator Name: William Laaker

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: 6.06 ft	Pump Type: GeoTech Peristaltic Tubing Type: LDPE Pump Intake From TOC: 19.38 ft Estimated Total Volume Pumped: 5280 ml Flow Cell Volume: 90 ml Final Flow Rate: 220 ml/min Final Draw Down: -0.08 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789301
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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 %	
12/6/2023 11:40 AM	00:00	6.55 pH	22.98 °C	5,463.2 µS/cm	0.11 mg/L	0.74 NTU	-150.4 mV	6.11 ft	2.99 PSU	220.00 ml/min
12/6/2023 11:44 AM	04:00	6.55 pH	23.10 °C	5,477.3 µS/cm	0.08 mg/L	0.46 NTU	-139.8 mV	6.10 ft	3.00 PSU	220.00 ml/min
12/6/2023 11:48 AM	08:00	6.90 pH	22.97 °C	6,147.7 µS/cm	0.07 mg/L	0.48 NTU	-174.7 mV	6.09 ft	3.39 PSU	220.00 ml/min
12/6/2023 11:52 AM	12:00	6.94 pH	22.98 °C	6,197.3 µS/cm	0.06 mg/L	0.44 NTU	-187.8 mV	6.05 ft	3.42 PSU	220.00 ml/min
12/6/2023 11:56 AM	16:00	6.95 pH	23.13 °C	6,184.8 µS/cm	0.06 mg/L	0.46 NTU	-190.3 mV	6.03 ft	3.41 PSU	220.00 ml/min
12/6/2023 12:00 PM	20:00	6.96 pH	23.14 °C	6,229.9 µS/cm	0.06 mg/L	0.38 NTU	-193.0 mV	6.00 ft	3.44 PSU	220.00 ml/min
12/6/2023 12:04 PM	24:00	6.96 pH	23.12 °C	6,223.4 µS/cm	0.05 mg/L	0.34 NTU	-193.8 mV	5.98 ft	3.43 PSU	220.00 ml/min

Samples

Sample ID:	Description:
PT-02	Metals, Dis. Metals, Sulfide, Sulfate, Nitrate, TDS

Low-Flow Test Report:

Test Date / Time: 12/6/2023 2:06:31 PM

Project: Plant McManus December 2023 Supplemental

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: 4.85 ft	Pump Type: GeoTech Peristaltic Tubing Type: LDPE Pump Intake From TOC: 19.38 ft Estimated Total Volume Pumped: 3600 ml Flow Cell Volume: 90 ml Final Flow Rate: 180 ml/min Final Draw Down: -0.12 ft	Instrument Used: Aqua TROLL 400 Serial Number: 893479
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Test Notes:

Prepurge 1L

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	+/- 10	
12/6/2023 2:06 PM	00:00	7.34 pH	22.98 °C	6,333.3 µS/cm	0.26 mg/L	2.10 NTU	-233.1 mV	4.90 ft	3.87 PSU	180.00 ml/min
12/6/2023 2:10 PM	04:00	7.31 pH	22.54 °C	6,382.3 µS/cm	0.19 mg/L	0.99 NTU	-222.7 mV	4.87 ft	3.91 PSU	180.00 ml/min
12/6/2023 2:14 PM	08:00	7.30 pH	22.45 °C	6,423.0 µS/cm	0.15 mg/L	0.77 NTU	-214.5 mV	4.84 ft	3.93 PSU	180.00 ml/min
12/6/2023 2:18 PM	12:00	7.27 pH	22.44 °C	6,432.5 µS/cm	0.13 mg/L	0.74 NTU	-210.3 mV	4.80 ft	3.94 PSU	180.00 ml/min
12/6/2023 2:22 PM	16:00	7.26 pH	22.46 °C	6,438.4 µS/cm	0.12 mg/L	0.88 NTU	-208.6 mV	4.77 ft	3.94 PSU	180.00 ml/min
12/6/2023 2:26 PM	20:00	7.28 pH	22.30 °C	6,422.3 µS/cm	0.10 mg/L	0.72 NTU	-206.3 mV	4.73 ft	3.93 PSU	180.00 ml/min

Samples

Sample ID:	Description:
PT-01	Metals, Dis Metals, Sulfide, Sulfate, Nitrate, TDS

Low-Flow Test Report:

Test Date / Time: 12/6/2023 2:27:41 PM

Project: Plant McManus December 2023 Supplemental

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: 4.7 ft	Pump Type: GeoTech Peristaltic Tubing Type: LDPE Pump Intake From TOC: 22.53 ft Estimated Total Volume Pumped: 3200 ml Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: -0.17 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789301
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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 %	
12/6/2023 2:27 PM	00:00	7.48 pH	22.62 °C	7,535.0 µS/cm	0.10 mg/L	0.42 NTU	-211.6 mV	4.61 ft	4.21 PSU	200.00 ml/min
12/6/2023 2:31 PM	04:00	7.45 pH	22.62 °C	7,717.6 µS/cm	0.08 mg/L	0.44 NTU	-201.3 mV	4.60 ft	4.32 PSU	200.00 ml/min
12/6/2023 2:35 PM	08:00	7.45 pH	22.62 °C	7,777.4 µS/cm	0.07 mg/L	0.43 NTU	-195.3 mV	4.58 ft	4.36 PSU	200.00 ml/min
12/6/2023 2:39 PM	12:00	7.45 pH	22.63 °C	7,861.8 µS/cm	0.07 mg/L	0.58 NTU	-190.3 mV	4.55 ft	4.41 PSU	200.00 ml/min
12/6/2023 2:43 PM	16:00	7.45 pH	22.55 °C	7,905.1 µS/cm	0.07 mg/L	0.41 NTU	-186.0 mV	4.53 ft	4.44 PSU	200.00 ml/min

Samples

Sample ID:	Description:
DR-02	Metals, Dis. Metals, Sulfide, Sulfate, Nitrate, TDS

Low-Flow Test Report:

Test Date / Time: 12/6/2023 3:08:29 PM

Project: Plant McManus December 2023 Supplemental

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: 4.5 ft	Pump Type: GeoTech Peristaltic Tubing Type: LDPE Pump Intake From TOC: 23.08 ft Estimated Total Volume Pumped: 3600 ml Flow Cell Volume: 90 ml Final Flow Rate: 180 ml/min Final Draw Down: -0.1 ft	Instrument Used: Aqua TROLL 400 Serial Number: 893479
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Test Notes:

Prepurge 2L

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	+/- 10	
12/6/2023 3:08 PM	00:00	7.32 pH	22.70 °C	5,924.4 µS/cm	0.27 mg/L	0.87 NTU	-238.4 mV	4.49 ft	3.61 PSU	180.00 ml/min
12/6/2023 3:12 PM	04:00	7.36 pH	22.86 °C	6,441.6 µS/cm	0.20 mg/L	0.33 NTU	-229.2 mV	4.46 ft	3.94 PSU	180.00 ml/min
12/6/2023 3:16 PM	08:00	7.40 pH	22.81 °C	6,470.1 µS/cm	0.16 mg/L	0.37 NTU	-228.9 mV	4.44 ft	3.96 PSU	180.00 ml/min
12/6/2023 3:20 PM	12:00	7.45 pH	22.73 °C	6,511.8 µS/cm	0.13 mg/L	0.55 NTU	-229.7 mV	4.43 ft	3.99 PSU	180.00 ml/min
12/6/2023 3:24 PM	16:00	7.49 pH	22.77 °C	6,558.5 µS/cm	0.12 mg/L	0.24 NTU	-230.1 mV	4.41 ft	4.02 PSU	180.00 ml/min
12/6/2023 3:28 PM	20:00	7.51 pH	22.74 °C	6,594.6 µS/cm	0.10 mg/L	0.37 NTU	-228.9 mV	4.40 ft	4.04 PSU	180.00 ml/min

Samples

Sample ID:	Description:
DR-01	Metals, Dis Metals, Sulfide, Sulfate, Nitrate, TDS

Low-Flow Test Report:

Test Date / Time: 12/6/2023 3:59:21 PM

Project: Plant McManus December 2023 Supplemental

Operator Name: Meredith Duncan

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: 7.01 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: 240 ml/min Final Draw Down: 0 ft	Instrument Used: Aqua TROLL 400 Serial Number: 893479
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Test Notes:

Prepurge 10L

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	+/- 10	
12/6/2023 3:59 PM	00:00	7.45 pH	23.01 °C	6,877.5 µS/cm	0.08 mg/L	0.76 NTU	-234.3 mV	6.99 ft	4.23 PSU	240.00 ml/min
12/6/2023 4:03 PM	04:00	7.44 pH	22.98 °C	7,363.9 µS/cm	0.06 mg/L	0.64 NTU	-221.2 mV	7.01 ft	4.55 PSU	240.00 ml/min
12/6/2023 4:07 PM	08:00	7.44 pH	23.00 °C	7,383.1 µS/cm	0.05 mg/L	0.73 NTU	-218.3 mV	7.01 ft	4.56 PSU	240.00 ml/min
12/6/2023 4:11 PM	12:00	7.44 pH	23.02 °C	7,375.2 µS/cm	0.05 mg/L	0.60 NTU	-219.1 mV	7.01 ft	4.56 PSU	240.00 ml/min
12/6/2023 4:15 PM	16:00	7.44 pH	22.94 °C	7,379.6 µS/cm	0.05 mg/L	0.39 NTU	-215.8 mV	7.01 ft	4.56 PSU	240.00 ml/min
12/6/2023 4:19 PM	20:00	7.44 pH	22.93 °C	7,381.8 µS/cm	0.05 mg/L	0.26 NTU	-214.5 mV	7.01 ft	4.56 PSU	240.00 ml/min

Samples

Sample ID:	Description:
MCM-06	Metals, Dis Metals, Inorganics, Alkalinity, Sulfate, Nitrate, TDS

Low-Flow Test Report:

Test Date / Time: 12/6/2023 4:19:12 PM

Project: Plant McManus December 2023 Supplemental

Operator Name: William Laaker

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: 7.46 ft	Pump Type: GeoTech Peristaltic Tubing Type: LDPE Pump Intake From TOC: 18.05 ft Estimated Total Volume Pumped: 3200 ml Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 0.7 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789301
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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 %	
12/6/2023 4:19 PM	00:00	3.66 pH	20.61 °C	17,738 µS/cm	0.15 mg/L	0.18 NTU	82.7 mV	8.07 ft	10.59 PSU	200.00 ml/min
12/6/2023 4:23 PM	04:00	3.66 pH	20.67 °C	17,753 µS/cm	0.13 mg/L	0.14 NTU	74.1 mV	8.11 ft	10.60 PSU	200.00 ml/min
12/6/2023 4:27 PM	08:00	3.67 pH	20.75 °C	17,586 µS/cm	0.12 mg/L	0.16 NTU	71.2 mV	8.13 ft	10.49 PSU	200.00 ml/min
12/6/2023 4:31 PM	12:00	3.66 pH	20.77 °C	17,460 µS/cm	0.11 mg/L	0.23 NTU	69.3 mV	8.15 ft	10.41 PSU	200.00 ml/min
12/6/2023 4:35 PM	16:00	3.66 pH	20.79 °C	17,317 µS/cm	0.11 mg/L	0.05 NTU	70.5 mV	8.16 ft	10.32 PSU	200.00 ml/min

Samples

Sample ID:	Description:
MCM-20	Metals, Dis. Metals, Sulfide, Sulfate, Nitrate, TDS

APPENDIX C

SURFACE WATER LABORATORY ANALYTICAL RESULTS AND FIELD SAMPLING REPORTS

September 29, 2023

Kristen Jurinko
Georgia Power Company
241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308

Re: Plant McManus CCR Groundwater Compliance SW
Work Order: 637334

Dear Kristen Jurinko:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on September 15, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt. The laboratory received the following sample(s):

<u>Laboratory ID</u>	<u>Client ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Recieved</u>
637334001	MCM-T2-1HT	Surface Water	12/09/23 08:46	15/09/23 10:30
637334002	MCM-T2-2HT	Surface Water	12/09/23 08:59	15/09/23 10:30
637334003	MCM-T2-2HTS	Surface Water	12/09/23 08:54	15/09/23 10:30
637334004	MCM-T2-3HT	Surface Water	12/09/23 09:18	15/09/23 10:30
637334005	MCM-T2-3HTS	Surface Water	12/09/23 09:10	15/09/23 10:30
637334006	MCM-T2-4HT	Surface Water	12/09/23 09:43	15/09/23 10:30
637334007	MCM-T2-4HTS	Surface Water	12/09/23 09:32	15/09/23 10:30
637334008	MCM-T2-4LT	Surface Water	12/09/23 14:28	15/09/23 10:30
637334009	MCM-BG-1LT	Surface Water	12/09/23 13:59	15/09/23 10:30
637334010	MCM-BG-2HT	Surface Water	12/09/23 08:25	15/09/23 10:30
637334011	MCM-CSURF-FD-01	Surface Water	12/09/23 12:00	15/09/23 10:30
637334012	MCM-CSURF-FB-01	Surface Water	12/09/23 15:52	15/09/23 10:30
637334014	MCM-CSURF-EB-01	Surface Water	12/09/23 15:50	15/09/23 10:30

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory.



Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Prep Methods and Prep Dates

<u>Method</u>	<u>Run Date ID</u>
SW846 3005A	18-SEP-2023

Analysis Methods and Analysis Dates

<u>Method</u>	<u>Run Date ID</u>
EPA 300.0	16-SEP-2023
EPA 300.0	17-SEP-2023
EPA 300.0	18-SEP-2023
EPA 300.0	19-SEP-2023
SM 2320B	20-SEP-2023
SM 2540C	19-SEP-2023
SW846 3005A/6020B	28-SEP-2023
SW846 3005A/6020B	29-SEP-2023

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

A handwritten signature in black ink that reads "Erin J. Trent". The signature is written in a cursive style with a large, stylized "E" and "T".

Erin Trent
Project Manager

Purchase Order: GPC82177-0007
Enclosures

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 637334 GEL Work Order: 637334

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- N Metals--The Matrix spike sample recovery is not within specified control limits
- N/A RPD or %Recovery limits do not apply.
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 29, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T2-1HT Project: GPCC00105
Sample ID: 637334001 Client ID: GPCC001
Matrix: WS
Collect Date: 12-SEP-23 08:46
Receive Date: 15-SEP-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		12600	268	800	mg/L		4000	LXA2	09/18/23	2202	2493502	1
Fluoride	U	ND	1.32	4.00	mg/L		40	LXA2	09/18/23	2131	2493502	2
Sulfate		2880	266	800	mg/L		2000	LXA2	09/16/23	2353	2493502	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Sodium		8140	80.0	250	mg/L	1.00	1000	PRB	09/29/23	1353	2493509	4
Arsenic	J	0.00800	0.00200	0.0100	mg/L	1.00	1	PRB	09/28/23	2256	2493509	5
Boron		3.20	0.104	0.300	mg/L	1.00	20	PRB	09/29/23	1438	2493509	6
Calcium		319	1.60	4.00	mg/L	1.00	20					
Magnesium		935	0.200	0.600	mg/L	1.00	20					
Potassium		295	1.60	6.00	mg/L	1.00	20					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		24100	23.8	100	mg/L			CH6	09/19/23	1456	2494592	7
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		117	0.725	2.00	mg/L			HH2	09/20/23	1135	2494333	8
Bicarbonate alkalinity (CaCO3)		117	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JM13	09/18/23	1520	2493507

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SM 2540C	
8	SM 2320B	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 29, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID:	MCM-T2-1HT	Project:	GPCC00105
Sample ID:	637334001	Client ID:	GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: September 29, 2023

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T2-2HT	Project: GPCC00105
Sample ID: 637334002	Client ID: GPCC001
Matrix: WS	
Collect Date: 12-SEP-23 08:59	
Receive Date: 15-SEP-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		3320	266	800	mg/L		2000	LXA2	09/17/23	0024	2493502	1
Chloride		12200	268	800	mg/L		4000	LXA2	09/18/23	2304	2493502	2
Fluoride	U	ND	1.32	4.00	mg/L		40	LXA2	09/18/23	2233	2493502	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		3.11	0.104	0.300	mg/L	1.00	20	PRB	09/29/23	1446	2493509	4
Calcium		309	1.60	4.00	mg/L	1.00	20					
Magnesium		911	0.200	0.600	mg/L	1.00	20					
Potassium		287	1.60	6.00	mg/L	1.00	20					
Arsenic	J	0.00834	0.00200	0.0100	mg/L	1.00	1	PRB	09/28/23	2314	2493509	5
Sodium		8100	80.0	250	mg/L	1.00	1000	PRB	09/29/23	1406	2493509	6
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		27200	23.8	100	mg/L			CH6	09/19/23	1456	2494592	7
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		118	0.725	2.00	mg/L			HH2	09/20/23	1138	2494333	8
Bicarbonate alkalinity (CaCO3)		118	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JM13	09/18/23	1520	2493507

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SM 2540C	
8	SM 2320B	

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Certificate of Analysis

Report Date: September 29, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T2-2HT
Sample ID: 637334002

Project: GPCC00105
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T2-2HTS	Project: GPCC00105
Sample ID: 637334003	Client ID: GPCC001
Matrix: WS	
Collect Date: 12-SEP-23 08:54	
Receive Date: 15-SEP-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	J	2.41	1.32	4.00	mg/L		40	LXA2	09/18/23	2335	2493502	1
Chloride		17500	134	400	mg/L		2000	LXA2	09/17/23	0055	2493502	2
Sulfate		3070	266	800	mg/L		2000					
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		3.20	0.104	0.300	mg/L	1.00	20	PRB	09/29/23	1448	2493509	3
Calcium		314	1.60	4.00	mg/L	1.00	20					
Magnesium		925	0.200	0.600	mg/L	1.00	20					
Potassium		291	1.60	6.00	mg/L	1.00	20					
Sodium		8180	80.0	250	mg/L	1.00	1000	PRB	09/29/23	1408	2493509	4
Arsenic	J	0.00731	0.00200	0.0100	mg/L	1.00	1	PRB	09/28/23	2318	2493509	5
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		25400	23.8	100	mg/L			CH6	09/19/23	1456	2494592	6
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		118	0.725	2.00	mg/L			HH2	09/20/23	1147	2494333	7
Bicarbonate alkalinity (CaCO3)		118	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JM13	09/18/23	1520	2493507

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SM 2540C	
7	SM 2320B	

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Certificate of Analysis

Report Date: September 29, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID:	MCM-T2-2HTS	Project:	GPCC00105
Sample ID:	637334003	Client ID:	GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: September 29, 2023

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T2-3HT	Project: GPCC00105
Sample ID: 637334004	Client ID: GPCC001
Matrix: WS	
Collect Date: 12-SEP-23 09:18	
Receive Date: 15-SEP-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		13800	134	400	mg/L		2000	LXA2	09/17/23	0126	2493502	1
Sulfate		2620	266	800	mg/L		2000					
Fluoride	U	ND	1.32	4.00	mg/L		40	LXA2	09/19/23	0006	2493502	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Sodium		8490	80.0	250	mg/L	1.00	1000	PRB	09/29/23	1410	2493509	3
Boron		3.26	0.104	0.300	mg/L	1.00	20	PRB	09/29/23	1454	2493509	4
Calcium		324	1.60	4.00	mg/L	1.00	20					
Magnesium		954	0.200	0.600	mg/L	1.00	20					
Potassium		301	1.60	6.00	mg/L	1.00	20					
Arsenic	J	0.00790	0.00200	0.0100	mg/L	1.00	1	PRB	09/28/23	2321	2493509	5
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		25400	23.8	100	mg/L			CH6	09/19/23	1456	2494592	6
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		117	0.725	2.00	mg/L			HH2	09/20/23	1159	2494333	7
Bicarbonate alkalinity (CaCO3)		117	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JM13	09/18/23	1520	2493507

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SM 2540C	
7	SM 2320B	

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Report Date: September 29, 2023

Company : Georgia Power Company
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 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T2-3HT	Project: GPCC00105
Sample ID: 637334004	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Company : Georgia Power Company
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 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T2-3HTS	Project: GPCC00105
Sample ID: 637334005	Client ID: GPCC001
Matrix: WS	
Collect Date: 12-SEP-23 09:10	
Receive Date: 15-SEP-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	1.32	4.00	mg/L		40	LXA2	09/19/23	0240	2493502	1
Chloride		13100	134	400	mg/L		2000	LXA2	09/17/23	0400	2493502	2
Sulfate		2320	266	800	mg/L		2000					
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic	J	0.00804	0.00200	0.0100	mg/L	1.00	1	PRB	09/28/23	2332	2493509	3
Sodium		8200	80.0	250	mg/L	1.00	1000	PRB	09/29/23	1416	2493509	4
Boron		3.21	0.104	0.300	mg/L	1.00	20	PRB	09/29/23	1456	2493509	5
Calcium		312	1.60	4.00	mg/L	1.00	20					
Magnesium		917	0.200	0.600	mg/L	1.00	20					
Potassium		289	1.60	6.00	mg/L	1.00	20					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		26500	23.8	100	mg/L			CH6	09/19/23	1456	2494592	6
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		117	0.725	2.00	mg/L			HH2	09/20/23	1201	2494333	7
Bicarbonate alkalinity (CaCO3)		117	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JM13	09/18/23	1520	2493507

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SM 2540C	
7	SM 2320B	

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Certificate of Analysis

Report Date: September 29, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID:	MCM-T2-3HTS	Project:	GPCC00105
Sample ID:	637334005	Client ID:	GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T2-4HT	Project: GPCC00105
Sample ID: 637334006	Client ID: GPCC001
Matrix: WS	
Collect Date: 12-SEP-23 09:43	
Receive Date: 15-SEP-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		1670	133	400	mg/L		1000	LXA2	09/17/23	0431	2493502	1
Chloride		13600	134	400	mg/L		2000	LXA2	09/19/23	0342	2493502	2
Fluoride	U	ND	1.32	4.00	mg/L		40	LXA2	09/19/23	0311	2493502	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		3.28	0.104	0.300	mg/L	1.00	20	PRB	09/29/23	1458	2493509	4
Calcium		325	1.60	4.00	mg/L	1.00	20					
Magnesium		950	0.200	0.600	mg/L	1.00	20					
Potassium		299	1.60	6.00	mg/L	1.00	20					
Sodium		8480	80.0	250	mg/L	1.00	1000	PRB	09/29/23	1418	2493509	5
Arsenic	J	0.00821	0.00200	0.0100	mg/L	1.00	1	PRB	09/28/23	2336	2493509	6
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		25800	23.8	100	mg/L			CH6	09/19/23	1456	2494592	7
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		117	0.725	2.00	mg/L			HH2	09/20/23	1203	2494333	8
Bicarbonate alkalinity (CaCO3)		117	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JM13	09/18/23	1520	2493507

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SM 2540C	
8	SM 2320B	

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Company : Georgia Power Company
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Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID:	MCM-T2-4HT	Project:	GPCC00105
Sample ID:	637334006	Client ID:	GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE
 Bin 10160
 Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T2-4HTS	Project: GPCC00105
Sample ID: 637334007	Client ID: GPCC001
Matrix: WS	
Collect Date: 12-SEP-23 09:32	
Receive Date: 15-SEP-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	J	1.34	0.825	4.00	mg/L		25	JLD1	09/16/23	0050	2493582	1
Chloride		13000	134	400	mg/L		2000	JLD1	09/16/23	1622	2493582	2
Sulfate		2190	266	800	mg/L		2000					
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic	J	0.00802	0.00200	0.0100	mg/L	1.00	1	PRB	09/28/23	2340	2493509	3
Sodium		8300	80.0	250	mg/L	1.00	1000	PRB	09/29/23	1420	2493509	4
Boron		3.34	0.104	0.300	mg/L	1.00	20	PRB	09/29/23	1500	2493509	5
Calcium		323	1.60	4.00	mg/L	1.00	20					
Magnesium		942	0.200	0.600	mg/L	1.00	20					
Potassium		298	1.60	6.00	mg/L	1.00	20					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		28500	23.8	100	mg/L			CH6	09/19/23	1456	2494592	6
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		116	0.725	2.00	mg/L			HH2	09/20/23	1206	2494333	7
Bicarbonate alkalinity (CaCO3)		116	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JM13	09/18/23	1520	2493507

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SM 2540C	
7	SM 2320B	

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Company : Georgia Power Company
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Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID:	MCM-T2-4HTS	Project:	GPCC00105
Sample ID:	637334007	Client ID:	GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T2-4LT Project: GPCC00105
Sample ID: 637334008 Client ID: GPCC001
Matrix: WS
Collect Date: 12-SEP-23 14:28
Receive Date: 15-SEP-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		10900	134	400	mg/L		2000	JLD1	09/16/23	1757	2493582	1
Sulfate		1730	266	800	mg/L		2000					
Fluoride	U	ND	1.32	4.00	mg/L		40	JLD1	09/16/23	0226	2493582	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic	J	0.00797	0.00200	0.0100	mg/L	1.00	1	PRB	09/28/23	2343	2493509	3
Boron		2.82	0.104	0.300	mg/L	1.00	20	PRB	09/29/23	1502	2493509	4
Calcium		273	1.60	4.00	mg/L	1.00	20					
Magnesium		787	0.200	0.600	mg/L	1.00	20					
Potassium		248	1.60	6.00	mg/L	1.00	20					
Sodium		6900	80.0	250	mg/L	1.00	1000	PRB	09/29/23	1422	2493509	5
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		23100	23.8	100	mg/L			CH6	09/19/23	1456	2494592	6
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		112	0.725	2.00	mg/L			HH2	09/20/23	1207	2494333	7
Bicarbonate alkalinity (CaCO3)		112	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JM13	09/18/23	1520	2493507

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SM 2540C	
7	SM 2320B	

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 29, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T2-4LT Project: GPCC00105
Sample ID: 637334008 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: September 29, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-BG-1LT Project: GPCC00105
Sample ID: 637334009 Client ID: GPCC001
Matrix: WS
Collect Date: 12-SEP-23 13:59
Receive Date: 15-SEP-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	1.32	4.00	mg/L		40	JLD1	09/16/23	0257	2493582	1
Chloride		13200	134	400	mg/L		2000	JLD1	09/16/23	1829	2493582	2
Sulfate		2130	266	800	mg/L		2000					
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Sodium		8530	80.0	250	mg/L	1.00	1000	PRB	09/29/23	1424	2493509	3
Arsenic	J	0.00894	0.00200	0.0100	mg/L	1.00	1	PRB	09/28/23	2347	2493509	4
Boron		3.24	0.104	0.300	mg/L	1.00	20	PRB	09/29/23	1504	2493509	5
Calcium		316	1.60	4.00	mg/L	1.00	20					
Magnesium		932	0.200	0.600	mg/L	1.00	20					
Potassium		291	1.60	6.00	mg/L	1.00	20					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		27100	23.8	100	mg/L			CH6	09/19/23	1456	2494592	6
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		117	0.725	2.00	mg/L			HH2	09/20/23	1210	2494333	7
Bicarbonate alkalinity (CaCO3)		117	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JM13	09/18/23	1520	2493507

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SM 2540C	
7	SM 2320B	

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Certificate of Analysis

Report Date: September 29, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID:	MCM-BG-1LT	Project:	GPCC00105
Sample ID:	637334009	Client ID:	GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: September 29, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-BG-2HT Project: GPCC00105
Sample ID: 637334010 Client ID: GPCC001
Matrix: WS
Collect Date: 12-SEP-23 08:25
Receive Date: 15-SEP-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	1.32	4.00	mg/L		40	JLD1	09/16/23	0433	2493582	1
Chloride		14200	268	800	mg/L		4000	JLD1	09/16/23	1901	2493582	2
Sulfate		2800	532	1600	mg/L		4000					
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic	J	0.00763	0.00200	0.0100	mg/L	1.00	1	PRB	09/28/23	2133	2493509	3
Sodium		9500	80.0	250	mg/L	1.00	1000	PRB	09/29/23	1426	2493509	4
Boron		3.64	0.208	0.600	mg/L	1.00	40	PRB	09/29/23	1511	2493509	5
Calcium		348	3.20	8.00	mg/L	1.00	40					
Magnesium		1010	0.400	1.20	mg/L	1.00	40					
Potassium		327	3.20	12.0	mg/L	1.00	40					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		27400	23.8	100	mg/L			CH6	09/19/23	1456	2494592	6
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		121	0.725	2.00	mg/L			HH2	09/20/23	1212	2494333	7
Bicarbonate alkalinity (CaCO3)		121	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JM13	09/18/23	1520	2493507

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SM 2540C	
7	SM 2320B	

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Certificate of Analysis

Report Date: September 29, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID:	MCM-BG-2HT	Project:	GPCC00105
Sample ID:	637334010	Client ID:	GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: September 29, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-CSURF-FD-01 Project: GPCC00105
Sample ID: 637334011 Client ID: GPCC001
Matrix: WS
Collect Date: 12-SEP-23 12:00
Receive Date: 15-SEP-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	1.65	5.00	mg/L		50	JLD1	09/16/23	1933	2493582	1
Chloride		12600	268	800	mg/L		4000	JLD1	09/16/23	2005	2493582	2
Sulfate		2340	532	1600	mg/L		4000					
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		3.13	0.104	0.300	mg/L	1.00	20	PRB	09/29/23	1508	2493509	3
Calcium		309	1.60	4.00	mg/L	1.00	20					
Magnesium		902	0.200	0.600	mg/L	1.00	20					
Potassium		282	1.60	6.00	mg/L	1.00	20					
Arsenic	J	0.00843	0.00200	0.0100	mg/L	1.00	1	PRB	09/28/23	2354	2493509	4
Sodium		8450	80.0	250	mg/L	1.00	1000	PRB	09/29/23	1428	2493509	5
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		27200	23.8	100	mg/L			CH6	09/19/23	1456	2494592	6
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		117	0.725	2.00	mg/L			HH2	09/20/23	1214	2494333	7
Bicarbonate alkalinity (CaCO3)		117	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JM13	09/18/23	1520	2493507

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SM 2540C	
7	SM 2320B	

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Certificate of Analysis

Report Date: September 29, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-CSURF-FD-01 Project: GPCC00105
Sample ID: 637334011 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: September 29, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-CSURF-FB-01 Project: GPCC00105
Sample ID: 637334012 Client ID: GPCC001
Matrix: WQ
Collect Date: 12-SEP-23 15:52
Receive Date: 15-SEP-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		0.743	0.0670	0.200	mg/L		1	JLD1	09/16/23	0537	2493582	1
Fluoride	U	ND	0.0330	4.00	mg/L		1					
Sulfate	J	0.209	0.133	0.400	mg/L		1					
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic	J	0.00412	0.00200	0.0100	mg/L	1.00	1	PRB	09/28/23	2358	2493509	2
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1	PRB	09/29/23	1430	2493509	3
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	09/19/23	1456	2494592	4
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3	U	ND	0.725	2.00	mg/L			HH2	09/20/23	1216	2494333	5
Bicarbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JM13	09/18/23	1520	2493507

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 3005A/6020B	
3	SW846 3005A/6020B	
4	SM 2540C	
5	SM 2320B	

Notes:

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: September 29, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID:	MCM-CSURF-FB-01	Project:	GPCC00105
Sample ID:	637334012	Client ID:	GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: September 29, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-CSURF-EB-01 Project: GPCC00105
Sample ID: 637334014 Client ID: GPCC001
Matrix: WQ
Collect Date: 12-SEP-23 15:50
Receive Date: 15-SEP-23
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		0.278	0.0670	0.200	mg/L		1	JLD1	09/16/23	0609	2493582	1
Fluoride	U	ND	0.0330	4.00	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic	J	0.00411	0.00200	0.0100	mg/L	1.00	1	PRB	09/29/23	0001	2493509	2
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1	PRB	09/29/23	1432	2493509	3
Calcium	J	0.106	0.0800	0.200	mg/L	1.00	1					
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1					
Potassium	J	0.0927	0.0800	0.300	mg/L	1.00	1					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	09/19/23	1456	2494592	4
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3	U	ND	0.725	2.00	mg/L			HH2	09/20/23	1217	2494333	5
Bicarbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JM13	09/18/23	1520	2493507

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 3005A/6020B	
3	SW846 3005A/6020B	
4	SM 2540C	
5	SM 2320B	

Notes:

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 29, 2023

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID:	MCM-CSURF-EB-01	Project:	GPCC00105
Sample ID:	637334014	Client ID:	GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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QC Summary

Report Date: September 29, 2023

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Georgia Power Company
241 Ralph McGill Blvd NE
Bin 10160
Atlanta, Georgia

Contact: Kristen Jurinko

Workorder: 637334

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2493502										
QC1205518822	637268022	DUP									
Chloride		10.4		10.4	mg/L	0.615		(0%-20%)	LXA2	09/16/23	17:12
Fluoride	J	0.0941	J	0.0917	mg/L	2.58	^	(+/-4.00)		09/18/23	14:19
Sulfate		27.1		27.3	mg/L	0.823		(0%-20%)		09/16/23	17:12
QC1205518824	637334004	DUP									
Chloride		13800		13800	mg/L	0.186		(0%-20%)		09/17/23	01:57
Fluoride	U	ND	J	2.40	mg/L	200				09/19/23	00:37
Sulfate		2620		2680	mg/L	2.05	^	(+/-800)		09/17/23	01:57
QC1205518821	LCS										
Chloride	5.00			4.68	mg/L			93.5 (90%-110%)		09/16/23	15:39
Fluoride	2.50			2.43	mg/L			97.4 (90%-110%)			
Sulfate	10.0			9.55	mg/L			95.5 (90%-110%)			
QC1205518820	MB										
Chloride			U	ND	mg/L					09/16/23	15:09
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						

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2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder: 637334

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2493502										
QC1205518823	637268022	PS									
Chloride	5.00	1.04		5.82	mg/L		95.6	(90%-110%)	LXA2	09/16/23	17:43
Fluoride	2.50	J	0.0941	2.48	mg/L		95.3	(90%-110%)		09/18/23	14:50
Sulfate	10.0		2.71	12.0	mg/L		92.5	(90%-110%)		09/16/23	17:43
QC1205518825	637334004	PS									
Chloride	5.00	6.89		12.4	mg/L		110	(90%-110%)		09/17/23	03:29
Fluoride	2.50	U	ND	2.38	mg/L		95.4	(90%-110%)		09/19/23	02:09
Sulfate	10.0		1.31	10.4	mg/L		90.6	(90%-110%)		09/17/23	03:29
Batch	2493582										
QC1205518918	637334007	DUP									
Chloride		13000		13000	mg/L	0.236		(0%-20%)	JLD1	09/16/23	16:54
Fluoride		J	1.34	J	1.32	mg/L	1.51	^	(+/-4.00)	09/16/23	01:22
Sulfate			2190	2150	mg/L	1.73	^	(+/-800)		09/16/23	16:54
QC1205518915	LCS										
Chloride	5.00			4.69	mg/L		93.8	(90%-110%)		09/18/23	10:50
Fluoride	2.50			2.44	mg/L		97.7	(90%-110%)			
Sulfate	10.0			9.67	mg/L		96.7	(90%-110%)			
QC1205518914	MB										
Chloride			U	ND	mg/L					09/16/23	15:50
Fluoride			U	ND	mg/L						

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QC Summary

Workorder: 637334

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2493582										
Sulfate			U	ND	mg/L				JLD1	09/16/23	15:50
QC1205518919 637334007 PS											
Chloride	5.00	6.50		11.8	mg/L		106	(90%-110%)		09/16/23	17:25
Fluoride	2.50	J 0.0535		2.35	mg/L		92	(90%-110%)		09/16/23	01:54
Sulfate	10.0	1.10		10.4	mg/L		92.6	(90%-110%)		09/16/23	17:25
Metals Analysis - ICPMS											
Batch	2493509										
QC1205518831 LCS											
Arsenic	0.0500			0.0461	mg/L		92.2	(80%-120%)	PRB	09/28/23	22:53
Boron	0.100			0.102	mg/L		102	(80%-120%)		09/29/23	13:55
Calcium	2.00			2.05	mg/L		102	(80%-120%)			
Magnesium	2.00			1.92	mg/L		96	(80%-120%)			
Potassium	2.00			2.03	mg/L		101	(80%-120%)			
Sodium	2.00			1.99	mg/L		99.7	(80%-120%)			
QC1205518830 MB											
Arsenic			U	ND	mg/L					09/28/23	22:49
Boron			U	ND	mg/L					09/29/23	13:57
Calcium			U	ND	mg/L						

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QC Summary

Workorder: 637334

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2493509										
Magnesium			U	ND	mg/L				PRB	09/29/23	13:57
Potassium			U	ND	mg/L						
Sodium			U	ND	mg/L						
QC1205518832 637334001 MS											
Arsenic	0.0500	J	0.00800	0.0414	mg/L		66.8*	(75%-125%)		09/28/23	23:00
Boron	0.100		3.20	3.18	mg/L		N/A	(75%-125%)		09/29/23	14:40
Calcium	2.00		319	307	mg/L		N/A	(75%-125%)			
Magnesium	2.00		935	900	mg/L		N/A	(75%-125%)			
Potassium	2.00		295	285	mg/L		N/A	(75%-125%)			
Sodium	2.00		8140	7110	mg/L		N/A	(75%-125%)		09/29/23	14:00
QC1205518833 637334001 MSD											
Arsenic	0.0500	J	0.00800	0.0428	mg/L	3.32	69.6*	(0%-20%)		09/28/23	23:03
Boron	0.100		3.20	3.31	mg/L	4.2	N/A	(0%-20%)		09/29/23	14:42
Calcium	2.00		319	320	mg/L	4.07	N/A	(0%-20%)			
Magnesium	2.00		935	933	mg/L	3.68	N/A	(0%-20%)			
Potassium	2.00		295	295	mg/L	3.31	N/A	(0%-20%)			
Sodium	2.00		8140	8200	mg/L	14.3	N/A	(0%-20%)		09/29/23	14:02

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QC Summary

Workorder: 637334

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2493509										
QC1205531937	637334001	PS									
Arsenic	50.0	J	8.00	44.6	ug/L		73.2*	(75%-125%)	PRB	09/28/23	23:07
QC1205518834	637334001	SDILT									
Arsenic		J	8.00	2.77	ug/L	73.2		(0%-20%)		09/28/23	23:11
Boron			160	36.4	ug/L	13.9		(0%-20%)		09/29/23	14:44
Calcium			16000	3300	ug/L	3.5		(0%-20%)			
Magnesium			46700	9650	ug/L	3.22		(0%-20%)			
Potassium			14800	3030	ug/L	2.56		(0%-20%)			
Sodium			8140	1700	ug/L	4.48		(0%-20%)		09/29/23	14:04
Solids Analysis											
Batch	2494592										
QC1205521204	636837001	DUP									
Total Dissolved Solids			392	381	mg/L	2.85		(0%-5%)	CH6	09/19/23	14:56
QC1205521203	LCS										
Total Dissolved Solids	300			300	mg/L		100	(95%-105%)		09/19/23	14:56
QC1205521202	MB										
Total Dissolved Solids			U	ND	mg/L					09/19/23	14:56
Titration and Ion Analysis											
Batch	2494333										
QC1205523046	637334003	DUP									
Alkalinity, Total as CaCO3			118	118	mg/L	0.0846		(0%-20%)	HH2	09/20/23	11:50
Bicarbonate alkalinity (CaCO3)			118	118	mg/L	0.0846		(0%-20%)			

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QC Summary

Workorder: 637334

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Titration and Ion Analysis											
Batch	2494333										
Carbonate alkalinity (CaCO3)	U	ND	U	ND	mg/L	N/A			HH2	09/20/23	11:50
QC1205520634 LCS											
Alkalinity, Total as CaCO3	50.0			52.1	mg/L		104	(90%-110%)		09/20/23	11:01
QC1205523048 LCS											
Alkalinity, Total as CaCO3	15.0			14.9	mg/L		99.3	(90%-110%)		09/20/23	11:03
QC1205523047 637334003 MS											
Alkalinity, Total as CaCO3	50.0	118		169	mg/L		102	(80%-120%)		09/20/23	11:52

Notes:

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- NI See case narrative

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QC Summary

Workorder: 637334

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Y											
Y											
R											
B											
e											
J											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Technical Case Narrative
Georgia Power Company
SDG #: 637334**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

Analytical Procedure: GL-MA-E-014 REV# 36

Analytical Batch: 2493509

Preparation Method: SW846 3005A

Preparation Procedure: GL-MA-E-006 REV# 14

Preparation Batch: 2493507

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
637334001	MCM-T2-1HT
637334002	MCM-T2-2HT
637334003	MCM-T2-2HTS
637334004	MCM-T2-3HT
637334005	MCM-T2-3HTS
637334006	MCM-T2-4HT
637334007	MCM-T2-4HTS
637334008	MCM-T2-4LT
637334009	MCM-BG-1LT
637334010	MCM-BG-2HT
637334011	MCM-CSURF-FD-01
637334012	MCM-CSURF-FB-01
637334014	MCM-CSURF-EB-01
1205518830	Method Blank (MB) ICP-MS
1205518831	Laboratory Control Sample (LCS)
1205518834	637334001(MCM-T2-1HTL) Serial Dilution (SD)
1205518832	637334001(MCM-T2-1HTS) Matrix Spike (MS)
1205518833	637334001(MCM-T2-1HTSD) Matrix Spike Duplicate (MSD)
1205531937	637334001(MCM-T2-1HTPS) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

ICSA/ICSAB Statement

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Quality Control (QC) Information

Matrix Spike (MS/MSD) Recovery Statement

The percent recoveries (%R) obtained from the MS/MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS/MSD (See Below) did not meet the recommended quality control acceptance criteria for percent recoveries for the following applicable analytes. The post spike also did not meet the required control limits; thus, confirming matrix interferences and/or sample non-homogeneity.

Sample	Analyte	Value
1205518832 (MCM-T2-1HTMS)	Arsenic	66.8* (75%-125%)
1205518833 (MCM-T2-1HTMSD)	Arsenic	69.6* (75%-125%)

Post Spike (PS) Recovery Statement

The percent recoveries (%R) obtained from the PS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The PS did not meet the recommended quality control acceptance criteria for percent recoveries for all applicable analytes and verifies the presence of matrix interferences.

Sample	Analyte	Value
1205531937 (MCM-T2-1HTPS)	Arsenic	73.2* (75%-125%)

Technical Information

Sample Dilutions

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 637334001 (MCM-T2-1HT), 637334002 (MCM-T2-2HT), 637334003 (MCM-T2-2HTS), 637334004 (MCM-T2-3HT), 637334005 (MCM-T2-3HTS), 637334006 (MCM-T2-4HT), 637334007 (MCM-T2-4HTS), 637334008 (MCM-T2-4LT), 637334009 (MCM-BG-1LT), 637334010 (MCM-BG-2HT) and 637334011 (MCM-CSURF-FD-01) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	637334									
	001	002	003	004	005	006	007	008	009	010
Boron	20X	20X	20X	20X	20X	20X	20X	20X	20X	40X
Calcium	20X	20X	20X	20X	20X	20X	20X	20X	20X	40X
Magnesium	20X	20X	20X	20X	20X	20X	20X	20X	20X	40X
Potassium	20X	20X	20X	20X	20X	20X	20X	20X	20X	40X
Sodium	1000X	1000X	1000X	1000X	1000X	1000X	1000X	1000X	1000X	1000X

Analyte	637334
	011
Boron	20X
Calcium	20X
Magnesium	20X
Potassium	20X
Sodium	1000X

General Chemistry

Product: Ion Chromatography

Analytical Method: EPA 300.0

Analytical Procedure: GL-GC-E-086 REV# 33

Analytical Batch: 2493502

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
637334001	MCM-T2-1HT
637334002	MCM-T2-2HT
637334003	MCM-T2-2HTS
637334004	MCM-T2-3HT
637334005	MCM-T2-3HTS
637334006	MCM-T2-4HT
1205518820	Method Blank (MB)
1205518821	Laboratory Control Sample (LCS)
1205518822	637268022(MCM-MCM-04) Sample Duplicate (DUP)
1205518823	637268022(MCM-MCM-04) Post Spike (PS)
1205518824	637334004(MCM-T2-3HT) Sample Duplicate (DUP)
1205518825	637334004(MCM-T2-3HT) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Sample Dilutions

The following samples 1205518822 (MCM-MCM-04DUP), 1205518823 (MCM-MCM-04PS), 1205518824 (MCM-T2-3HTDUP), 1205518825 (MCM-T2-3HTPS), 637334001 (MCM-T2-1HT), 637334002 (MCM-T2-2HT), 637334003 (MCM-T2-2HTS), 637334004 (MCM-T2-3HT), 637334005 (MCM-T2-3HTS) and 637334006 (MCM-T2-4HT) were diluted because target analyte concentrations exceeded the calibration range. Samples 1205518824 (MCM-T2-3HTDUP), 1205518825 (MCM-T2-3HTPS), 637334001 (MCM-T2-1HT), 637334002 (MCM-T2-2HT), 637334003 (MCM-T2-2HTS), 637334004 (MCM-T2-3HT), 637334005 (MCM-T2-3HTS) and 637334006 (MCM-T2-4HT) were diluted to minimize matrix effects on instrument performance. Samples 1205518822 (MCM-MCM-04DUP), 1205518823 (MCM-MCM-04PS), 1205518824 (MCM-T2-3HTDUP), 1205518825 (MCM-T2-3HTPS), 637334001 (MCM-T2-1HT), 637334002 (MCM-T2-2HT), 637334003 (MCM-T2-2HTS), 637334004 (MCM-T2-3HT), 637334005 (MCM-T2-3HTS) and 637334006 (MCM-T2-4HT) were diluted based on historical data. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	637334					
	001	002	003	004	005	006
Chloride	4000X	4000X	2000X	2000X	2000X	2000X

Fluoride	40X	40X	40X	40X	40X	40X
Sulfate	2000X	2000X	2000X	2000X	2000X	1000X

Product: Ion Chromatography

Analytical Method: EPA 300.0

Analytical Procedure: GL-GC-E-086 REV# 33

Analytical Batch: 2493582

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
637334007	MCM-T2-4HTS
637334008	MCM-T2-4LT
637334009	MCM-BG-1LT
637334010	MCM-BG-2HT
637334011	MCM-CSURF-FD-01
637334012	MCM-CSURF-FB-01
637334014	MCM-CSURF-EB-01
1205518914	Method Blank (MB)
1205518915	Laboratory Control Sample (LCS)
1205518918	637334007(MCM-T2-4HTS) Sample Duplicate (DUP)
1205518919	637334007(MCM-T2-4HTS) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Sample Dilutions

The following samples 1205518918 (MCM-T2-4HTSDUP), 1205518919 (MCM-T2-4HTSPS), 637334007 (MCM-T2-4HTS), 637334008 (MCM-T2-4LT), 637334009 (MCM-BG-1LT), 637334010 (MCM-BG-2HT) and 637334011 (MCM-CSURF-FD-01) were diluted because target analyte concentrations exceeded the calibration range. The following sample 637334011 (MCM-CSURF-FD-01) in this sample group was diluted due to matrix interference. Samples 1205518918 (MCM-T2-4HTSDUP), 1205518919 (MCM-T2-4HTSPS), 637334007 (MCM-T2-4HTS), 637334008 (MCM-T2-4LT), 637334009 (MCM-BG-1LT), 637334010 (MCM-BG-2HT) and 637334011 (MCM-CSURF-FD-01) were diluted to minimize matrix effects on instrument performance. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	637334				
	007	008	009	010	011
Chloride	2000X	2000X	2000X	4000X	4000X
Fluoride	25X	40X	40X	40X	50X
Sulfate	2000X	2000X	2000X	4000X	4000X

Sample Re-analysis

Samples 1205518914 (MB) and 1205518915 (LCS) were re-analyzed due to CCV failure. The reanalysis data with passing instrument QC was reported. Sample 1205518914 (MB) was re-analyzed due to (its) proximity to an overrange sample. The results from the reanalysis are reported.

Miscellaneous Information**Manual Integrations**

Sample 637334011 (MCM-CSURF-FD-01) was manually integrated to correctly position the baseline as set in the calibration standards.

Product: Solids, Total Dissolved

Analytical Method: SM 2540C

Analytical Procedure: GL-GC-E-001 REV# 21

Analytical Batch: 2494592

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
637334001	MCM-T2-1HT
637334002	MCM-T2-2HT
637334003	MCM-T2-2HTS
637334004	MCM-T2-3HT
637334005	MCM-T2-3HTS
637334006	MCM-T2-4HT
637334007	MCM-T2-4HTS
637334008	MCM-T2-4LT
637334009	MCM-BG-1LT
637334010	MCM-BG-2HT
637334011	MCM-CSURF-FD-01
637334012	MCM-CSURF-FB-01
637334014	MCM-CSURF-EB-01
1205521202	Method Blank (MB)
1205521203	Laboratory Control Sample (LCS)
1205521204	636837001(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information**Consecutive Weight Checks**

In order to meet consecutive weight check criteria, weight events must be within 0.0005g of each other. After initial weight checks failed this criteria, the analyst performed two additional weight events. After four weight events, the analyst was unable to get the samples to conform to the criteria. The failure to meet weigh back criteria is attributed to the matrix of the samples. 637334001 (MCM-T2-1HT), 637334002 (MCM-T2-2HT), 637334004 (MCM-T2-3HT), 637334006 (MCM-T2-4HT), 637334008 (MCM-T2-4LT) and 637334010

(MCM-BG-2HT).

Miscellaneous Information

Additional Comments

A TDS meter was used to check the samples for interference prior to analysis. 637334001 (MCM-T2-1HT), 637334002 (MCM-T2-2HT), 637334003 (MCM-T2-2HTS), 637334004 (MCM-T2-3HT), 637334005 (MCM-T2-3HTS), 637334006 (MCM-T2-4HT), 637334007 (MCM-T2-4HTS), 637334008 (MCM-T2-4LT), 637334009 (MCM-BG-1LT), 637334010 (MCM-BG-2HT) and 637334011 (MCM-CSURF-FD-01).

Product: Alkalinity

Analytical Method: SM 2320B

Analytical Procedure: GL-GC-E-033 REV# 15

Analytical Batch: 2494333

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
637334001	MCM-T2-1HT
637334002	MCM-T2-2HT
637334003	MCM-T2-2HTS
637334004	MCM-T2-3HT
637334005	MCM-T2-3HTS
637334006	MCM-T2-4HT
637334007	MCM-T2-4HTS
637334008	MCM-T2-4LT
637334009	MCM-BG-1LT
637334010	MCM-BG-2HT
637334011	MCM-CSURF-FD-01
637334012	MCM-CSURF-FB-01
637334014	MCM-CSURF-EB-01
1205520634	Laboratory Control Sample (LCS)
1205523046	637334003(MCM-T2-2HTS) Sample Duplicate (DUP)
1205523047	637334003(MCM-T2-2HTS) Matrix Spike (MS)
1205523048	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL Laboratories, LLC
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Radioactive (If yes, please supply isotopic info.)	(7) Known or possible Hazards	Total number of containers	Metals 6010/6020 (Ca, Mg, K, Na, As, B, Z)	Alkalinity/TDS/Antons	Should this sample be considered:	Sample Analysis Requested (5) (Fill in the number of containers for each test)	Preservative Type (6)	Comments
MCM-CSURF-FD-01	9/12/23	1552	G	N	WS			2	X	X		<--	Note: extra sample is required for sample specific QC	
MCM-CSURF-FB-01	9/12/23	1552	G	N	WQ			2	X	X				
MCM-CSURF-FB-	9/12/23	1550	G	N	WQ			2	X	X				
MCM-CSURF-FB-			G	N	WQ			2	X	X				

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>[Signature]</i>	9/15/23	1030	<i>[Signature]</i>	9/15/23	1030

TAT Requested: Normal: _____ Rush: _____ Specify: _____ (Subject to Surchage)

Fax Results: Yes No

Select Deliverable: C of A QC Summary Level 1 Level 2 Level 3 Level 4

Additional Remarks: **Task Code: MCM-CSURF-ASSMT-2023S2**

For Lab Receiving Use Only: Custody Seal Intact? Yes No Cooler Temp: 5 °C

Sample Collection Time Zone: Eastern Pacific Central Mountain Other:

For sample shipping and delivery details, see Sample Receipt & Review form (SRR)

1) Chain of Custody Number = Client Determined

2) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4) Matrix Codes: DW = Drinking Water, GW = Groundwater, SW = Surface Water, WW = Waste Water, W = Water, ML = Misc Liquid, SO = Soil, SD = Sediment, SL = Sludge, SS = Solid Waste, O = Oil, F = Filter, P = Wipe, U = Urine, F = Fecal, N = Nasal

5) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B 7470A - 1).

6) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

7) **KNOWN OR POSSIBLE HAZARDS**

RCRA Metals	Characteristic Hazards	Listed Waste	Other
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/Ignitable CO = Corrosive RE = Reactive TSCA Regulated PCB = Polychlorinated biphenyls	LW = Listed Waste (F, K, P and U-listed wastes.) Waste code(s): _____	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

637334

SAMPLE RECEIPT & REVIEW FORM

637305 637268

Client: <u>GPCC</u>		SDG/AR/COC/Work Order:	
Received By: <u>QG</u>		Date Received: <u>9/15/23</u>	
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier <u>Other</u> <u>client drop off</u>	
Suspected Hazard Information		Yes	No
		<input checked="" type="checkbox"/>	<input type="checkbox"/>
*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.			
A) Shipped as a DOT Hazardous?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
		Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___	
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
		COC notation or radioactive stickers on containers equal client designation.	
C) Did the RSO classify the samples as radioactive?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
		Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM/mR/Hr Classified as: Rad 1 Rad 2 Rad 3	
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
		COC notation or hazard labels on containers equal client designation.	
E) Did the RSO identify possible hazards?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
		If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other: _____	
Sample Receipt Criteria		Yes	NA
		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Comments/Qualifiers (Required for Non-Conforming Items)			
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Circle Applicable: Seals broken Damaged container Leaking container Other (describe)			
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Circle Applicable: Client contacted and provided COC COC created upon receipt			
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice <u>None</u> Other: _____ *all temperatures are recorded in Celsius TEMP: <u>3°C</u>			
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Temperature Device Serial #: <u>IR1-23</u> Secondary Temperature Device Serial # (If Applicable): _____			
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Circle Applicable: Seals broken Damaged container Leaking container Other (describe)			
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample ID's and Containers Affected: If Preservation added, Lot#:			
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:			
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ID's and tests affected:			
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ID's and containers affected:			
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)			
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Circle Applicable: No container count on COC Other (describe)			
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Circle Applicable: Not relinquished Other (describe)			
Comments (Use Continuation Form if needed):			

PM (or PMA) review: Initials AT Date 9/18/23 Page 1 of 1

List of current GEL Certifications as of 29 September 2023

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-23-21
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

Site Name: McManus

Field Instrumentation Calibration Form

Date: 9/12/23

Calibrated By: William Locker

Field Conditions: 87°/69° sunny

50% rain

Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	AquaTroll 400	789310
Turbidity Meter	LaMotte 2020	9429-4417

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24000044	05/2024	Atlanta Instrument Rental, Inc.
pH (SU)	4.00	24000044	05/2024	Atlanta Instrument Rental, Inc.
pH (SU)	7.00	22290139	04/2024	Atlanta Instrument Rental, Inc.
pH (SU)	10.00	22110130	04/2024	Atlanta Instrument Rental, Inc.
D.O. (%)	N/A	24000044	05/2024	Atlanta Instrument Rental, Inc.
ORP (mV)	228.0	24002258	06/2024	Atlanta Instrument Rental, Inc.

Calibration					
Time Start <u>715</u>		Time Finish <u>725</u>			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	<u>4442.2</u>	<u>23.23</u>	± 10% of standard	EPA 2023
pH (SU)	4.00	<u>4.02</u>	<u>23.46</u>	± 0.1	GWMP
pH (SU)	7.00	<u>7.06</u>	<u>23.46</u>	± 0.1	GWMP
pH (SU)	10.00	<u>10.15</u>	<u>24.15</u>	± 0.1	GWMP
D.O. (%)	N/A	<u>96.78</u>	<u>23.42</u>	± 10%	NA
ORP (mV)	228.0	<u>224.9</u>	<u>24.31</u>	± 10	EPA 2023

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	0.00	<u>0.00</u>		
	1.00	<u>0.96</u>		
	10.00	<u>9.86</u>		
		± 10% of standard	EPA 2023	

Calibration Check					
Time Start <u>1550</u>		Time Finish <u>1557</u>			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	<u>4490.8</u>	<u>30.17</u>	± 10% of standard	EPA 2023
pH (SU)	4.00	<u>4.14</u>	<u>30.09</u>	± 0.1	GWMP
pH (SU)	7.00	<u>7.09</u>	<u>30.02</u>	± 0.1	GWMP
pH (SU)	10.00	<u>10.10</u>	<u>31.17</u>	± 0.1	GWMP

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	0.00	<u>0.00</u>		
	1.00	<u>0.97</u>		
	10.00	<u>9.90</u>		
		± 10% of standard	EPA 2023	

Notes

Low-Flow Test Report:

Test Date / Time: 9/12/2023 8:23:53 AM

Project: Plant McManus Surface Water September 2023

Operator Name: William Laaker

Location Name: BG-2HT Initial Depth to Water: 0 ft	Pump Type: GeoTech Peristaltic Tubing Type: LDPE Estimated Total Volume Pumped: 166.667 ml Flow Cell Volume: 90 ml Final Flow Rate: 250 ml/min Final Draw Down: 0 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789310
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Test Notes:

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 %	
9/12/2023 8:23 AM	00:00	6.89 pH	28.39 °C	42,455 µS/cm	4.20 mg/L	6.41 NTU	221.0 mV	0.00 ft	27.76 PSU	250.00 ml/min
9/12/2023 8:24 AM	00:20	6.91 pH	28.43 °C	42,420 µS/cm	4.18 mg/L		212.4 mV	0.00 ft	27.73 PSU	250.00 ml/min
9/12/2023 8:24 AM	00:40	6.93 pH	28.48 °C	42,385 µS/cm	4.15 mg/L	6.41 NTU	204.4 mV	0.00 ft	27.71 PSU	250.00 ml/min

Samples

Sample ID:	Description:
BG-2HT	Metals, Inorganics, Alkalinity, TDS

Low-Flow Test Report:

Test Date / Time: 9/12/2023 8:44:12 AM

Project: Plant McManus Surface Water September 2023

Operator Name: William Laaker

Location Name: T2-1HT Initial Depth to Water: 0 ft	Pump Type: GeoTech Peristaltic Tubing Type: LDPE Estimated Total Volume Pumped: 0 ml Flow Cell Volume: 90 ml Final Flow Rate: 0 ml/min Final Draw Down: 0 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789310
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Test Notes:

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 %	
9/12/2023 8:44 AM	00:00	7.11 pH	30.26 °C	37,025 µS/cm	4.46 mg/L	7.24 NTU	137.0 mV	0.00 ft	23.85 PSU	0.00 ml/min
9/12/2023 8:44 AM	00:20	7.10 pH	29.94 °C	37,240 µS/cm	3.96 mg/L		142.4 mV	0.00 ft	24.00 PSU	0.00 ml/min
9/12/2023 8:44 AM	00:40	7.09 pH	29.65 °C	37,412 µS/cm	3.75 mg/L	7.24 NTU	145.1 mV	0.00 ft	24.12 PSU	0.00 ml/min

Samples

Sample ID:	Description:
T2-1HT	Metals, Inorganics, Alkalinity, TDS

Low-Flow Test Report:

Test Date / Time: 9/12/2023 8:52:10 AM

Project: Plant McManus Surface Water September 2023

Operator Name: William Laaker

Location Name: T2-2HTS Initial Depth to Water: 0 ft	Pump Type: GeoTech Peristaltic Tubing Type: LDPE Estimated Total Volume Pumped: 0 ml Flow Cell Volume: 90 ml Final Flow Rate: 0 ml/min Final Draw Down: 0 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789310
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Test Notes:

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 %	
9/12/2023 8:52 AM	00:00	7.05 pH	28.55 °C	37,937 µS/cm	4.08 mg/L	5.80 NTU	132.0 mV	0.00 ft	24.49 PSU	0.00 ml/min
9/12/2023 8:52 AM	00:20	7.05 pH	28.52 °C	37,994 µS/cm	3.74 mg/L		138.9 mV	0.00 ft	24.53 PSU	0.00 ml/min
9/12/2023 8:52 AM	00:40	7.05 pH	28.47 °C	38,014 µS/cm	3.60 mg/L	5.80 NTU	142.7 mV	0.00 ft	24.55 PSU	0.00 ml/min

Samples

Sample ID:	Description:
T2-2HTS	Metals, Inorganics, Alkalinity, TDS

Low-Flow Test Report:

Test Date / Time: 9/12/2023 8:57:55 AM

Project: Plant McManus Surface Water September 2023

Operator Name: William Laaker

Location Name: T2-2HT	Pump Type: GeoTech Peristaltic Tubing Type: LDPE Estimated Total Volume Pumped: 166.667 ml Flow Cell Volume: 90 ml Final Flow Rate: 250 ml/min	Instrument Used: Aqua TROLL 400 Serial Number: 789310
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Test Notes:

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 %	
9/12/2023 8:57 AM	00:00	7.05 pH	28.18 °C	38,310 µS/cm	2.99 mg/L	5.15 NTU	132.4 mV	0.00 ft	24.76 PSU	250.00 ml/min
9/12/2023 8:58 AM	00:20	7.05 pH	28.21 °C	38,250 µS/cm	2.98 mg/L		138.7 mV	0.00 ft	24.71 PSU	250.00 ml/min
9/12/2023 8:58 AM	00:40	7.04 pH	28.25 °C	38,229 µS/cm	2.98 mg/L	5.15 NTU	143.0 mV	0.00 ft	24.70 PSU	250.00 ml/min

Samples

Sample ID:	Description:
T2-2HT	Metals, Inorganics, Alkalinity, TDS

Low-Flow Test Report:

Test Date / Time: 9/12/2023 9:08:30 AM

Project: Plant McManus Surface Water September 2023

Operator Name: William Laaker

Location Name: T2-3HTS Initial Depth to Water: 0 ft	Pump Type: GeoTech Peristaltic Tubing Type: LDPE Estimated Total Volume Pumped: 0 ml Flow Cell Volume: 90 ml Final Flow Rate: 0 ml/min Final Draw Down: 0 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789310
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Test Notes:

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 %	
9/12/2023 9:08 AM	00:00	7.09 pH	28.52 °C	38,105 µS/cm	4.10 mg/L	6.95 NTU	130.1 mV	0.00 ft	24.61 PSU	0.00 ml/min
9/12/2023 9:08 AM	00:20	7.08 pH	28.48 °C	38,151 µS/cm	3.94 mg/L		138.0 mV	0.00 ft	24.64 PSU	0.00 ml/min
9/12/2023 9:09 AM	00:40	7.08 pH	28.47 °C	38,192 µS/cm	3.82 mg/L	6.95 NTU	142.0 mV	0.00 ft	24.67 PSU	0.00 ml/min

Samples

Sample ID:	Description:
T2-3HTS	Metals, Inorganics, Alkalinity, TDS

Low-Flow Test Report:

Test Date / Time: 9/12/2023 9:16:18 AM

Project: Plant McManus Surface Water September 2023

Operator Name: William Laaker

Location Name: T2-3HT Initial Depth to Water: 0 ft	Pump Type: GeoTech Peristaltic Tubing Type: LDPE Estimated Total Volume Pumped: 166.667 ml Flow Cell Volume: 90 ml Final Flow Rate: 250 ml/min Final Draw Down: 0 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789310
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Test Notes:

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 %	
9/12/2023 9:16 AM	00:00	7.05 pH	28.51 °C	38,805 µS/cm	2.92 mg/L	6.34 NTU	129.8 mV	0.00 ft	25.11 PSU	250.00 ml/min
9/12/2023 9:16 AM	00:20	7.05 pH	28.53 °C	38,824 µS/cm	2.88 mg/L		137.4 mV	0.00 ft	25.13 PSU	250.00 ml/min
9/12/2023 9:16 AM	00:40	7.04 pH	28.53 °C	38,849 µS/cm	2.87 mg/L	6.34 NTU	141.4 mV	0.00 ft	25.15 PSU	250.00 ml/min

Samples

Sample ID:	Description:
T2-3HT	Metals, Inorganics, Alkalinity, TDS

Low-Flow Test Report:

Test Date / Time: 9/12/2023 9:30:44 AM

Project: Plant McManus Surface Water September 2023

Operator Name: William Laaker

Location Name: T2-4HTS Initial Depth to Water: 0 ft	Pump Type: GeoTech Peristaltic Tubing Type: LDPE Estimated Total Volume Pumped: 0 ml Flow Cell Volume: 90 ml Final Flow Rate: 0 ml/min Final Draw Down: 0 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789310
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Test Notes:

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 %	
9/12/2023 9:30 AM	00:00	7.08 pH	31.14 °C	38,067 µS/cm	4.15 mg/L	4.60 NTU	137.3 mV	0.00 ft	24.60 PSU	0.00 ml/min
9/12/2023 9:31 AM	00:20	7.07 pH	30.94 °C	38,168 µS/cm	4.05 mg/L		142.7 mV	0.00 ft	24.67 PSU	0.00 ml/min
9/12/2023 9:31 AM	00:40	7.07 pH	30.75 °C	38,284 µS/cm	4.00 mg/L	4.60 NTU	144.4 mV	0.00 ft	24.75 PSU	0.00 ml/min

Samples

Sample ID:	Description:
T2-4HTS	Metals, Inorganics, Alkalinity, TDS
FD-01	Metals, Inorganics, Alkalinity, TDS

Low-Flow Test Report:

Test Date / Time: 9/12/2023 9:41:18 AM

Project: Plant McManus Surface Water September 2023

Operator Name: William Laaker

Location Name: T2-4HT Initial Depth to Water: 0 ft	Pump Type: GeoTech Peristaltic Tubing Type: LDPE Estimated Total Volume Pumped: 166.667 ml Flow Cell Volume: 90 ml Final Flow Rate: 250 ml/min Final Draw Down: 0 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789310
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Test Notes:

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 %	
9/12/2023 9:41 AM	00:00	7.07 pH	29.42 °C	38,675 µS/cm	3.31 mg/L	4.26 NTU	128.5 mV	0.00 ft	25.03 PSU	250.00 ml/min
9/12/2023 9:41 AM	00:20	7.07 pH	29.37 °C	38,706 µS/cm	3.33 mg/L		137.7 mV	0.00 ft	25.05 PSU	250.00 ml/min
9/12/2023 9:41 AM	00:40	7.09 pH	29.33 °C	38,713 µS/cm	3.37 mg/L	4.26 NTU	142.1 mV	0.00 ft	25.05 PSU	250.00 ml/min

Samples

Sample ID:	Description:
T2-4HT	Metals, Inorganics, Alkalinity, TDS

Low-Flow Test Report:

Test Date / Time: 9/12/2023 1:57:01 PM

Project: Plant McManus Surface Water September 2023

Operator Name: William Laaker

Location Name: BG-1LT Initial Depth to Water: 0 ft	Pump Type: GeoTech Peristaltic Tubing Type: LDPE Estimated Total Volume Pumped: 166.667 ml Flow Cell Volume: 90 ml Final Flow Rate: 250 ml/min Final Draw Down: 0 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789310
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Test Notes:

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 %	
9/12/2023 1:57 PM	00:00	7.08 pH	33.02 °C	37,633 µS/cm	4.85 mg/L	11.10 NTU	127.7 mV	0.00 ft	24.29 PSU	250.00 ml/min
9/12/2023 1:57 PM	00:20	7.08 pH	32.74 °C	37,858 µS/cm	5.02 mg/L		136.0 mV	0.00 ft	24.46 PSU	250.00 ml/min
9/12/2023 1:57 PM	00:40	7.08 pH	32.57 °C	38,000 µS/cm	5.12 mg/L	11.10 NTU	140.1 mV	0.00 ft	24.56 PSU	250.00 ml/min

Samples

Sample ID:	Description:
BG-1LT	Metals, Inorganics, Alkalinity, TDS

Low-Flow Test Report:

Test Date / Time: 9/12/2023 2:26:06 PM

Project: Plant McManus Surface Water September 2023

Operator Name: William Laaker

Location Name: T2-4LT Initial Depth to Water: 0 ft	Pump Type: GeoTech Peristaltic Tubing Type: LDPE Estimated Total Volume Pumped: 0 ml Flow Cell Volume: 90 ml Final Flow Rate: 0 ml/min Final Draw Down: 0 ft	Instrument Used: Aqua TROLL 400 Serial Number: 789310
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Test Notes:

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 %	
9/12/2023 2:26 PM	00:00	7.15 pH	36.19 °C	32,634 µS/cm	4.33 mg/L	7.56 NTU	142.1 mV	0.00 ft	20.74 PSU	0.00 ml/min
9/12/2023 2:26 PM	00:20	7.13 pH	35.62 °C	33,003 µS/cm	4.33 mg/L		145.0 mV	0.00 ft	21.00 PSU	0.00 ml/min
9/12/2023 2:26 PM	00:40	7.11 pH	35.26 °C	33,344 µS/cm	4.31 mg/L	7.56 NTU	147.1 mV	0.00 ft	21.24 PSU	0.00 ml/min

Samples

Sample ID:	Description:
T2-4LT	Metals, Inorganics, Alkalinity, TDS

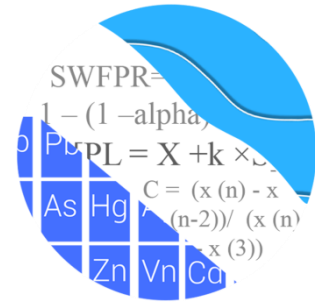
APPENDIX D

STATISTICAL ANALYSES

GROUNDWATER STATS CONSULTING

February 28, 2024

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 2023 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 2023 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

Sampling began in 2016 for the majority of wells. Upgradient wells MCM-18, MCM-19, and MCM-20, however, 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.

Piezometers PT-01, PT-02, PT-03, and PT-04D were, reportedly, installed to support assessment of corrective measures and remedy selection. Baseline data collected from the piezometers will be utilized to establish conditions prior to implementation of a pilot study. These piezometers are discussed separately below.

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 replacement of the most recent reporting limit is used for non-detect data. However, the reporting limits for some constituents during recent events were at or above the MCL or CCR-Rule Specified Levels. In order maintain conservative limits, the following historic reporting limits were substituted:

- Cadmium: 0.0025 mg/L
- Chromium: 0.01 mg/L
- Cobalt: 0.0025 mg/L
- Fluoride: 0.1 mg/L
- Lead: 0.005 mg/L
- Lithium: 0.025 mg/L
- Molybdenum: 0.01 mg/L

Some constituents exist in higher concentrations in upgradient wells compared to those reported in one or more downgradient wells which is reflective of spatial 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 spatial 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 previously 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, elevated concentrations for combined radium 226 + 228 in upgradient well MCM-20 during the baseline sampling period were truncated and a high value for fluoride in downgradient well MCM-06 was flagged as an outlier. 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 EPD 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, 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 for parametric limits. 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 screening for any new outliers. 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 2023

All Appendix III parameters were analyzed using interwell prediction limits. Background (upgradient) well data were reassessed for potential outliers during this analysis. No additional outliers were flagged at this time. 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 2023 (Figure D). Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The September 2023 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-12 and MCM-17
- 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 at the 99% confidence level (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 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:

- None

Decreasing:

- pH: MCM-11 (upgradient), MCM-14, and MCM-20 (upgradient)

Statistical Analysis of Appendix IV Parameters – September 2023

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. Any 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. No additional individual observations were flagged as outliers. Both a summary of all flagged outliers (Figure C) and a list of any truncated records follow this report.

During this analysis, selenium at upgradient wells MCM-18, MCM-19, and MCM-20 was analyzed with the Mann-Whitney test to compare the medians of observations sampled before March 2020 to the medians of the most recent observations sampled at each respective well through September 2023 (Figure F). When the medians of the two groups are statistically significantly different at the 99% confidence level, historical data sampled during the baseline period may be truncated to only use more recent data. Statistically significant differences were identified for all three upgradient wells; therefore, the observations from the baseline sampling period for these well/constituent pairs were truncated in order to generate statistical limits that are more conservative from a regulatory perspective.

Interwell Upper Tolerance Limits

Interwell tolerance limits were used to calculate site-specific background limits from all available pooled upgradient well data through September 2023 for Appendix IV constituents (Figure G). 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 constructed.

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 H).

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 2023 (Figure I). Note that confidence intervals require a minimum of 4 samples.

The Sanitas software was used to calculate the confidence intervals. These intervals were constructed as either parametric or nonparametric confidence intervals depending on the data distribution and percentage of non-detects. When data followed a normal or transformed-normal distribution, parametric confidence intervals were used for Appendix IV parameters. Nonparametric confidence intervals, which use the appropriate order statistics, depending on the sample size, as interval limits, were constructed when data did not follow a normal or transformed-normal distribution or when there were greater than 50% non-detects. The lower confidence limit, which is constructed with 99% confidence for parametric confidence intervals, is compared to the GWPS prepared as described above. The achievable confidence level associated with nonparametric confidence intervals is dependent upon the number samples available.

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

Data at wells with confidence interval exceedances are further evaluated using the Sen's Slope/Mann Kendall trend test at the 95% confidence level to determine whether concentrations are statistically increasing, decreasing, or stable (Figure J). Although the trend tests for Assessment monitoring pairs were previously evaluated using 99% confidence, the 95% confidence level more rapidly identifies statistically significant trends. Additionally, the 95% confidence is recommended in cases with limited sample sizes and, particularly, for new assessment wells. 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 wells, it is an indication of variability in groundwater quality unrelated to practices at the site. A summary of the Appendix IV trend test results follows this letter. Statistically significant trends were identified for the following well/constituent pairs:

Increasing:

- None

Decreasing:

- Arsenic: MCM-06

Addendum Reports – December 2023 Sample Event

Additional data were collected in December 2023 for arsenic, sulfate, and TDS at wells MCM-06, MCM-20, and DPZ-2, and chloride and fluoride at MCM-06. These well/constituent pairs were plotted along with upgradient wells for reference on time series and box plots (Figures K and L).

Appendix III Resamples

Interwell prediction limits were constructed using pooled upgradient well data through December 2023 to compare the December 2023 resample for chloride, fluoride, sulfate, and TDS at well downgradient well MCM-06 (Figure M). No changes to the interwell prediction limits occurred and no exceedances were identified.

Appendix IV Resamples

Upper tolerance limits were recalculated for arsenic and fluoride as described above to using all available pooled upgradient well data through December 2023 (Figure N). No changes to the upper tolerance limits occurred. Confidence intervals were constructed for arsenic and fluoride at assessment well DPZ-02 and downgradient well MCM-06 using data through December 2023 (Figure O) and compared to the GWPS as described above. The following exceedance was identified:

- Arsenic: MCM-06

Piezometers

As discussed earlier, baseline data collected at piezometers PT-01, PT-02, PT-03, and PT-04D are plotted on time series graphs to monitor concentrations over time (Figure P).

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 11/17/2023 3:07 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)
MCM-14

Thallium (mg/L)
DPZ-02, MCM-04, MCM-05, MCM-07, MCM-12, MCM-14

Date Ranges

Date: 11/20/2023 2:25 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Combined Radium 226 + 228 (pCi/L)

MCM-20 overall:10/13/2020-9/13/2023

Selenium (mg/L)

MCM-18 overall:3/26/2020-9/14/2023

MCM-19 overall:3/26/2020-9/13/2023

MCM-20 overall:3/26/2020-9/13/2023

Appendix III - Interwell Prediction Limits - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/17/2023, 2:54 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq N	Bq Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MCM-12	1.3	n/a	9/12/2023	1.42	Yes	138	n/a	n/a	7.246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-17	1.3	n/a	9/13/2023	1.97	Yes	138	n/a	n/a	7.246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-05	5.81	3.36	9/12/2023	6.81	Yes	143	n/a	n/a	0	n/a	n/a	0.0001922	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-06	5.81	3.36	9/14/2023	7.3	Yes	143	n/a	n/a	0	n/a	n/a	0.0001922	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-07	5.81	3.36	9/13/2023	6.53	Yes	143	n/a	n/a	0	n/a	n/a	0.0001922	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-12	5.81	3.36	9/12/2023	6.43	Yes	143	n/a	n/a	0	n/a	n/a	0.0001922	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-14	5.81	3.36	9/12/2023	6.68	Yes	143	n/a	n/a	0	n/a	n/a	0.0001922	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-17	5.81	3.36	9/13/2023	6.55	Yes	143	n/a	n/a	0	n/a	n/a	0.0001922	NP Inter (normality) 1 of 2

Appendix III - Interwell Prediction Limits - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/17/2023, 2:54 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq N	Bq Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MCM-04	1.3	n/a	9/13/2023	0.047	No	138	n/a	n/a	7.246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-05	1.3	n/a	9/12/2023	0.42	No	138	n/a	n/a	7.246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-06	1.3	n/a	9/14/2023	0.807	No	138	n/a	n/a	7.246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-07	1.3	n/a	9/13/2023	1.21	No	138	n/a	n/a	7.246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-12	1.3	n/a	9/12/2023	1.42	Yes	138	n/a	n/a	7.246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-14	1.3	n/a	9/12/2023	0.657	No	138	n/a	n/a	7.246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-17	1.3	n/a	9/13/2023	1.97	Yes	138	n/a	n/a	7.246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-04	202	n/a	9/13/2023	4.93	No	139	n/a	n/a	0.7194	n/a	n/a	0.0001013	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-05	202	n/a	9/12/2023	61.5	No	139	n/a	n/a	0.7194	n/a	n/a	0.0001013	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-06	202	n/a	9/14/2023	83.1	No	139	n/a	n/a	0.7194	n/a	n/a	0.0001013	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-07	202	n/a	9/13/2023	136	No	139	n/a	n/a	0.7194	n/a	n/a	0.0001013	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-12	202	n/a	9/12/2023	4.98	No	139	n/a	n/a	0.7194	n/a	n/a	0.0001013	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-14	202	n/a	9/12/2023	55.3	No	139	n/a	n/a	0.7194	n/a	n/a	0.0001013	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-17	202	n/a	9/13/2023	84.6	No	139	n/a	n/a	0.7194	n/a	n/a	0.0001013	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-04	8600	n/a	9/13/2023	10.4	No	138	n/a	n/a	0.7246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-05	8600	n/a	9/12/2023	1330	No	138	n/a	n/a	0.7246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-06	8600	n/a	9/14/2023	2220	No	138	n/a	n/a	0.7246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-07	8600	n/a	9/13/2023	3690	No	138	n/a	n/a	0.7246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-12	8600	n/a	9/12/2023	326	No	138	n/a	n/a	0.7246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-14	8600	n/a	9/12/2023	1180	No	138	n/a	n/a	0.7246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-17	8600	n/a	9/13/2023	2660	No	138	n/a	n/a	0.7246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-04	3.98	n/a	9/13/2023	0.0941J	No	142	n/a	n/a	49.3	n/a	n/a	0.00009726	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-05	3.98	n/a	9/12/2023	0.374J	No	142	n/a	n/a	49.3	n/a	n/a	0.00009726	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-06	3.98	n/a	9/14/2023	0.246J	No	142	n/a	n/a	49.3	n/a	n/a	0.00009726	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-07	3.98	n/a	9/13/2023	0.982J	No	142	n/a	n/a	49.3	n/a	n/a	0.00009726	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-12	3.98	n/a	9/12/2023	1.32J	No	142	n/a	n/a	49.3	n/a	n/a	0.00009726	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-14	3.98	n/a	9/12/2023	0.1ND	No	142	n/a	n/a	49.3	n/a	n/a	0.00009726	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-17	3.98	n/a	9/13/2023	1.46J	No	142	n/a	n/a	49.3	n/a	n/a	0.00009726	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-04	5.81	3.36	9/13/2023	5.29	No	143	n/a	n/a	0	n/a	n/a	0.0001922	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-05	5.81	3.36	9/12/2023	6.81	Yes	143	n/a	n/a	0	n/a	n/a	0.0001922	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-06	5.81	3.36	9/14/2023	7.3	Yes	143	n/a	n/a	0	n/a	n/a	0.0001922	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-07	5.81	3.36	9/13/2023	6.53	Yes	143	n/a	n/a	0	n/a	n/a	0.0001922	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-12	5.81	3.36	9/12/2023	6.43	Yes	143	n/a	n/a	0	n/a	n/a	0.0001922	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-14	5.81	3.36	9/12/2023	6.68	Yes	143	n/a	n/a	0	n/a	n/a	0.0001922	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-17	5.81	3.36	9/13/2023	6.55	Yes	143	n/a	n/a	0	n/a	n/a	0.0001922	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-04	1300	n/a	9/13/2023	27.1	No	138	n/a	n/a	0.7246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-05	1300	n/a	9/12/2023	139	No	138	n/a	n/a	0.7246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-06	1300	n/a	9/14/2023	263	No	138	n/a	n/a	0.7246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-07	1300	n/a	9/13/2023	620	No	138	n/a	n/a	0.7246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-12	1300	n/a	9/12/2023	1.18	No	138	n/a	n/a	0.7246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-14	1300	n/a	9/12/2023	160	No	138	n/a	n/a	0.7246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-17	1300	n/a	9/13/2023	300	No	138	n/a	n/a	0.7246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-04	15500	n/a	9/13/2023	51	No	139	n/a	n/a	0.7194	n/a	n/a	0.0001013	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-05	15500	n/a	9/12/2023	2940	No	139	n/a	n/a	0.7194	n/a	n/a	0.0001013	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-06	15500	n/a	9/14/2023	4240	No	139	n/a	n/a	0.7194	n/a	n/a	0.0001013	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-07	15500	n/a	9/13/2023	7440	No	139	n/a	n/a	0.7194	n/a	n/a	0.0001013	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-12	15500	n/a	9/12/2023	1230	No	139	n/a	n/a	0.7194	n/a	n/a	0.0001013	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-14	15500	n/a	9/12/2023	2720	No	139	n/a	n/a	0.7194	n/a	n/a	0.0001013	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-17	15500	n/a	9/13/2023	6310	No	139	n/a	n/a	0.7194	n/a	n/a	0.0001013	NP Inter (normality) 1 of 2

Appendix III Trend Tests - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/17/2023, 3:00 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
pH, field (Std. Units)	MCM-11 (bg)	-0.04975	-91	-74	Yes	19	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-14	-0.09264	-129	-81	Yes	20	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-20 (bg)	-0.03841	-75	-58	Yes	16	0	n/a	n/a	0.01	NP

Appendix III Trend Tests - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/17/2023, 3:00 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	MCM-01 (bg)	0.008817	59	68	No	18	11.11	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-02 (bg)	-0.007563	-28	-68	No	18	11.11	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-11 (bg)	0.004059	39	68	No	18	11.11	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-12	0.01369	31	68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-15 (bg)	0.001487	13	68	No	18	11.11	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-16 (bg)	-0.004331	-50	-68	No	18	11.11	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-17	-0.008732	-20	-74	No	19	0	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-18 (bg)	-0.01566	-54	-58	No	16	0	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-19 (bg)	0.01317	9	58	No	16	0	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-20 (bg)	-0.01714	-18	-58	No	16	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-01 (bg)	-0.05799	-41	-81	No	20	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-02 (bg)	0.01681	68	81	No	20	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-05	-0.03198	-48	-87	No	21	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-06	0.003503	6	81	No	20	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-07	-0.04353	-72	-81	No	20	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-11 (bg)	-0.04975	-91	-74	Yes	19	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-12	-0.02929	-54	-74	No	19	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-14	-0.09264	-129	-81	Yes	20	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-15 (bg)	-0.08426	-69	-74	No	19	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-16 (bg)	-0.02704	-32	-74	No	19	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-17	-0.06345	-74	-81	No	20	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-18 (bg)	0.06526	51	53	No	15	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-19 (bg)	-0.01371	-15	-53	No	15	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-20 (bg)	-0.03841	-75	-58	Yes	16	0	n/a	n/a	0.01	NP

Welch's t-test/Mann-Whitney - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/20/2023, 2:53 PM

<u>Constituent</u>	<u>Well</u>	<u>Calc.</u>	<u>0.01</u>	<u>Alpha</u>	<u>Method</u>
Selenium (mg/L)	MCM-18 (bg)	-3.04	Yes	0.01	Mann-W
Selenium (mg/L)	MCM-19 (bg)	-3.311	Yes	0.01	Mann-W
Selenium (mg/L)	MCM-20 (bg)	-3.416	Yes	0.01	Mann-W

Welch's t-test/Mann-Whitney - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/20/2023, 2:53 PM

<u>Constituent</u>	<u>Well</u>	<u>Calc.</u>	<u>0.01</u>	<u>Alpha</u>	<u>Method</u>
Selenium (mg/L)	MCM-18 (bg)	-3.04	Yes	0.01	Mann-W
Selenium (mg/L)	MCM-19 (bg)	-3.311	Yes	0.01	Mann-W
Selenium (mg/L)	MCM-20 (bg)	-3.416	Yes	0.01	Mann-W

Upper Tolerance Limits Summary Table

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/20/2023, 12:42 PM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	0.003	n/a	n/a	n/a	n/a	123	95.93	n/a	0.00182	NP Inter(NDs)
Arsenic (mg/L)	0.032	n/a	n/a	n/a	n/a	143	14.69	n/a	0.0006523	NP Inter(normality)
Barium (mg/L)	0.22	n/a	n/a	n/a	n/a	139	0	n/a	0.0008009	NP Inter(normality)
Beryllium (mg/L)	0.021	n/a	n/a	n/a	n/a	138	28.26	n/a	0.0008431	NP Inter(normality)
Cadmium (mg/L)	0.0043	n/a	n/a	n/a	n/a	116	93.1	n/a	0.002606	NP Inter(NDs)
Chromium (mg/L)	0.011	n/a	n/a	n/a	n/a	123	53.66	n/a	0.00182	NP Inter(NDs)
Cobalt (mg/L)	0.036	n/a	n/a	n/a	n/a	138	73.19	n/a	0.0008431	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	34.9	n/a	n/a	n/a	n/a	129	0	n/a	0.001338	NP Inter(normality)
Fluoride (mg/L)	3.98	n/a	n/a	n/a	n/a	142	49.3	n/a	0.0006867	NP Inter(normality)
Lead (mg/L)	0.005	n/a	n/a	n/a	n/a	138	84.06	n/a	0.0008431	NP Inter(NDs)
Lithium (mg/L)	0.0493	n/a	n/a	n/a	n/a	135	55.56	n/a	0.0009833	NP Inter(NDs)
Mercury (mg/L)	0.0007	n/a	n/a	n/a	n/a	117	95.73	n/a	0.002475	NP Inter(NDs)
Molybdenum (mg/L)	0.01	n/a	n/a	n/a	n/a	122	87.7	n/a	0.001915	NP Inter(NDs)
Selenium (mg/L)	0.034	n/a	n/a	n/a	n/a	115	73.91	n/a	0.002743	NP Inter(NDs)
Thallium (mg/L)	0.002	n/a	n/a	n/a	n/a	122	93.44	n/a	0.001915	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		34.9	34.9
Fluoride, Total (mg/L)	4		3.98	4
Lead, Total (mg/L)	n/a	0.015	0.005	0.015
Lithium, Total (mg/L)	n/a	0.04	0.049	0.049
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		0.034	0.05
Thallium, Total (mg/L)	0.002		0.002	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 Summary Table - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/20/2023, 2:30 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	MCM-06	0.3803	0.22	0.032	Yes 24	0	None	No	0.01	Param.
Lithium (mg/L)	DPZ-02	0.09535	0.07834	0.049	Yes 9	11.11	None	x^5	0.01	Param.
Lithium (mg/L)	MCM-06	0.09179	0.05396	0.049	Yes 19	0	None	No	0.01	Param.

Confidence Intervals Summary Table - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/20/2023, 2:30 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	MCM-06	0.003	0.0029	0.006	No	17	82.35	None	No	0.01	NP (NDs)
Antimony (mg/L)	MCM-14	0.003	0.0004	0.006	No	16	93.75	None	No	0.01	NP (NDs)
Antimony (mg/L)	MCM-17	0.003	0.00078	0.006	No	16	93.75	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DPZ-02	0.0254	0.017	0.032	No	10	10	None	No	0.011	NP (normality)
Arsenic (mg/L)	MCM-04	0.006731	0.002945	0.032	No	19	0	None	x^(1/3)	0.01	Param.
Arsenic (mg/L)	MCM-05	0.01676	0.005909	0.032	No	21	14.29	None	sqrt(x)	0.01	Param.
Arsenic (mg/L)	MCM-06	0.3803	0.22	0.032	Yes	24	0	None	No	0.01	Param.
Arsenic (mg/L)	MCM-07	0.01953	0.01114	0.032	No	21	0	None	No	0.01	Param.
Arsenic (mg/L)	MCM-12	0.01	0.0011	0.032	No	18	55.56	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MCM-14	0.0063	0.00201	0.032	No	18	50	None	No	0.01	NP (normality)
Arsenic (mg/L)	MCM-17	0.0063	0.0018	0.032	No	19	42.11	None	No	0.01	NP (normality)
Barium (mg/L)	DPZ-02	0.08835	0.05748	2	No	7	0	None	No	0.01	Param.
Barium (mg/L)	MCM-04	0.082	0.029	2	No	18	0	None	No	0.01	NP (normality)
Barium (mg/L)	MCM-05	0.0393	0.0097	2	No	19	0	None	No	0.01	NP (normality)
Barium (mg/L)	MCM-06	0.1282	0.06067	2	No	19	0	None	No	0.01	Param.
Barium (mg/L)	MCM-07	0.2	0.0982	2	No	18	0	None	No	0.01	NP (normality)
Barium (mg/L)	MCM-12	0.1217	0.0922	2	No	18	0	None	No	0.01	Param.
Barium (mg/L)	MCM-14	0.118	0.05426	2	No	18	0	None	No	0.01	Param.
Barium (mg/L)	MCM-17	0.1262	0.06759	2	No	18	0	None	No	0.01	Param.
Beryllium (mg/L)	MCM-04	0.0003821	0.0001897	0.021	No	18	44.44	Kaplan-Meier	No	0.01	Param.
Beryllium (mg/L)	MCM-05	0.0005	0.000054	0.021	No	19	94.74	Kaplan-Meier	No	0.01	NP (NDs)
Beryllium (mg/L)	MCM-07	0.0005	0.00012	0.021	No	18	83.33	Kaplan-Meier	No	0.01	NP (NDs)
Beryllium (mg/L)	MCM-12	0.001279	0.0005967	0.021	No	18	11.11	None	sqrt(x)	0.01	Param.
Beryllium (mg/L)	MCM-14	0.0005	0.0001	0.021	No	18	72.22	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MCM-17	0.002	0.0002	0.021	No	18	33.33	None	No	0.01	NP (normality)
Cadmium (mg/L)	MCM-04	0.0025	0.00043	0.005	No	15	93.33	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MCM-07	0.0025	0.0002	0.005	No	15	93.33	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MCM-17	0.0025	0.000093	0.005	No	15	93.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	MCM-04	0.01	0.0012	0.1	No	16	50	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-05	0.01	0.0007	0.1	No	16	56.25	None	No	0.01	NP (NDs)
Chromium (mg/L)	MCM-06	0.01	0.0011	0.1	No	17	70.59	None	No	0.01	NP (NDs)
Chromium (mg/L)	MCM-07	0.01	0.0022	0.1	No	16	43.75	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-12	0.01	0.005	0.1	No	16	31.25	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-14	0.01	0.0015	0.1	No	16	50	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-17	0.01153	0.00697	0.1	No	16	25	Kaplan-Meier	No	0.01	Param.
Cobalt (mg/L)	MCM-04	0.0063	0.0025	0.036	No	19	36.84	None	No	0.01	NP (normality)
Cobalt (mg/L)	MCM-05	0.0025	0.0019	0.036	No	19	89.47	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-06	0.0025	0.0009	0.036	No	19	89.47	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-07	0.0025	0.0011	0.036	No	18	88.89	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-12	0.0025	0.0005	0.036	No	18	55.56	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-14	0.0025	0.0006	0.036	No	18	94.44	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-17	0.0025	0.0007	0.036	No	18	77.78	None	No	0.01	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	DPZ-02	11.13	6.418	34.9	No	6	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-04	5.288	2.889	34.9	No	18	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-05	3.275	1.566	34.9	No	19	0	None	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-06	8.11	1.83	34.9	No	18	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MCM-07	9.172	5.877	34.9	No	19	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-12	3.067	2.195	34.9	No	18	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-14	7.282	3.803	34.9	No	19	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-17	6.648	3.323	34.9	No	19	0	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	DPZ-02	0.11	0.1	4	No	7	85.71	None	No	0.008	NP (NDs)
Fluoride (mg/L)	MCM-04	0.12	0.0941	4	No	19	52.63	None	No	0.01	NP (NDs)
Fluoride (mg/L)	MCM-05	0.5235	0.2691	4	No	21	14.29	None	No	0.01	Param.
Fluoride (mg/L)	MCM-06	0.2384	0.08611	4	No	20	45	Kaplan-Meier	ln(x)	0.01	Param.
Fluoride (mg/L)	MCM-07	0.44	0.1	4	No	20	40	None	No	0.01	NP (normality)

Confidence Intervals Summary Table - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/20/2023, 2:30 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	ND Adj.	Transform	Alpha	Method
Fluoride (mg/L)	MCM-12	1.28	1.019	4	No	19	5.263	None	x^2	0.01	Param.
Fluoride (mg/L)	MCM-14	0.45	0.1	4	No	20	55	None	No	0.01	NP (NDs)
Fluoride (mg/L)	MCM-17	1.2	0.1	4	No	20	35	None	No	0.01	NP (normality)
Lead (mg/L)	MCM-05	0.005	0.0002	0.015	No	19	94.74	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-06	0.005	0.00012	0.015	No	19	94.74	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-07	0.005	0.0002	0.015	No	18	83.33	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-12	0.005	0.00022	0.015	No	18	72.22	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-14	0.005	0.00008	0.015	No	18	94.44	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-17	0.005	0.00034	0.015	No	18	77.78	None	No	0.01	NP (NDs)
Lithium (mg/L)	DPZ-02	0.09535	0.07834	0.049	Yes	9	11.11	None	x^5	0.01	Param.
Lithium (mg/L)	MCM-04	0.025	0.0017	0.049	No	18	55.56	None	No	0.01	NP (NDs)
Lithium (mg/L)	MCM-05	0.0376	0.021	0.049	No	19	0	None	No	0.01	NP (normality)
Lithium (mg/L)	MCM-06	0.09179	0.05396	0.049	Yes	19	0	None	No	0.01	Param.
Lithium (mg/L)	MCM-07	0.039	0.02	0.049	No	19	0	None	No	0.01	NP (normality)
Lithium (mg/L)	MCM-12	0.013	0.0104	0.049	No	18	16.67	None	No	0.01	NP (normality)
Lithium (mg/L)	MCM-14	0.04633	0.02854	0.049	No	19	5.263	None	x^2	0.01	Param.
Lithium (mg/L)	MCM-17	0.02643	0.01631	0.049	No	18	5.556	None	No	0.01	Param.
Mercury (mg/L)	MCM-04	0.00071	0.0002	0.002	No	15	93.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-05	0.0002	0.000042	0.002	No	15	93.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-06	0.0002	0.00016	0.002	No	16	93.75	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-07	0.00067	0.0002	0.002	No	15	93.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-14	0.00066	0.0002	0.002	No	15	93.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-17	0.00064	0.000036	0.002	No	15	86.67	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	DPZ-02	0.01	0.000245	0.1	No	5	80	None	No	0.031	NP (NDs)
Molybdenum (mg/L)	MCM-04	0.01	0.00015	0.1	No	16	93.75	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-05	0.01	0.00095	0.1	No	16	68.75	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-06	0.01	0.00131	0.1	No	17	58.82	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-07	0.01	0.000963	0.1	No	16	81.25	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-12	0.01	0.000423	0.1	No	16	87.5	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-17	0.01	0.0019	0.1	No	16	81.25	None	No	0.01	NP (NDs)
Selenium (mg/L)	DPZ-02	0.025	0.00205	0.05	No	7	85.71	None	No	0.008	NP (NDs)
Selenium (mg/L)	MCM-04	0.005	0.0025	0.05	No	18	83.33	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-05	0.005	0.0028	0.05	No	19	78.95	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-06	0.0054	0.0022	0.05	No	19	57.89	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-07	0.005	0.00238	0.05	No	18	55.56	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-12	0.005	0.0019	0.05	No	18	55.56	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-14	0.0057	0.0025	0.05	No	18	66.67	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-17	0.0067	0.00184	0.05	No	18	50	None	No	0.01	NP (normality)
Thallium (mg/L)	MCM-06	0.002	0.000076	0.002	No	17	94.12	None	No	0.01	NP (NDs)
Thallium (mg/L)	MCM-17	0.002	0.00014	0.002	No	16	93.75	None	No	0.01	NP (NDs)

Appendix IV Trend Tests - Significant Result

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/17/2023, 3:16 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	MCM-06	-0.1166	-31	-23	Yes	10	0	n/a	n/a	0.05	NP

Appendix IV Trend Tests - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/17/2023, 3:16 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	MCM-01 (bg)	-0.0004866	-8	-17	No	8	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	MCM-02 (bg)	0	1	17	No	8	75	n/a	n/a	0.05	NP
Arsenic (mg/L)	MCM-06	-0.1166	-31	-23	Yes	10	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	MCM-11 (bg)	0.003122	17	17	No	8	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	MCM-15 (bg)	0.001101	10	17	No	8	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	MCM-16 (bg)	0	-2	-17	No	8	62.5	n/a	n/a	0.05	NP
Arsenic (mg/L)	MCM-18 (bg)	-0.0001213	-13	-37	No	14	14.29	n/a	n/a	0.05	NP
Arsenic (mg/L)	MCM-19 (bg)	0.0003176	7	37	No	14	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	MCM-20 (bg)	-0.0006308	-13	-41	No	15	0	n/a	n/a	0.05	NP
Lithium (mg/L)	DPZ-02	-0.002279	-14	-20	No	9	11.11	n/a	n/a	0.05	NP
Lithium (mg/L)	MCM-01 (bg)	0	-1	-17	No	8	87.5	n/a	n/a	0.05	NP
Lithium (mg/L)	MCM-02 (bg)	0	0	17	No	8	100	n/a	n/a	0.05	NP
Lithium (mg/L)	MCM-06	-0.02027	-16	-17	No	8	0	n/a	n/a	0.05	NP
Lithium (mg/L)	MCM-11 (bg)	0	-6	-17	No	8	62.5	n/a	n/a	0.05	NP
Lithium (mg/L)	MCM-15 (bg)	0	-1	-17	No	8	87.5	n/a	n/a	0.05	NP
Lithium (mg/L)	MCM-16 (bg)	0	-1	-17	No	8	87.5	n/a	n/a	0.05	NP
Lithium (mg/L)	MCM-18 (bg)	0	1	30	No	12	50	n/a	n/a	0.05	NP
Lithium (mg/L)	MCM-19 (bg)	0	5	37	No	14	7.143	n/a	n/a	0.05	NP
Lithium (mg/L)	MCM-20 (bg)	0.001851	27	37	No	14	0	n/a	n/a	0.05	NP

Interwell Prediction Limits - December 2023 Resample - All Results (No Significant)

Plant McManus Data: McManus Ash Pond Data Printed 1/19/2024, 3:41 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform Alpha	Method
Chloride (mg/L)	MCM-06	8600	n/a	12/6/2023	1970	No	138	n/a	n/a	0.7246	n/a	n/a	0.0001031 NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-06	3.98	n/a	12/6/2023	1.1J	No	142	n/a	n/a	49.3	n/a	n/a	0.00009726NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-06	1300	n/a	12/6/2023	258	No	139	n/a	n/a	0.7194	n/a	n/a	0.0001013 NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-06	15500	n/a	12/6/2023	3780	No	140	n/a	n/a	0.7143	n/a	n/a	0.00009956NP Inter (normality) 1 of 2

Upper Tolerance Limits Summary Table - December 2023 Resample

Plant McManus Data: McManus Ash Pond Data Printed 1/19/2024, 3:44 PM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Bq N</u>	<u>Bq Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	0.032	144	n/a	n/a	14.58	n/a	n/a	0.0006197	NP Inter(normality)
Fluoride (mg/L)	3.98	142	n/a	n/a	49.3	n/a	n/a	0.0006867	NP Inter(normality)

Confidence Intervals - December 2023 Resample - Significant Results

Plant McManus Data: McManus Ash Pond Data Printed 1/19/2024, 3:47 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig. N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	MCM-06	0.3708	0.2102	0.032	Yes 25	0.2905	0.1612	0 None	No	0.01	Param.

Confidence Intervals - December 2023 Resample - All Results

Plant McManus Data: McManus Ash Pond Data Printed 1/19/2024, 3:47 PM

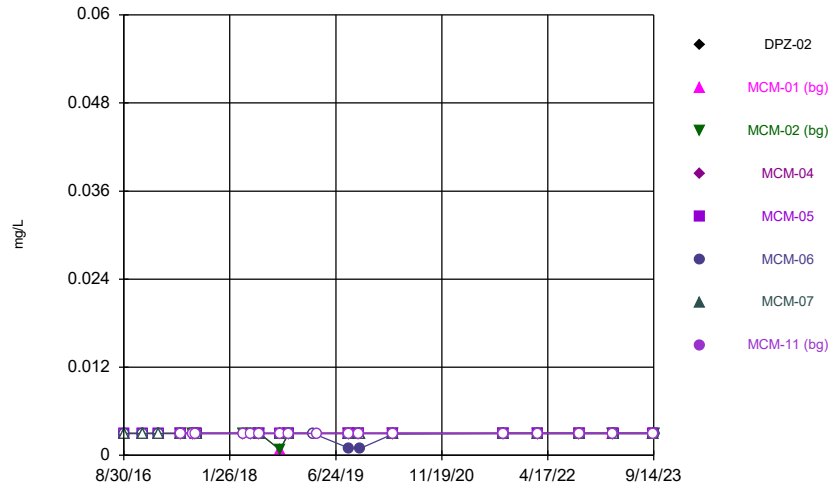
Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	DPZ-02	0.0254	0.017	0.032	No 11	0.02335	0.009349	9.091 None	No	0.006	NP (normality)
Arsenic (mg/L)	MCM-06	0.3708	0.2102	0.032	Yes 25	0.2905	0.1612	0 None	No	0.01	Param.
Fluoride (mg/L)	MCM-06	0.41	0.1	4	No 21	0.2863	0.3039	42.86 None	No	0.01	NP (normality)

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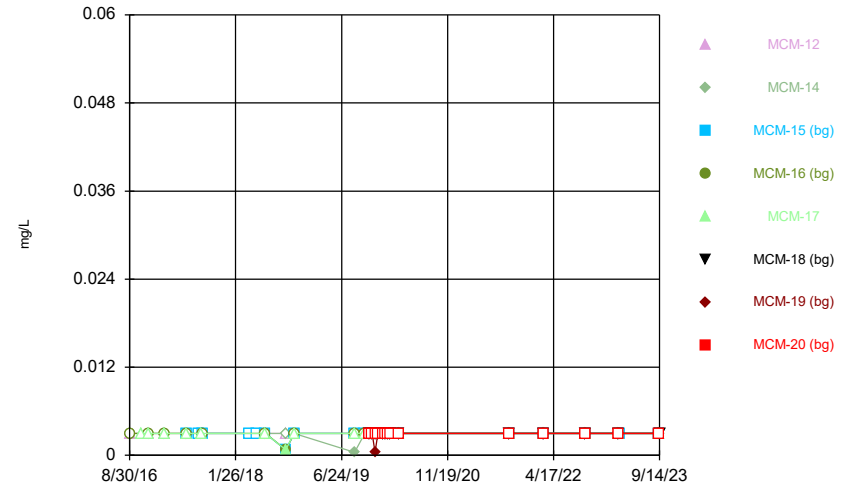
FIGURE A.

Time Series



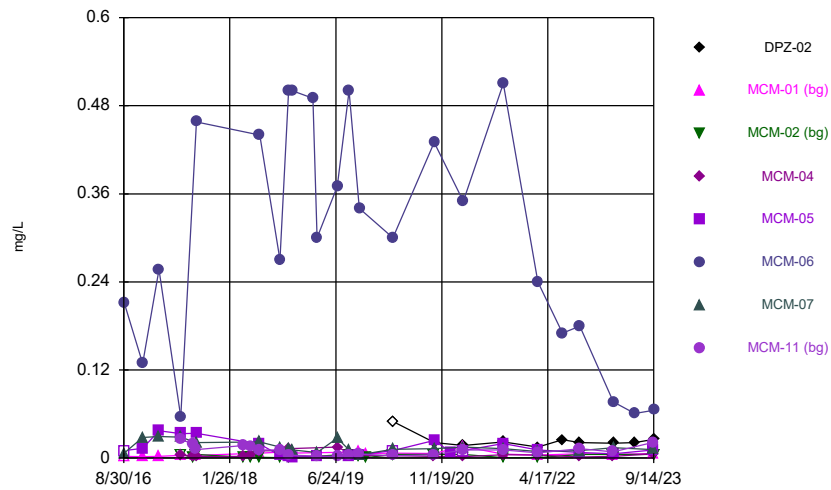
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Time Series



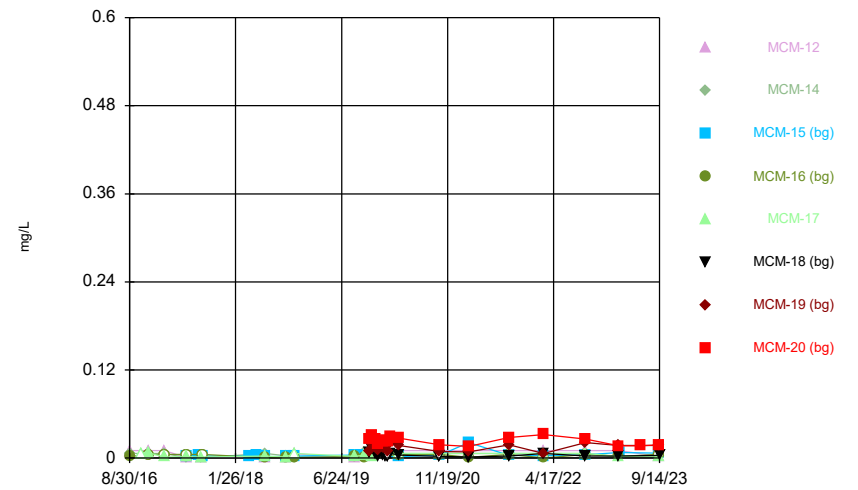
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Time Series



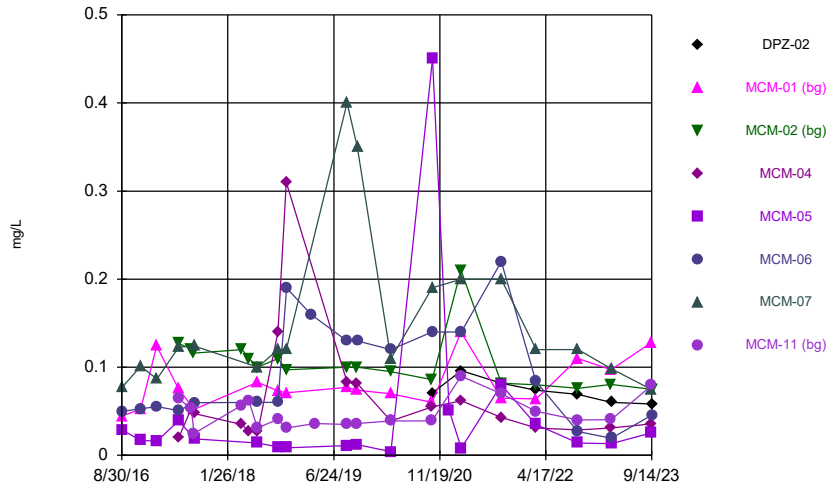
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Time Series



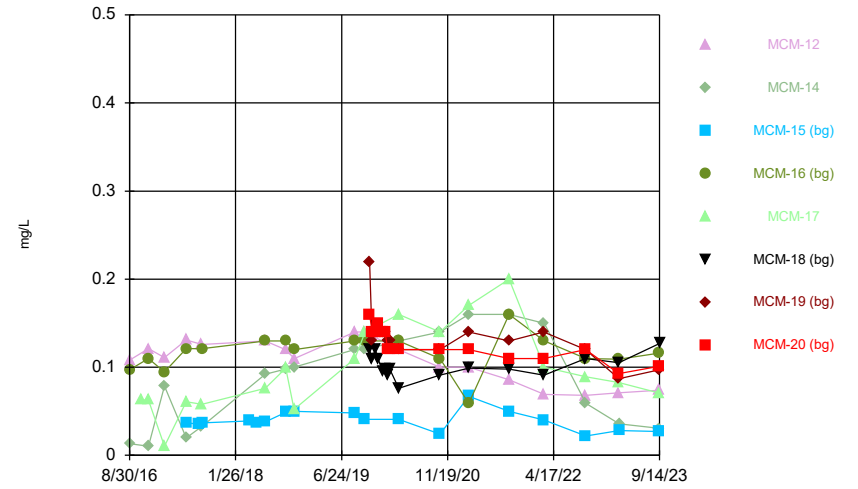
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Time Series



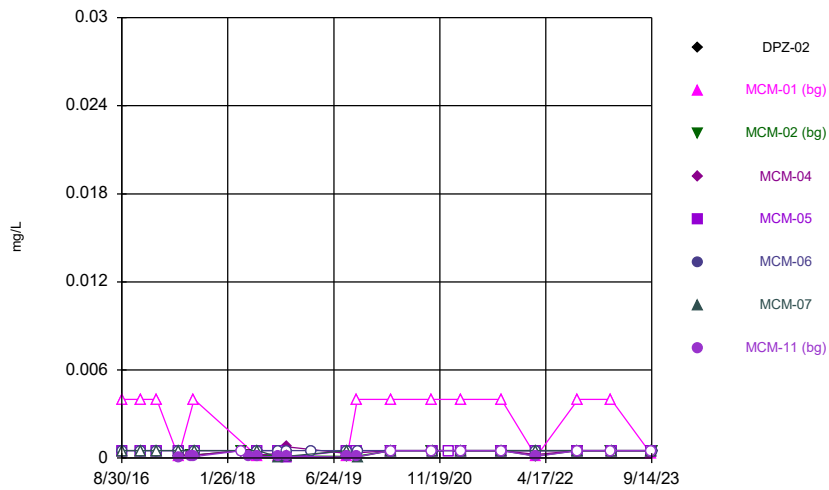
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Time Series



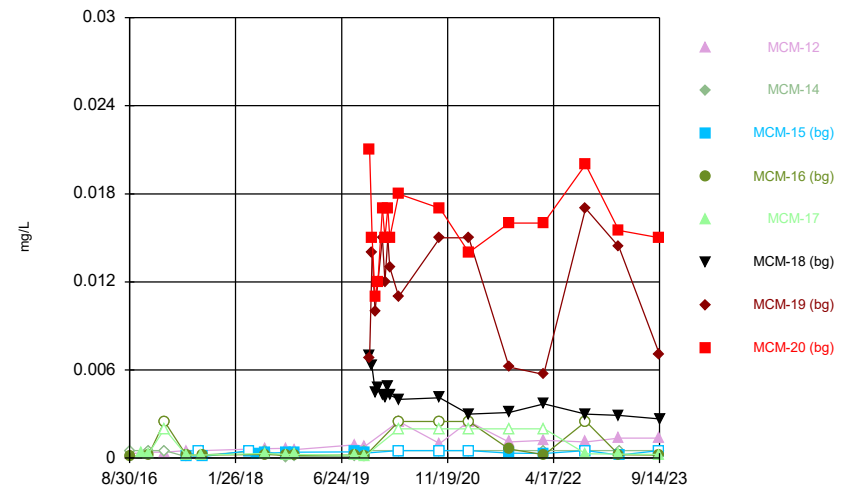
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Time Series



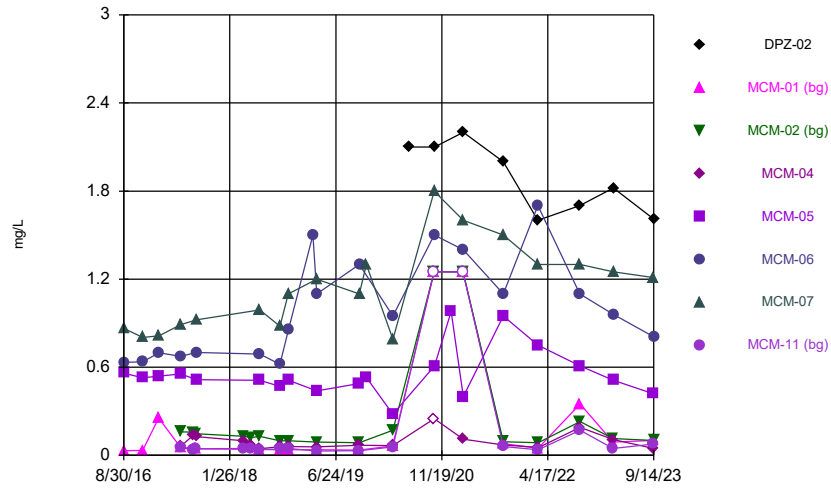
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Time Series



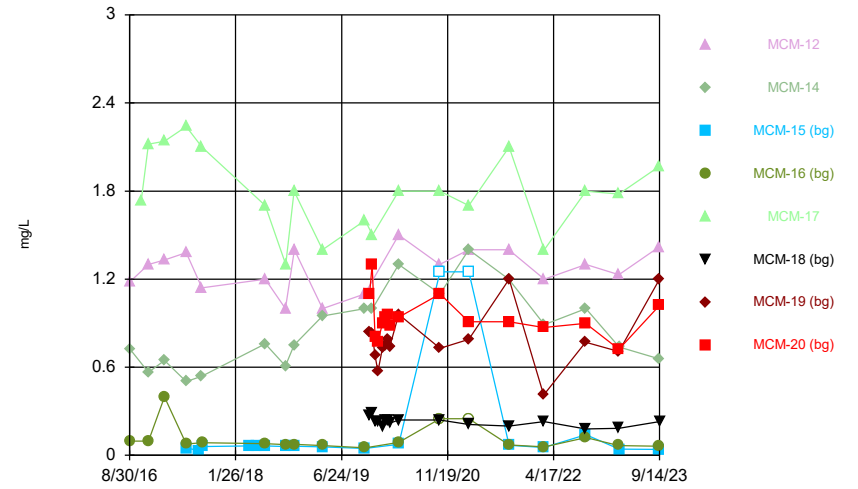
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Time Series



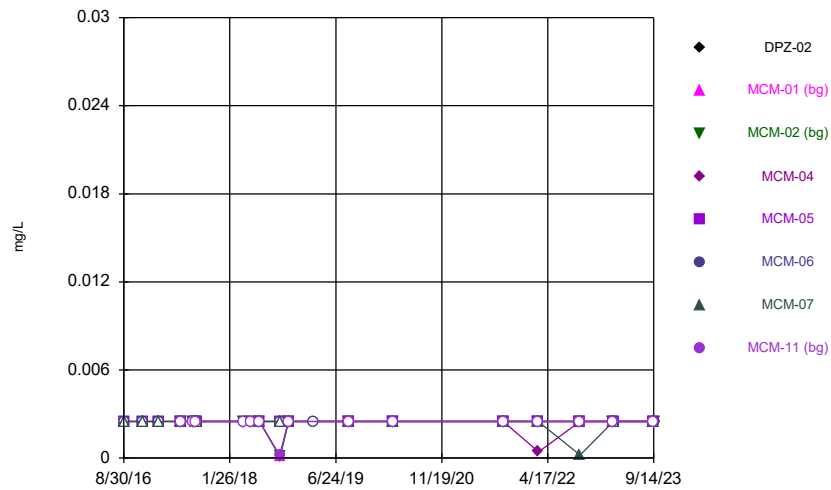
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Time Series



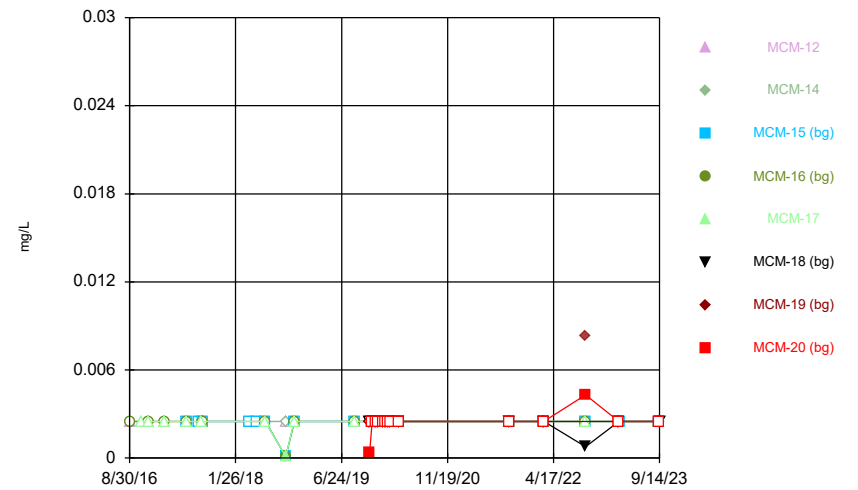
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Time Series



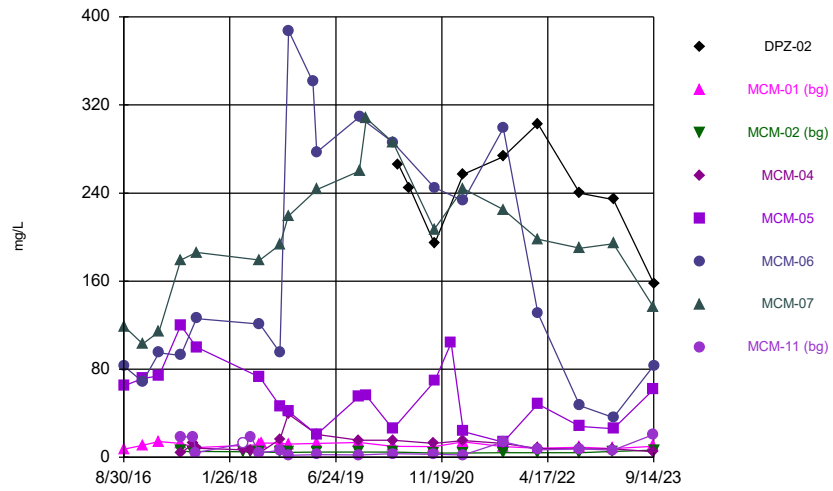
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Time Series



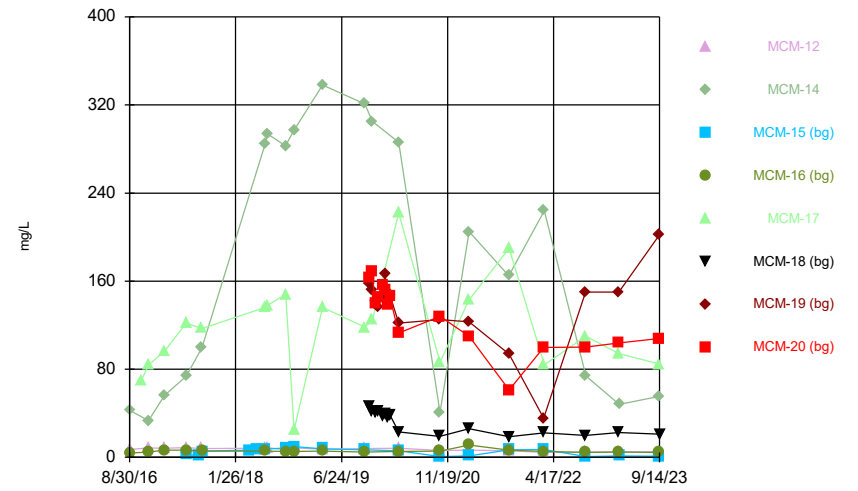
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Time Series



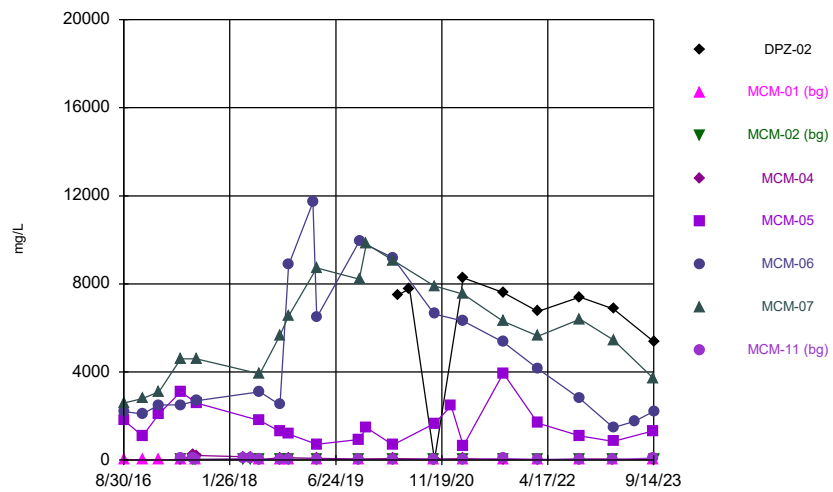
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Time Series



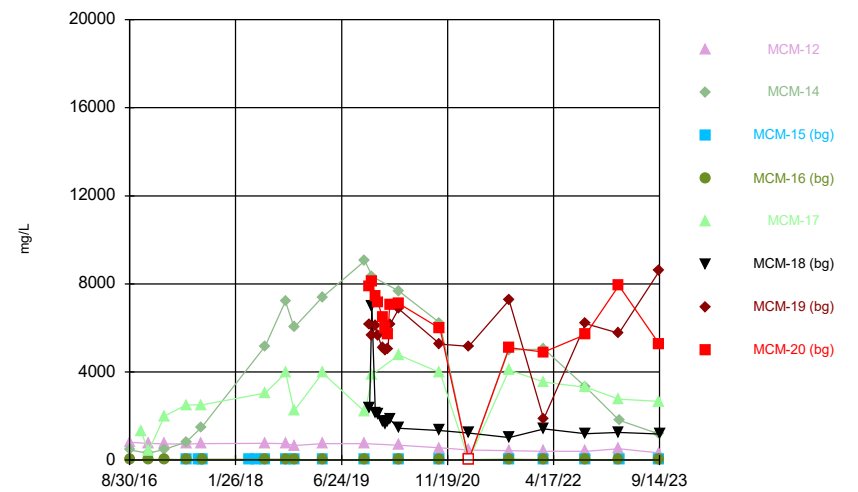
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Time Series



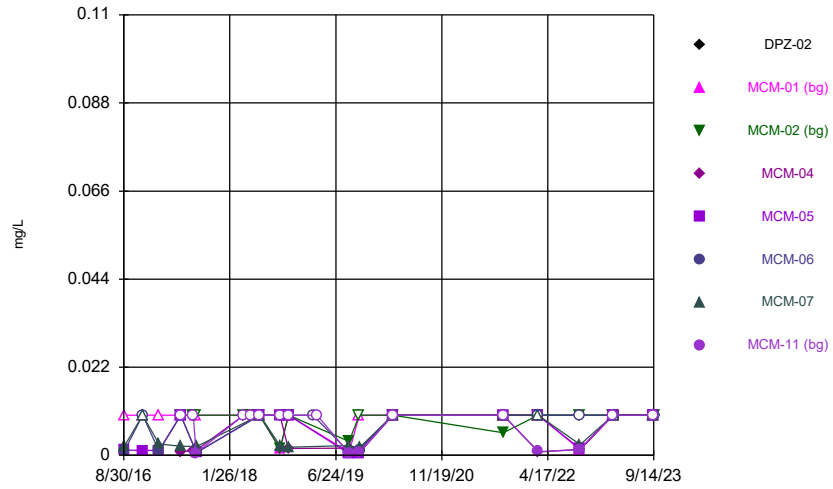
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Time Series



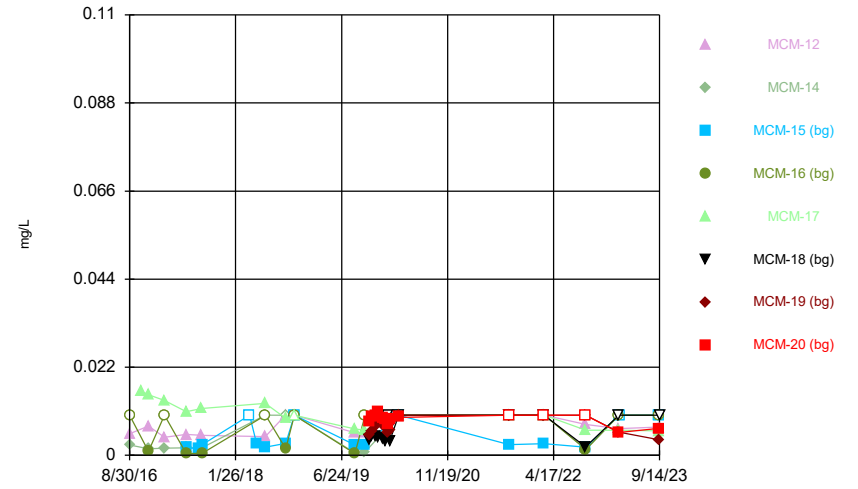
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Time Series



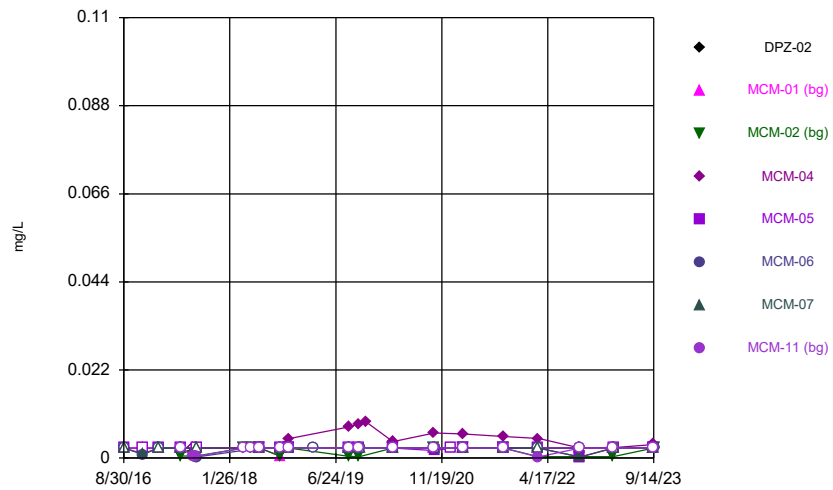
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Time Series



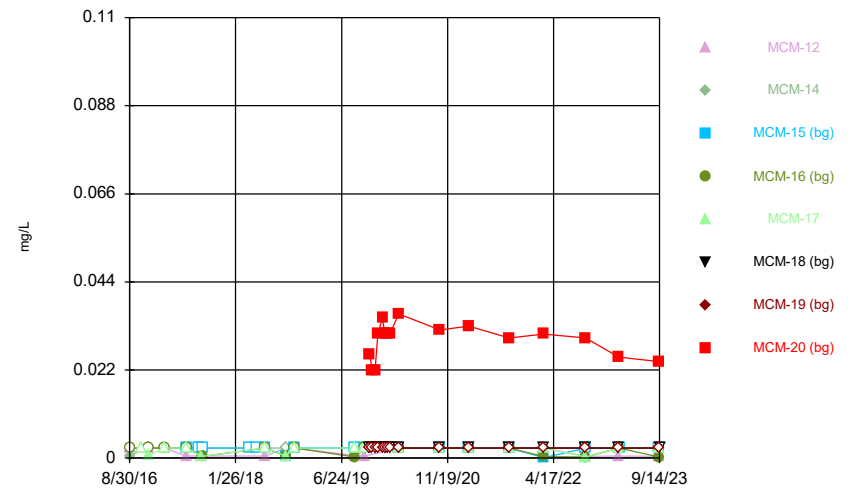
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Time Series



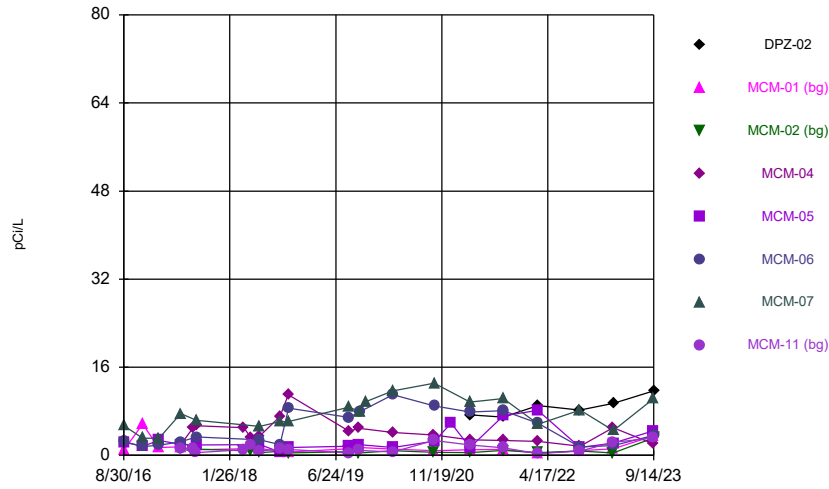
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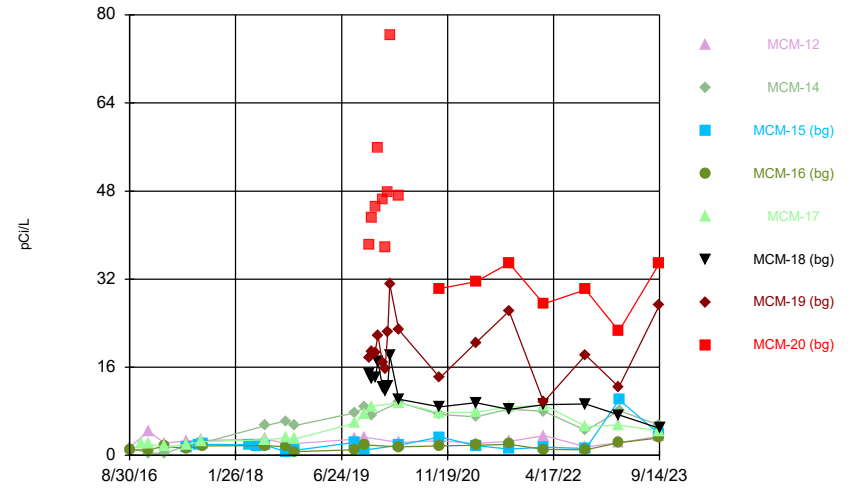
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Time Series



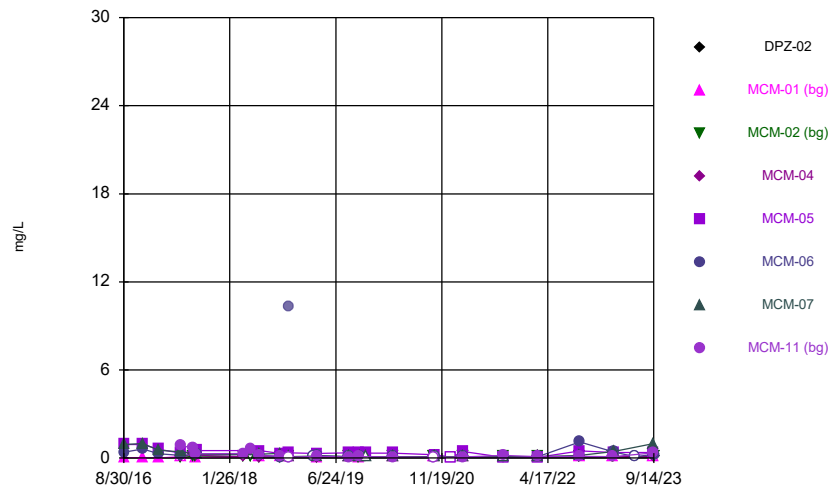
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Time Series



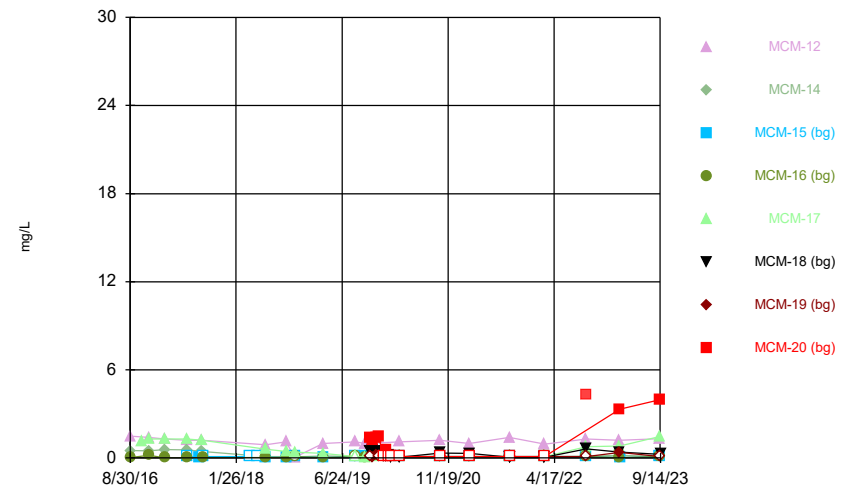
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Time Series



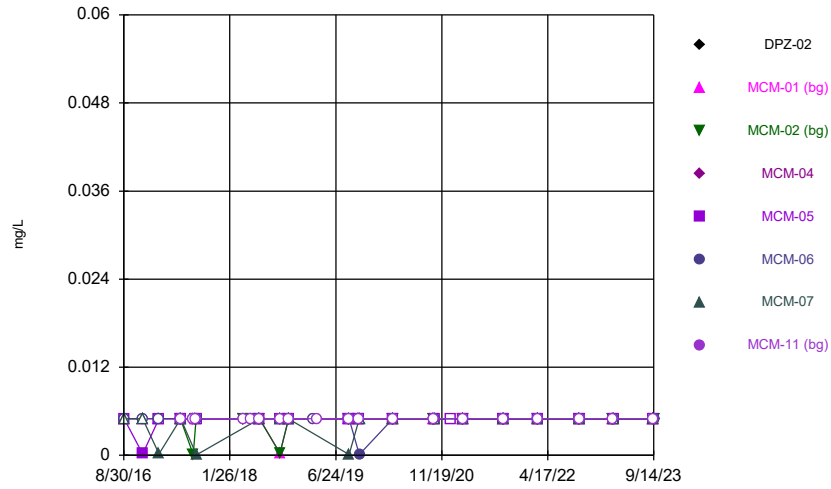
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Time Series



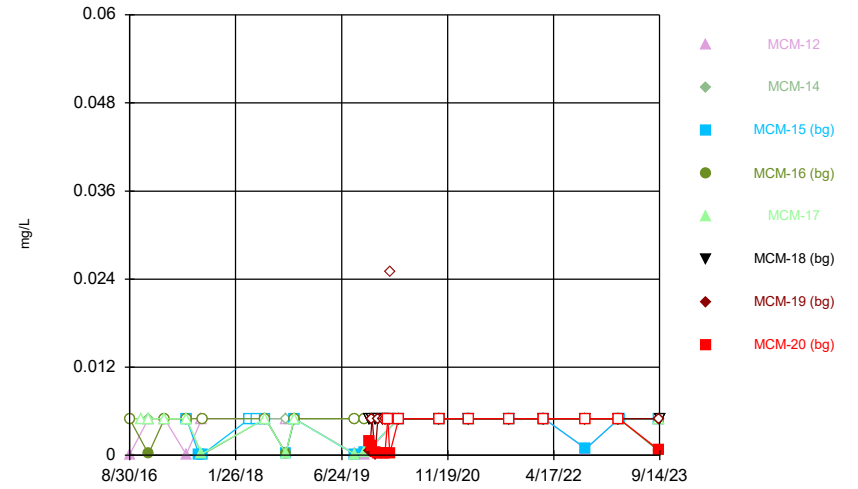
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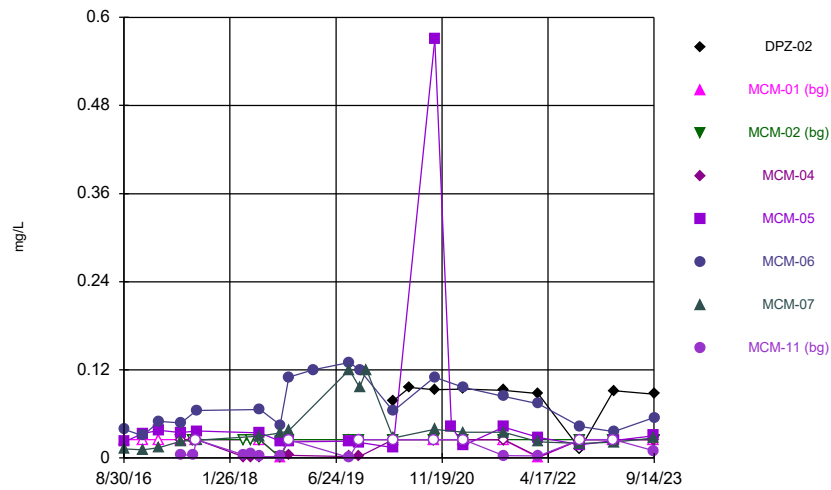
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Time Series



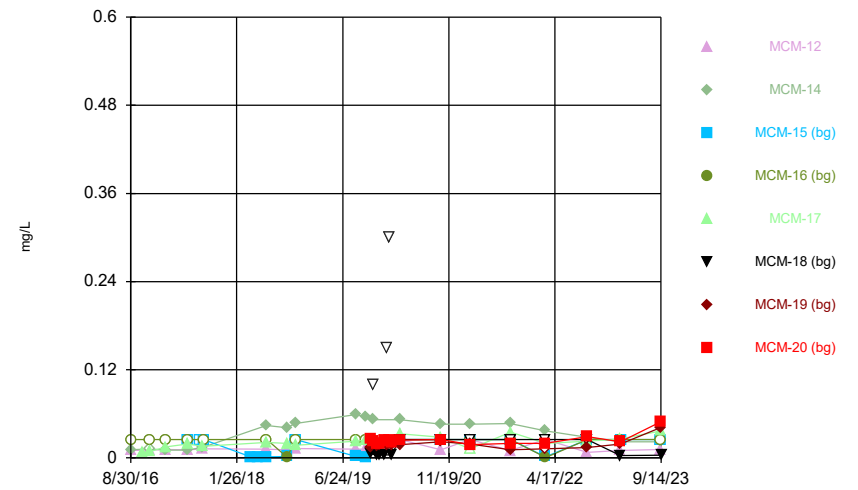
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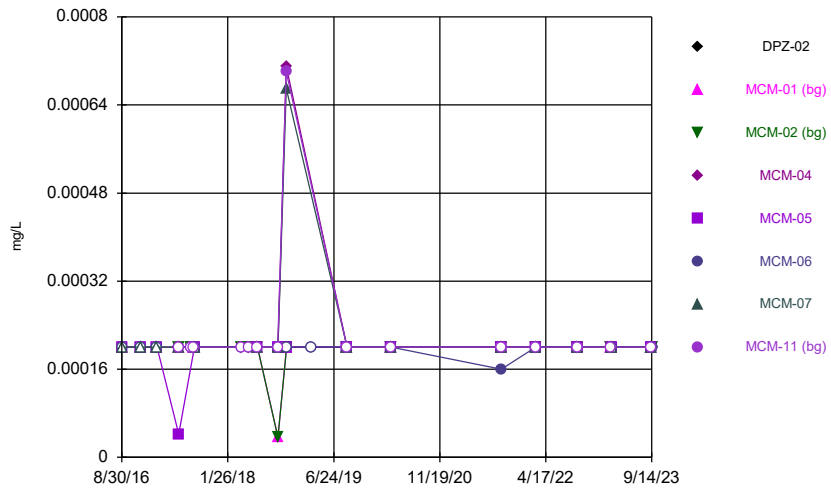
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Time Series

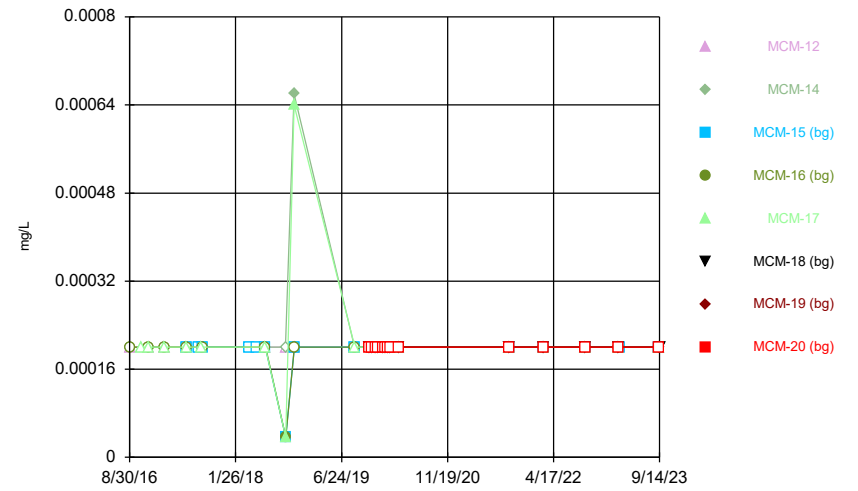


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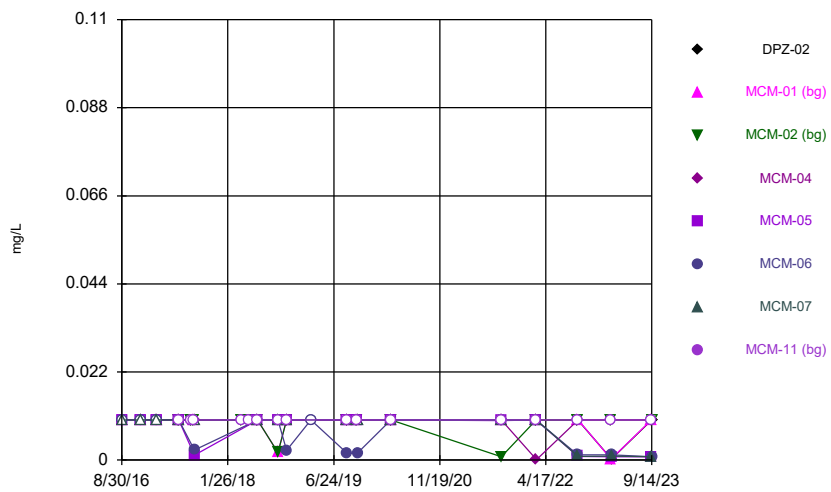
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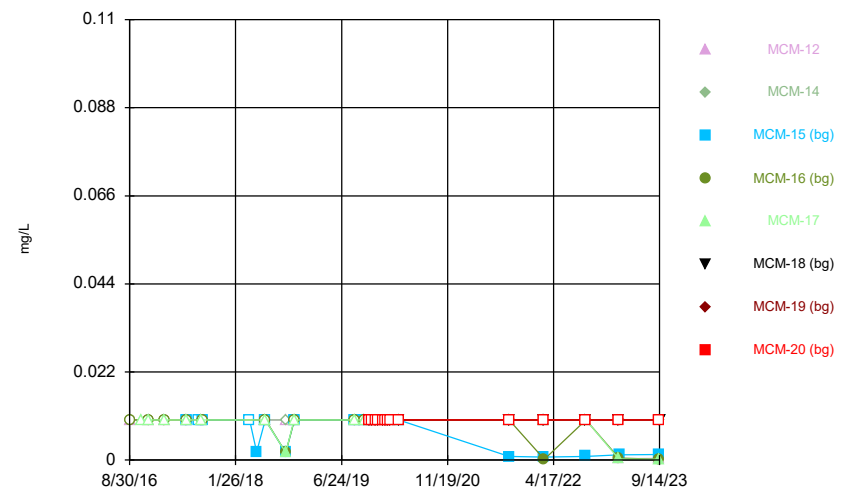
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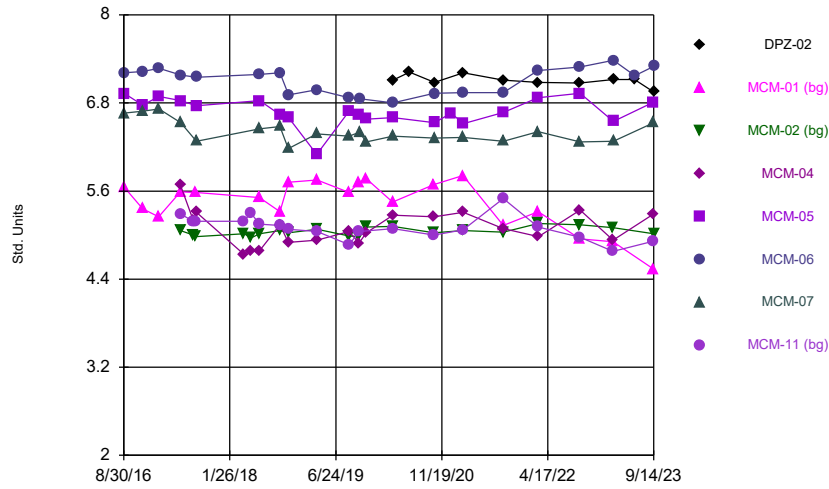
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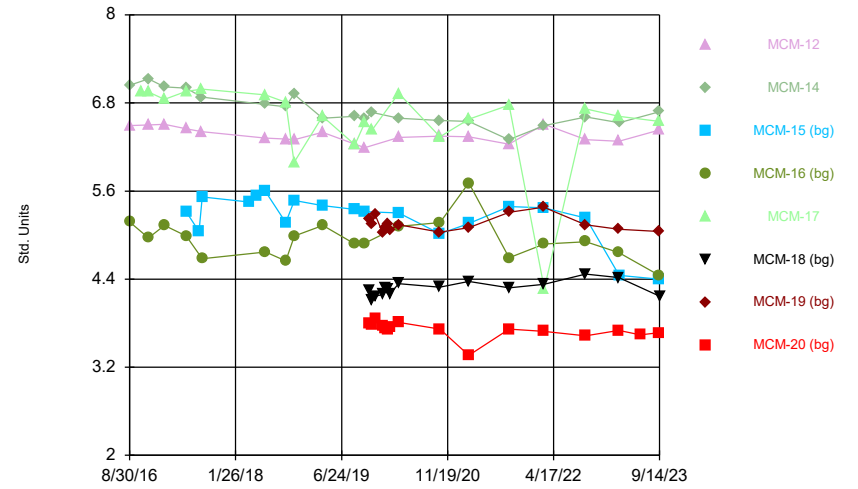


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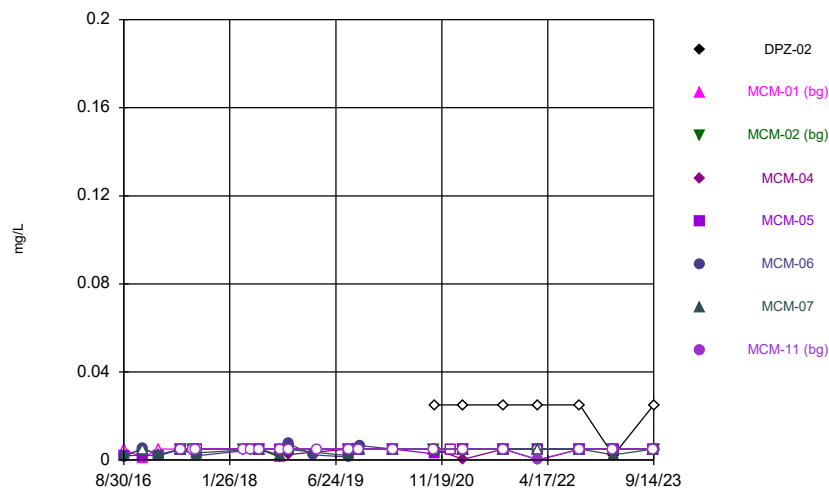
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Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



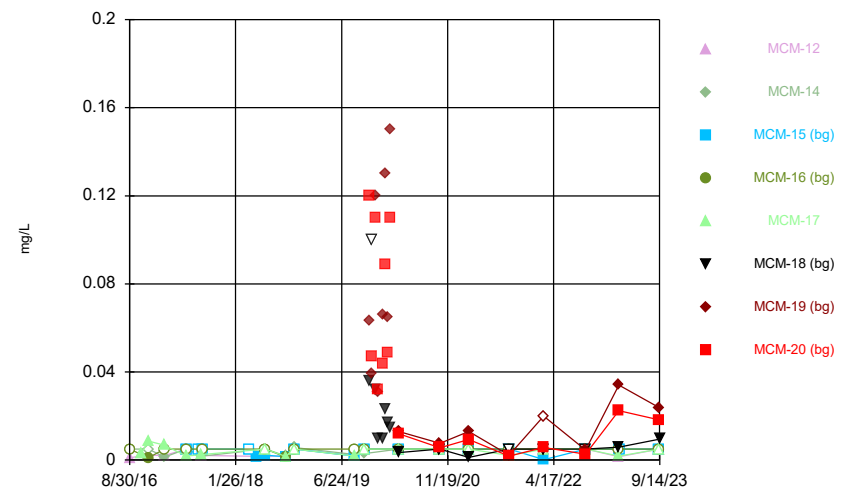
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Time Series



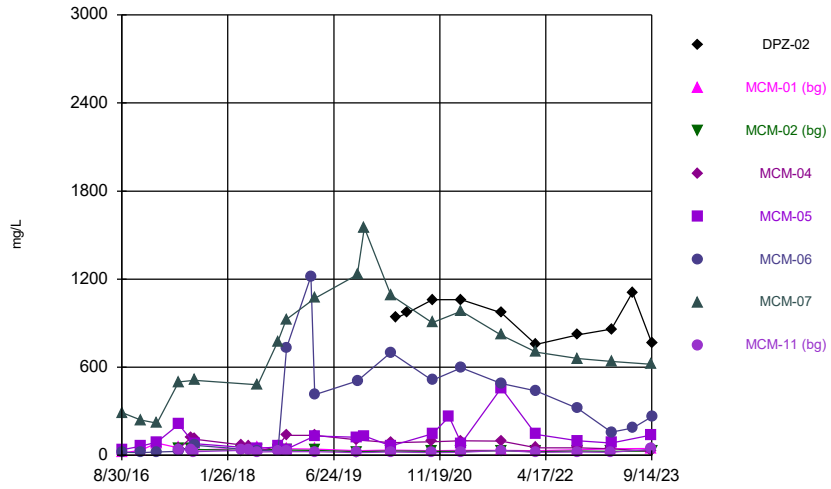
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Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



Constituent: Selenium Analysis Run 11/20/2023 12:44 PM
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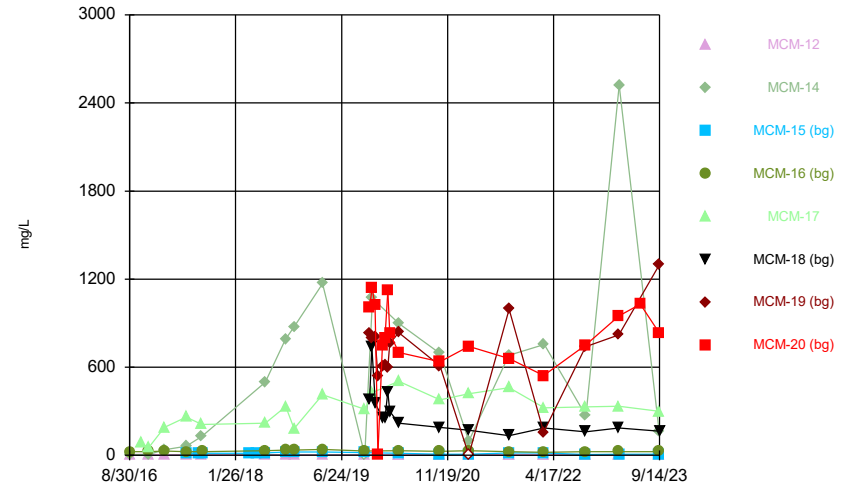
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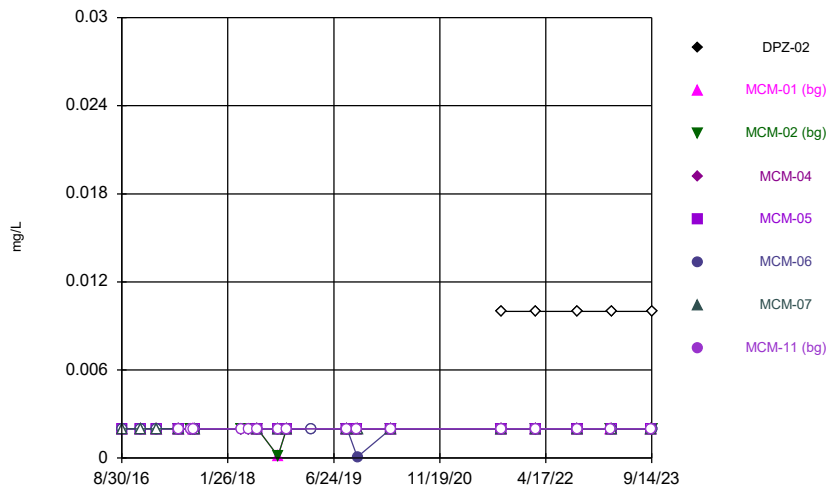
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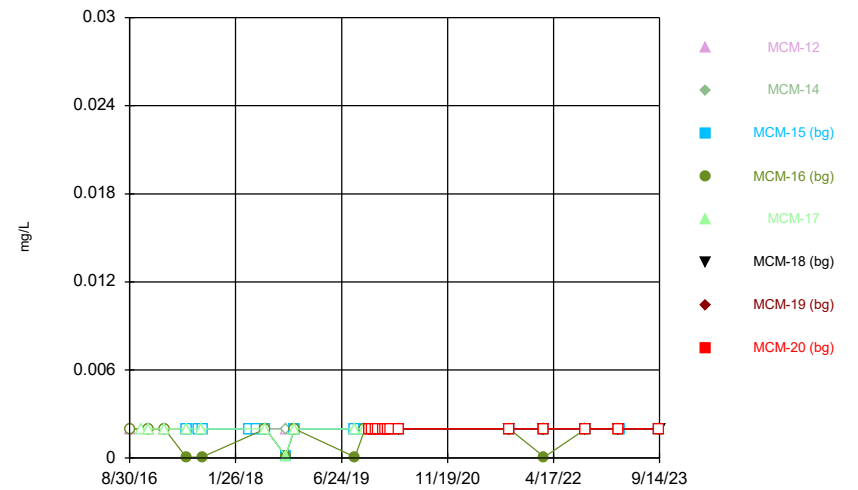
Time Series



Constituent: Thallium Analysis Run 11/20/2023 12:44 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

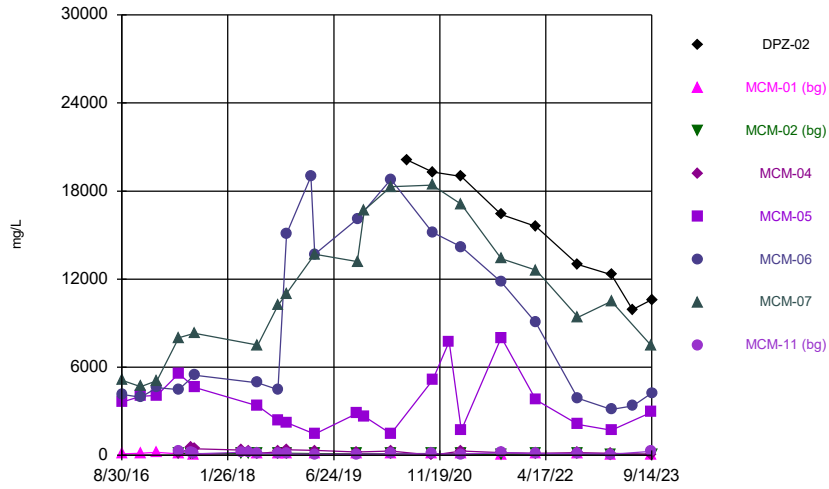
Hollow symbols indicate censored values.

Time Series



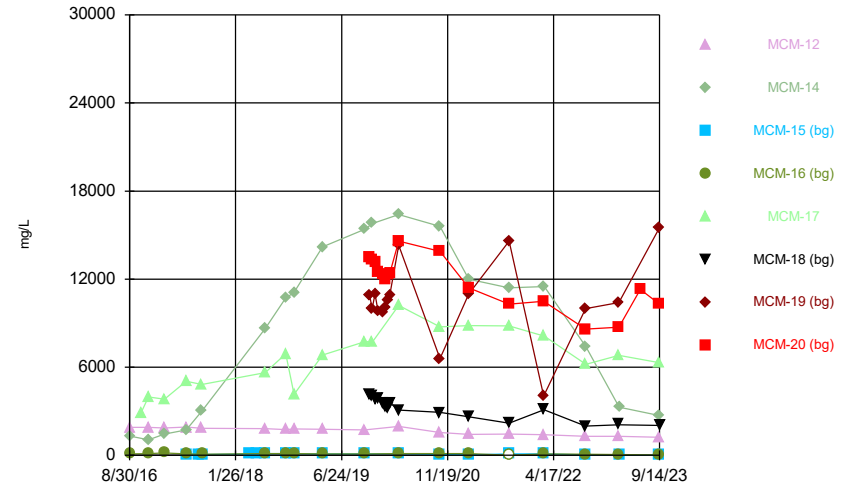
Constituent: Thallium Analysis Run 11/20/2023 12:44 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



Constituent: Total Dissolved Solids Analysis Run 11/20/2023 12:44 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



Constituent: Total Dissolved Solids Analysis Run 11/20/2023 12:44 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series

Constituent: Antimony (mg/L) Analysis Run 11/20/2023 12:45 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
3/1/2023		<0.003	<0.003	<0.003				<0.003
3/2/2023	<0.003				<0.003	<0.003	<0.003	
9/12/2023		<0.003			<0.003			
9/13/2023				<0.003			<0.003	<0.003
9/14/2023	<0.003		<0.003			<0.003		

Time Series

Constituent: Antimony (mg/L) Analysis Run 11/20/2023 12:45 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			
2/28/2023	<0.003				<0.003	<0.003	<0.003	<0.003
3/1/2023				<0.003				
3/2/2023		<0.003	<0.003					
9/12/2023	<0.003	<0.003	<0.003	<0.003				
9/13/2023					<0.003		<0.003	<0.003
9/14/2023						<0.003		

Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/20/2023 12:45 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			<0.005					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)	<0.005					
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			<0.005		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			<0.005					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	<0.005	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)	<0.005					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				
6/28/2022	0.025					0.17		
9/20/2022	0.021					0.18		

Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/20/2023 12:45 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)
9/21/2022		0.0057 (J)	<0.005	0.0017 (J)	0.0077		0.01	0.013
3/1/2023		0.00493 (J)	<0.005	0.00247 (J)				0.00868 (J)
3/2/2023	0.0202				0.00578 (J)	0.0764	0.014	
6/13/2023	0.0213							
6/14/2023						0.0607		
9/12/2023		0.00628			0.0113			
9/13/2023				0.00601			0.0117	0.0217
9/14/2023	0.0254		<0.005			0.0653		

Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/20/2023 12:45 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	<0.0063		0.0018 (J)				
10/25/2016					<0.0063			
11/30/2016	<0.01	<0.0063		<0.005	0.0072			
2/15/2017	<0.01	<0.0063		<0.005	0.0017 (J)			
5/31/2017	0.0007 (J)	0.0008 (J)			0.0018 (J)			
6/1/2017				<0.005				
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)	<0.005				
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	<0.01	<0.0063	0.0018 (J)	<0.005	<0.0063	0.0043 (J)	0.017	0.027
10/12/2020	<0.01					<0.005		
10/13/2020		<0.0063	0.0042 (J)	<0.005	<0.0063		0.0089	0.018
3/2/2021	<0.01	<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	<0.01	<0.0063						
9/14/2021			0.0035 (J)	<0.005	<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	<0.01	<0.0063		0.00024 (J)	<0.0063			
9/20/2022						0.0026 (J)	0.021	0.026
9/21/2022	<0.01	<0.0063	0.0044 (J)	<0.005	<0.0063			
2/28/2023	<0.01				0.00226 (J)	0.00273 (J)	0.0173	0.0166
3/1/2023				0.00223 (J)				
3/2/2023		0.00201 (J)	0.00756 (J)					
6/13/2023								0.0168

Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/20/2023 12:45 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)
9/12/2023	0.00234 (J)	0.00263 (J)	0.00677	<0.005				
9/13/2023					0.00283 (J)		0.0172	0.0182
9/14/2023						0.00374 (J)		

Time Series

Constituent: Barium (mg/L) Analysis Run 11/20/2023 12:45 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
3/1/2023		0.097 (J)	0.0806 (J)	0.031 (J)				0.0405 (J)
3/2/2023	0.0601 (J)				0.0133 (J)	0.0195 (J)	0.0982 (J)	
9/12/2023		0.128			0.0257			
9/13/2023				0.0358			0.0745	0.0794
9/14/2023	0.0583		0.075			0.0456		

Time Series

Constituent: Barium (mg/L) Analysis Run 11/20/2023 12:45 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			
2/28/2023	0.071 (J)				0.0828 (J)	0.105 (J)	0.0869 (J)	0.0928 (J)
3/1/2023				0.109 (J)				
3/2/2023		0.0356 (J)	0.0282 (J)					
9/12/2023	0.074	0.0306	0.0272	0.116				
9/13/2023					0.0706		0.097	0.101

Time Series

Constituent: Barium (mg/L) Analysis Run 11/20/2023 12:45 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)
9/14/2023						0.127		

Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/20/2023 12:45 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		<0.004						
8/31/2016					<0.0005	<0.0005	<0.0005	
11/30/2016		<0.004			<0.0005	<0.0005	<0.0005	
2/15/2017		<0.004						
2/16/2017					<0.0005	<0.0005	<0.0005	
5/31/2017			0.0002 (J)					7E-05 (J)
6/1/2017		9E-05 (J)		0.0001 (J)				
6/2/2017					<0.0005	<0.0005	<0.0005	
8/2/2017			0.0002 (J)	0.0003 (J)				0.0001 (J)
8/15/2017								9E-05 (J)
8/16/2017		<0.004	0.0002 (J)					
8/17/2017				0.0002 (J)	<0.0005	<0.0005	<0.0005	
4/4/2018				<0.0005				<0.0005
4/5/2018			<0.0005					
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)	<0.0005	<0.0005		
6/21/2018							<0.0005	
9/25/2018								0.0001 (J)
9/26/2018		9.2E-05 (J)	0.00017 (J)					
9/27/2018				0.00031 (J)	<0.0005	<0.0005	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)	<0.0005		
3/6/2019						<0.0005		
8/27/2019		9E-05 (J)		0.00032 (J)				
8/28/2019			0.00011 (J)		<0.0005	<0.0005	<0.0005	8.4E-05 (J)
10/15/2019				0.00035 (J)				
10/16/2019		<0.004	0.00013 (J)		<0.0005			9E-05 (J)
10/17/2019						<0.0005	7.8E-05 (J)	
3/26/2020		<0.004						
3/27/2020			<0.0005					<0.0005
3/28/2020				<0.0005	<0.0005	<0.0005	<0.0005	
10/12/2020								<0.0005
10/13/2020		<0.004	<0.0005	<0.0005				
10/14/2020						<0.0005	<0.0005	
10/15/2020	<0.0005				<0.0005			
1/4/2021					<0.0005			
3/3/2021		<0.004	<0.0005					<0.0005
3/4/2021	<0.0005			<0.0005	<0.0005	<0.0005	<0.0005	
9/14/2021	<0.0005	<0.004	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
3/1/2022	<0.0005				<0.0005	<0.0005		
3/2/2022		9.6E-05 (J)	0.00015				<0.0005	0.00011
3/3/2022				0.00025				
9/20/2022	<0.0005					<0.0005		
9/21/2022		<0.004	<0.0005	<0.0005	<0.0005		<0.0005	<0.0005
3/1/2023		<0.004	<0.0005	<0.0005				<0.0005
3/2/2023	<0.0005				<0.0005	<0.0005	<0.0005	
9/12/2023		0.000253 (J)			<0.0005			
9/13/2023				<0.0005			<0.0005	<0.0005
9/14/2023	<0.0005		<0.0005			<0.0005		

Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/20/2023 12:45 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)	<0.0005		0.0001 (J)				
10/25/2016					0.0004 (J)			
11/30/2016	0.0004 (J)	<0.0005		0.0002 (J)	0.0003 (J)			
2/15/2017	0.0004 (J)	<0.0005		<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			<0.0005					
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			<0.0005					
5/8/2018			0.00031 (J)					
6/19/2018	0.00065 (J)	<0.0005	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)	<0.0005	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	<0.0005	<0.0005	<0.0025	<0.002	0.004	0.011	0.018
10/12/2020	0.001 (J)					0.0041		
10/13/2020		<0.0005	<0.0005	<0.0025	<0.002		0.015	0.017
3/2/2021	<0.005	<0.0005	<0.0005					
3/3/2021				<0.0025	<0.002	0.003	0.015	0.014
9/13/2021	0.0011	<0.0005						
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)	<0.0005		0.00023	<0.002			
9/20/2022						0.003	0.017	0.02
9/21/2022	0.0011 (J)	<0.0005	<0.0005	<0.0025	0.00029 (J)			
2/28/2023	0.00135 (J)				0.000279 (J)	0.0029 (J)	0.0144	0.0155
3/1/2023				0.000223 (J)				
3/2/2023		<0.0005	0.000201 (J)					
9/12/2023	0.00137	<0.0005	<0.0005	0.000209 (J)				
9/13/2023					0.000249 (J)		0.00707	0.015

Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/20/2023 12:45 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)
9/14/2023						0.00267		

Time Series

Constituent: Boron (mg/L) Analysis Run 11/20/2023 12:45 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)
3/1/2023		0.091	0.115	0.108				0.0461
3/2/2023	1.82				0.511	0.961	1.25	
9/12/2023		0.101			0.42			
9/13/2023				0.047			1.21	0.0783

Time Series

Constituent: Boron (mg/L) Analysis Run 11/20/2023 12:45 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)
9/14/2023	1.61		0.102			0.807		

Time Series

Constituent: Boron (mg/L) Analysis Run 11/20/2023 12:45 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			
2/28/2023	1.23				1.78	0.185	0.707	0.723
3/1/2023				0.0669				
3/2/2023		0.738	0.0416					
9/12/2023	1.42	0.657	0.0393	0.0613				

Time Series

Constituent: Boron (mg/L) Analysis Run 11/20/2023 12:45 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)
9/13/2023					1.97		1.2	1.02
9/14/2023						0.229		

Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/20/2023 12:45 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
3/1/2023		<0.0025	<0.0025	<0.0025				<0.0025
3/2/2023	<0.0025				<0.0025	<0.0025	<0.0025	
9/12/2023		<0.0025			<0.0025			
9/13/2023				<0.0025			<0.0025	<0.0025
9/14/2023	<0.0025		<0.0025			<0.0025		

Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/20/2023 12:45 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			
2/28/2023	<0.0025				<0.0025	<0.0025	<0.0025	<0.0025
3/1/2023				<0.0025				
3/2/2023		<0.0025	<0.0025					
9/12/2023	<0.0025	<0.0025	<0.0025	<0.0025				
9/13/2023					<0.0025		<0.0025	<0.0025
9/14/2023						<0.0025		

Time Series

Constituent: Calcium (mg/L) Analysis Run 11/20/2023 12:45 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
3/1/2023		7.87	5.26	7.75				6.53
3/2/2023	234				25.9	36.1	194	

Time Series

Constituent: Calcium (mg/L) Analysis Run 11/20/2023 12:45 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)
9/12/2023		10.1			61.5			
9/13/2023				4.93			136	20.7
9/14/2023	158		6.64			83.1		

Time Series

Constituent: Calcium (mg/L) Analysis Run 11/20/2023 12:45 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			
2/28/2023	5.17				94.2	22.5	150	104
3/1/2023				4.74				
3/2/2023		48	1.41					
9/12/2023	4.98	55.3	0.953	4.48				

Time Series

Constituent: Calcium (mg/L) Analysis Run 11/20/2023 12:45 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)
9/13/2023					84.6		202	108
9/14/2023						21.1		

Time Series

Constituent: Chloride (mg/L) Analysis Run 11/20/2023 12:45 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
3/1/2023		14.9	21.8	45.6				17.7
3/2/2023	6860				853	1470	5450	
6/14/2023						1770		

Time Series

Constituent: Chloride (mg/L) Analysis Run 11/20/2023 12:45 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)
9/12/2023		10.7			1330			
9/13/2023				10.4			3690	98.5
9/14/2023	5380		21.1			2220		

Time Series

Constituent: Chloride (mg/L) Analysis Run 11/20/2023 12:45 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			
2/28/2023	518				2770	1250	5760	7930
3/1/2023				14.2				
3/2/2023		1810	4.88					
9/12/2023	326	1180	3.49	13.3				

Time Series

Constituent: Chloride (mg/L) Analysis Run 11/20/2023 12:45 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)
9/13/2023					2660		8600	5250
9/14/2023						1190		

Time Series

Constituent: Chromium (mg/L) Analysis Run 11/20/2023 12:45 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)
3/1/2023		<0.01	<0.01	<0.01				<0.01
3/2/2023	<0.01				<0.01	<0.01	<0.01	
9/12/2023		<0.01			<0.01			
9/13/2023				<0.01			<0.01	<0.01
9/14/2023	<0.01		<0.01			<0.01		

Time Series

Constituent: Chromium (mg/L) Analysis Run 11/20/2023 12:45 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)			
2/28/2023	0.00663 (J)				0.00623 (J)	<0.01	0.00575 (J)	0.00573 (J)
3/1/2023				<0.01				
3/2/2023		<0.01	<0.01					
9/12/2023	0.00703 (J)	<0.01	<0.01	<0.01				
9/13/2023					0.00608 (J)		0.00386 (J)	0.00673 (J)
9/14/2023						<0.01		

Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/20/2023 12:45 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
3/1/2023		<0.0025	0.000372 (J)	0.00256 (J)				<0.0025
3/2/2023	<0.0025				<0.0025	<0.0025	<0.0025	
9/12/2023		<0.0025			<0.0025			
9/13/2023				0.00341			<0.0025	<0.0025
9/14/2023	<0.0025		<0.0025			<0.0025		

Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/20/2023 12:45 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)			
2/28/2023	0.00052 (J)				<0.0025	<0.0025	<0.0025	0.0252 (J)
3/1/2023				<0.0025				
3/2/2023		<0.0025	<0.0025					
9/12/2023	0.000429 (J)	<0.0025	<0.0025	0.000301 (J)				
9/13/2023					<0.0025		<0.0025	0.0241

Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/20/2023 12:45 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)
9/14/2023						<0.0025		

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/20/2023 12:45 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
3/1/2023		1.18 (U)	0.439 (U)	5.05				2.35
3/2/2023	9.42				2.22	1.79	4.5	
9/12/2023		3.54			4.42			
9/13/2023				2.05			10.3	3.14
9/14/2023	11.7		3.14			3.61		

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/20/2023 12:45 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			
2/28/2023	2.29				5.48	7.34	12.4	22.6
3/1/2023				2.3				
3/2/2023		8.08	10.1					
9/12/2023	3.43	5.46	3.88	3.18				
9/13/2023					4.44		27.3	34.9

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/20/2023 12:45 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)
9/14/2023						4.91		

Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/20/2023 12:45 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
3/1/2023		<0.1	<0.1	<0.1				0.101 (J)
3/2/2023	<0.1				0.388 (J)	0.419 (J)	0.44 (J)	
6/14/2023						<0.1		

Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/20/2023 12:45 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)
9/12/2023		<0.1			0.374 (J)			
9/13/2023				0.0941 (J)			0.982 (J)	0.362 (J)
9/14/2023	<0.1		<0.1			0.246 (J)		

Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/20/2023 12:45 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			
2/28/2023	1.21 (J)				0.815 (J)	0.407 (J)	0.38 (J)	3.32 (J)
3/1/2023				0.0397 (J)				

Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/20/2023 12:45 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)
3/2/2023								
9/12/2023	1.32 (J)	0.188 (J)	0.0397 (J)	<0.1				
9/13/2023		<0.1	<0.1		1.46 (J)		<0.1	3.98 (J)
9/14/2023						0.251 (J)		

Time Series

Constituent: Lead (mg/L) Analysis Run 11/20/2023 12:45 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
3/1/2023		<0.005	<0.005	<0.005				<0.005
3/2/2023	<0.005				<0.005	<0.005	<0.005	
9/12/2023		<0.005			<0.005			
9/13/2023				<0.005			<0.005	<0.005
9/14/2023	<0.005		<0.005			<0.005		

Time Series

Constituent: Lead (mg/L) Analysis Run 11/20/2023 12:45 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	<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			
2/28/2023	<0.005				<0.005	<0.005	<0.005	<0.005
3/1/2023				<0.005				
3/2/2023		<0.005	<0.005					
9/12/2023	<0.005	<0.005	<0.005	0.000563 (J)				
9/13/2023					<0.005		<0.005	0.000678 (J)

Time Series

Constituent: Lead (mg/L) Analysis Run 11/20/2023 12:45 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)
9/14/2023						<0.005		

Time Series

Constituent: Lithium (mg/L) Analysis Run 11/20/2023 12:45 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
3/1/2023		<0.025	<0.025	<0.025				<0.025
3/2/2023	0.0919				0.0237 (J)	0.0361 (J)	0.0217 (J)	
9/12/2023		<0.025			0.0301			
9/13/2023				<0.025			0.027	0.00978 (J)

Time Series

Constituent: Lithium (mg/L) Analysis Run 11/20/2023 12:45 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)
9/14/2023	0.087		<0.025			0.0551		

Time Series

Constituent: Lithium (mg/L) Analysis Run 11/20/2023 12:45 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)			
2/28/2023	0.0104 (J)				0.0257 (J)	0.00327 (J)	0.019 (J)	0.0221 (J)
3/1/2023				<0.025				
3/2/2023		0.0218 (J)	<0.025					
9/12/2023	0.0115	0.0222	<0.025	<0.025				

Time Series

Constituent: Lithium (mg/L) Analysis Run 11/20/2023 12:45 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)
9/13/2023					0.037		0.0415	0.0493
9/14/2023						0.00366 (J)		

Time Series

Constituent: Mercury (mg/L) Analysis Run 11/20/2023 12:45 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
3/1/2023		<0.0002	<0.0002	<0.0002				<0.0002
3/2/2023	<0.0002				<0.0002	<0.0002	<0.0002	
9/12/2023		<0.0002			<0.0002			
9/13/2023				<0.0002			<0.0002	<0.0002
9/14/2023	<0.0002		<0.0002			<0.0002		

Time Series

Constituent: Mercury (mg/L) Analysis Run 11/20/2023 12:45 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			
2/28/2023	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
3/1/2023				<0.0002				
3/2/2023		<0.0002	<0.0002					
9/12/2023	<0.0002	<0.0002	<0.0002	<0.0002				
9/13/2023					<0.0002		<0.0002	<0.0002
9/14/2023						<0.0002		

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/20/2023 12:45 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
3/1/2023		0.000258 (J)	<0.01	<0.01				<0.01
3/2/2023	0.000245 (J)				0.000852 (J)	0.00131 (J)	0.000963 (J)	
9/12/2023		<0.01			0.000809 (J)			
9/13/2023				<0.01			0.000847 (J)	<0.01
9/14/2023	<0.01		<0.01			0.000839 (J)		

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/20/2023 12:45 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			
2/28/2023	0.000362 (J)				0.000313 (J)	<0.01	<0.01	<0.01
3/1/2023				0.000517 (J)				
3/2/2023		<0.01	0.00133 (J)					
9/12/2023	0.000423 (J)	<0.01	0.00141	0.00023 (J)				
9/13/2023					0.000217 (J)		<0.01	<0.01
9/14/2023						<0.01		

Time Series

Constituent: pH, field (Std. Units) Analysis Run 11/20/2023 12:45 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
3/1/2023		4.91	5.1	4.93				4.78
3/2/2023	7.12				6.55	7.38	6.28	

Time Series

Constituent: pH, field (Std. Units) Analysis Run 11/20/2023 12:45 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)
6/13/2023	7.12							
6/14/2023						7.17		
9/12/2023		4.54			6.81			
9/13/2023				5.29			6.53	4.92
9/14/2023	6.95		5.02			7.3		

Time Series

Constituent: pH, field (Std. Units) Analysis Run 11/20/2023 12:45 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)
9/12/2023	6.43	6.68	4.4	4.45				
9/13/2023					6.55		5.05	3.67
9/14/2023						4.17		

Time Series

Constituent: Selenium (mg/L) Analysis Run 11/20/2023 12:45 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	<0.025				0.0028 (J)			
1/4/2021					<0.005			
3/3/2021		<0.005	<0.005					<0.005
3/4/2021	<0.025			0.00038 (J)	<0.005	<0.005	<0.005	
9/14/2021	<0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/1/2022	<0.025				<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	<0.025					<0.005		
9/21/2022		<0.005	<0.005	<0.005	<0.005		<0.005	<0.005
3/1/2023		<0.005	<0.005	<0.005				<0.005
3/2/2023	0.00205 (J)				<0.005	<0.005	0.00238 (J)	
9/12/2023		<0.005			<0.005			
9/13/2023				<0.005			<0.005	<0.005
9/14/2023	<0.025		<0.005			<0.005		

Time Series

Constituent: Selenium (mg/L) Analysis Run 11/20/2023 12:45 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						<0.1		
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			
2/28/2023	0.00157 (J)				0.00184 (J)	0.00583 (J)	0.034 (J)	0.0225 (J)
3/1/2023				<0.005				
3/2/2023		<0.005	<0.005					
9/12/2023	<0.005	<0.005	<0.005	<0.005				
9/13/2023					<0.005		0.0237	0.0182

Time Series

Constituent: Selenium (mg/L) Analysis Run 11/20/2023 12:45 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)
9/14/2023						0.00948		

Time Series

Constituent: Sulfate (mg/L) Analysis Run 11/20/2023 12:45 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
3/1/2023		45.3	27.4	44.2				21.4
3/2/2023	859				84.2	157	640	
6/13/2023	1110							

Time Series

Constituent: Sulfate (mg/L) Analysis Run 11/20/2023 12:45 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)
6/14/2023						187		
9/12/2023		47.5			139			
9/13/2023				27.1			620	42
9/14/2023	767		28.8			263		

Time Series

Constituent: Sulfate (mg/L) Analysis Run 11/20/2023 12:45 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			
2/28/2023	1.33				334	186	820	950
3/1/2023				25.8				
3/2/2023		2520	8.12					
6/13/2023								1030

Time Series

Constituent: Sulfate (mg/L) Analysis Run 11/20/2023 12:45 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)
9/12/2023	1.18	160	6.48	25.2				
9/13/2023					300		1300	832
9/14/2023						165		

Time Series

Constituent: Thallium (mg/L) Analysis Run 11/20/2023 12:45 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		<0.002						
8/31/2016					<0.002	<0.002	<0.002	
11/30/2016		<0.002			<0.002	<0.002	<0.002	
2/15/2017		<0.002						
2/16/2017					<0.002	<0.002	<0.002	
5/31/2017			<0.002					<0.002
6/1/2017		<0.002		<0.002				
6/2/2017					<0.002	<0.002	<0.002	
8/2/2017			<0.002	<0.002				<0.002
8/15/2017								<0.002
8/16/2017		<0.002	<0.002					
8/17/2017				<0.002	<0.002	<0.002	<0.002	
4/4/2018				<0.002				<0.002
4/5/2018			<0.002					
5/8/2018				<0.002				<0.002
5/9/2018			<0.002					
6/19/2018		<0.002	<0.002					<0.002
6/20/2018				<0.002	<0.002	<0.002		
6/21/2018							<0.002	
9/25/2018								<0.002
9/26/2018		0.00014	0.00014					
9/27/2018				<0.002	<0.002	<0.002	<0.002	
11/6/2018				<0.002			<0.002	<0.002
11/7/2018		<0.002	<0.002		<0.002	<0.002		
3/6/2019						<0.002		
8/27/2019		<0.002		<0.002				
8/28/2019			<0.002		<0.002	<0.002	<0.002	<0.002
10/15/2019				<0.002				
10/16/2019		<0.002	<0.002		<0.002			<0.002
10/17/2019						7.6E-05 (J)	<0.002	
3/26/2020		<0.002						
3/27/2020			<0.002					<0.002
3/28/2020				<0.002	<0.002	<0.002	<0.002	
9/14/2021	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
3/1/2022	<0.01				<0.002	<0.002		
3/2/2022		<0.002	<0.002				<0.002	<0.002
3/3/2022				<0.002				
9/20/2022	<0.01					<0.002		
9/21/2022		<0.002	<0.002	<0.002	<0.002		<0.002	<0.002
3/1/2023		<0.002	<0.002	<0.002				<0.002
3/2/2023	<0.01				<0.002	<0.002	<0.002	
9/12/2023		<0.002			<0.002			
9/13/2023				<0.002			<0.002	<0.002
9/14/2023	<0.01		<0.002			<0.002		

Time Series

Constituent: Thallium (mg/L) Analysis Run 11/20/2023 12:45 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	<0.002	<0.002		<0.002				
10/25/2016					<0.002			
11/30/2016	<0.002	<0.002		<0.002	<0.002			
2/15/2017	<0.002	<0.002		<0.002	<0.002			
5/31/2017	<0.002	<0.002			<0.002			
6/1/2017				6E-05 (J)				
6/2/2017			<0.002					
8/2/2017			<0.002					
8/15/2017	<0.002				<0.002			
8/16/2017		<0.002						
8/17/2017			<0.002	7E-05 (J)				
4/4/2018			<0.002					
5/8/2018			<0.002					
6/19/2018	<0.002	<0.002	<0.002		<0.002			
6/20/2018				<0.002				
9/25/2018	<0.002	<0.002						
9/26/2018			0.00014	0.00014	0.00014			
11/6/2018		<0.002			<0.002			
11/7/2018	<0.002		<0.002	<0.002				
8/26/2019		<0.002						
8/27/2019	<0.002		<0.002	6.6E-05 (J)	<0.002			
10/15/2019	<0.002	<0.002	<0.002					
10/16/2019				<0.002	<0.002			
11/7/2019						<0.002	<0.002	<0.002
11/18/2019						<0.002		
11/19/2019							<0.002	<0.002
12/4/2019							<0.002	<0.002
12/5/2019						<0.002		
12/17/2019							<0.002	
12/18/2019						<0.002		<0.002
1/8/2020							<0.002	<0.002
1/9/2020						<0.002		
1/21/2020						<0.002	<0.002	<0.002
2/4/2020						<0.002	<0.002	<0.002
2/13/2020						<0.002	<0.002	<0.002
3/27/2020	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
9/13/2021	<0.002	<0.002						
9/14/2021			<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
3/1/2022							<0.002	<0.002
3/2/2022			<0.002			<0.002		
3/3/2022	<0.002	<0.002		6.6E-05 (J)	<0.002			
9/20/2022						<0.002	<0.002	<0.002
9/21/2022	<0.002	<0.002	<0.002	<0.002	<0.002			
2/28/2023	<0.002				<0.002	<0.002	<0.002	<0.002
3/1/2023				<0.002				
3/2/2023		<0.002	<0.002					
9/12/2023	<0.002	<0.002	<0.002	<0.002				
9/13/2023					<0.002		<0.002	<0.002
9/14/2023						<0.002		

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/20/2023 12:45 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
3/1/2023		78	73	142				67
3/2/2023	12300				1710	3120	10500	
6/13/2023	9920							
6/14/2023						3370		

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/20/2023 12:45 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)
9/12/2023		80			2940			
9/13/2023				51			7440	274
9/14/2023	10600		76			4240		

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/20/2023 12:45 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			
2/28/2023	1290				6810	2090	10400	8720
3/1/2023				56				
3/2/2023		3280	35					
6/13/2023								11300

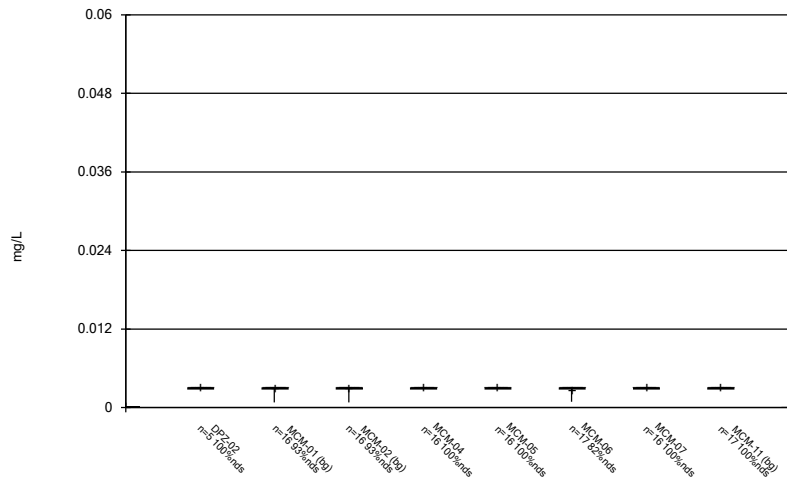
Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/20/2023 12:45 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)
9/12/2023	1230	2720	20	42				
9/13/2023					6310		15500	10300
9/14/2023						2040		

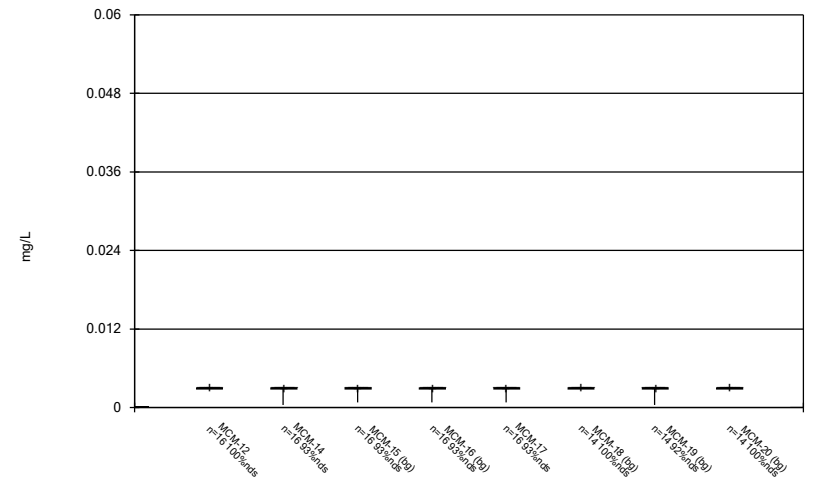
FIGURE B.

Box & Whiskers Plot



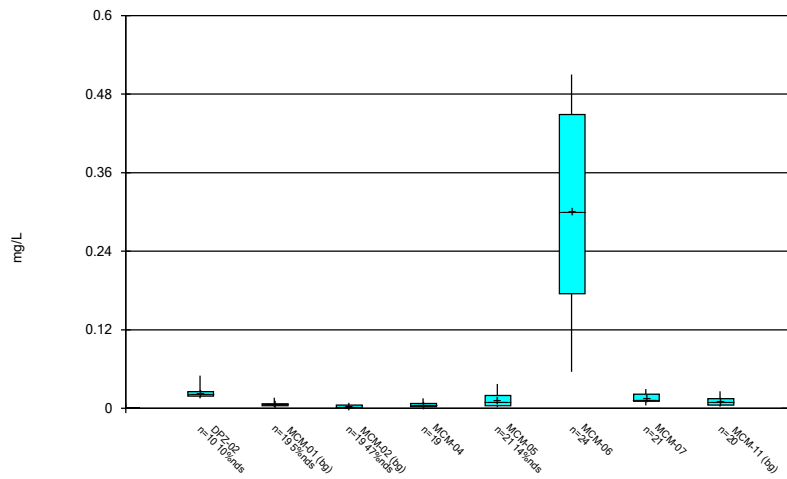
Constituent: Antimony Analysis Run 11/20/2023 12:47 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



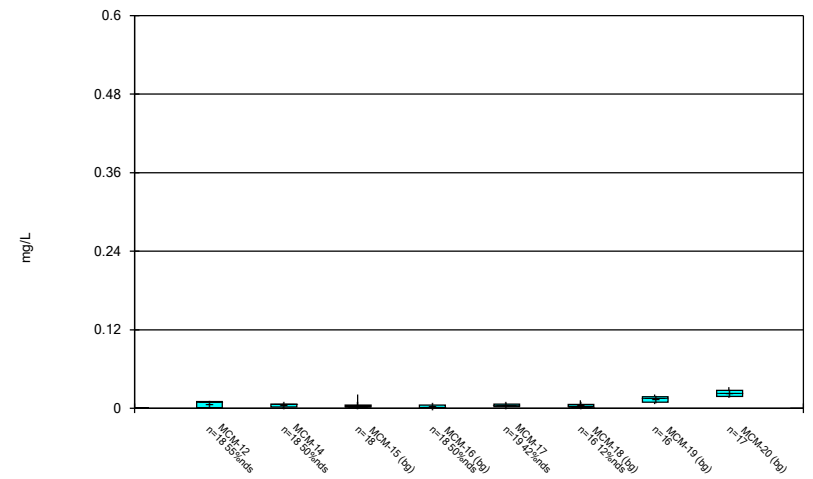
Constituent: Antimony Analysis Run 11/20/2023 12:47 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



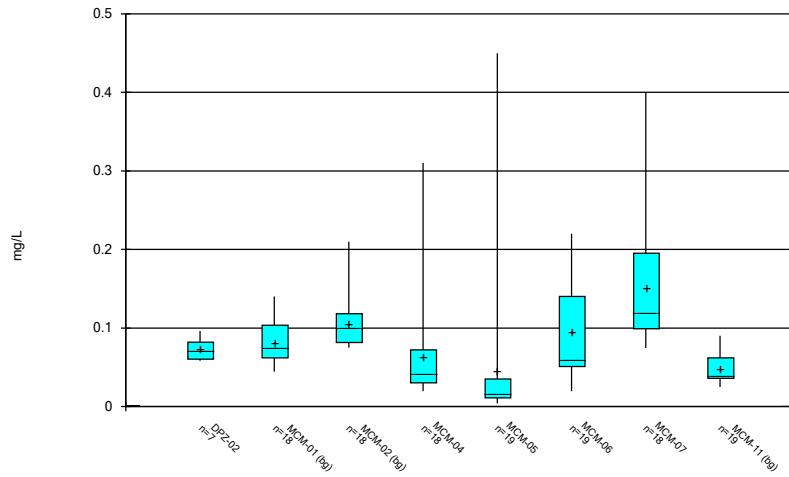
Constituent: Arsenic Analysis Run 11/20/2023 12:47 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



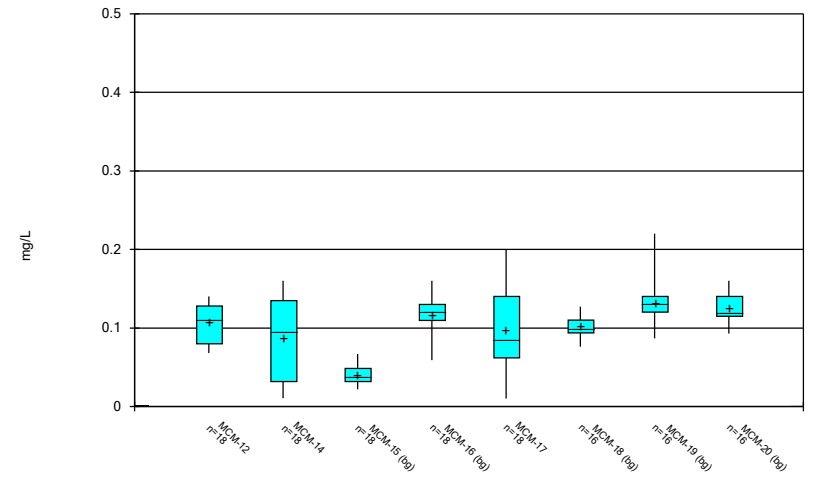
Constituent: Arsenic Analysis Run 11/20/2023 12:47 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



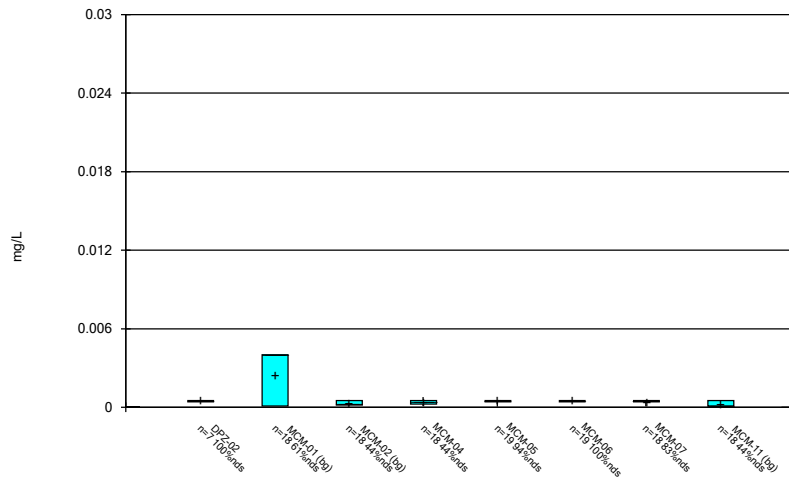
Constituent: Barium Analysis Run 11/20/2023 12:47 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



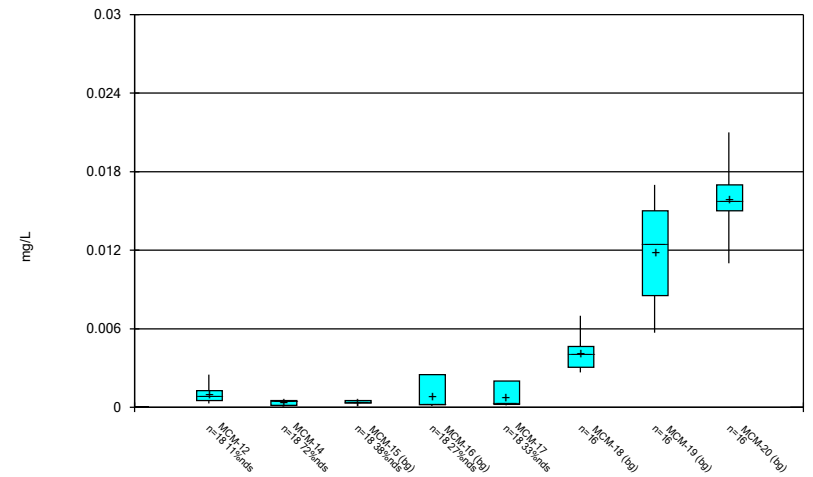
Constituent: Barium Analysis Run 11/20/2023 12:47 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



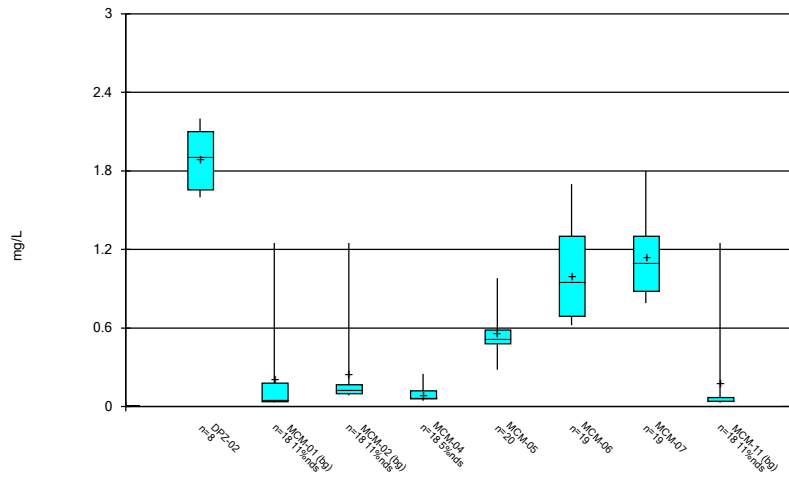
Constituent: Beryllium Analysis Run 11/20/2023 12:47 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



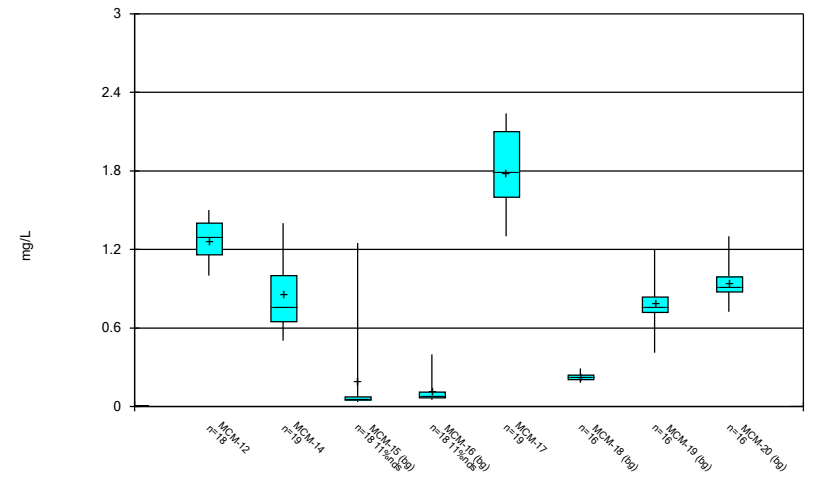
Constituent: Beryllium Analysis Run 11/20/2023 12:47 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



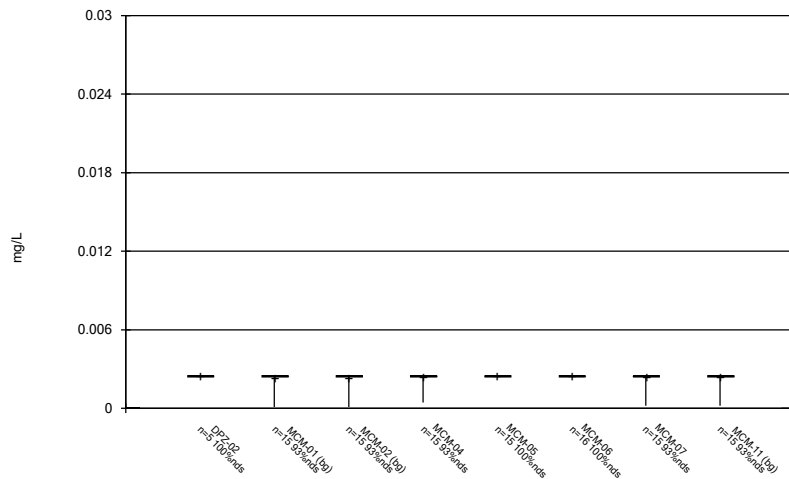
Constituent: Boron Analysis Run 11/20/2023 12:47 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



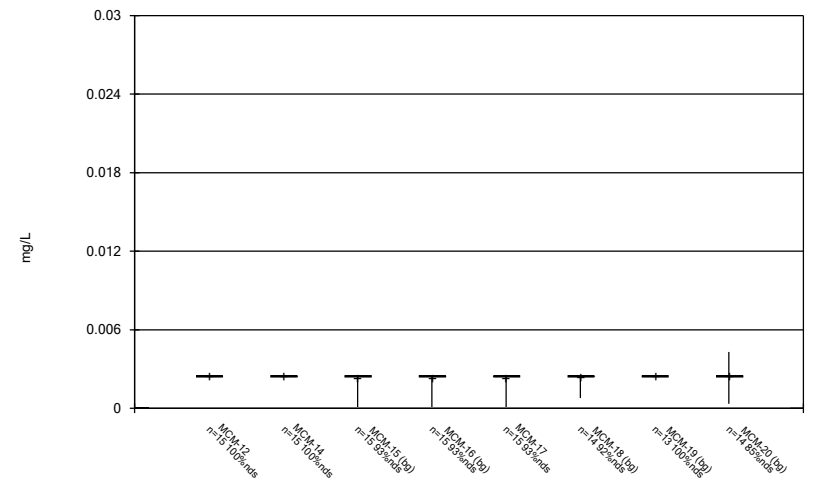
Constituent: Boron Analysis Run 11/20/2023 12:47 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



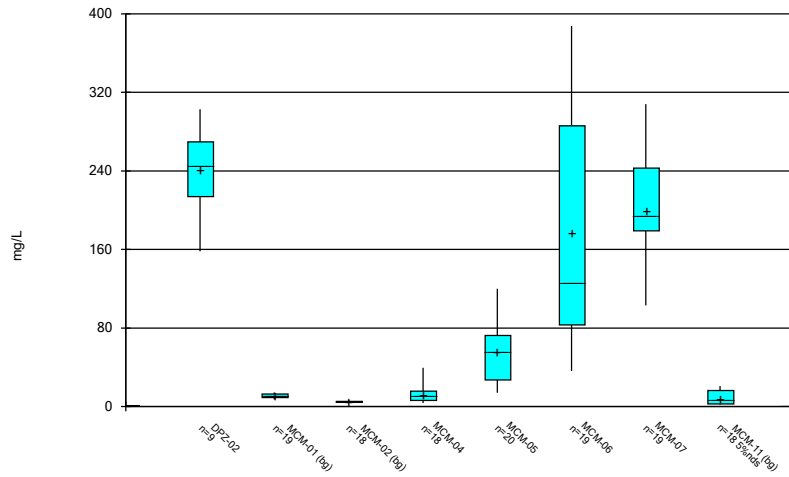
Constituent: Cadmium Analysis Run 11/20/2023 12:47 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



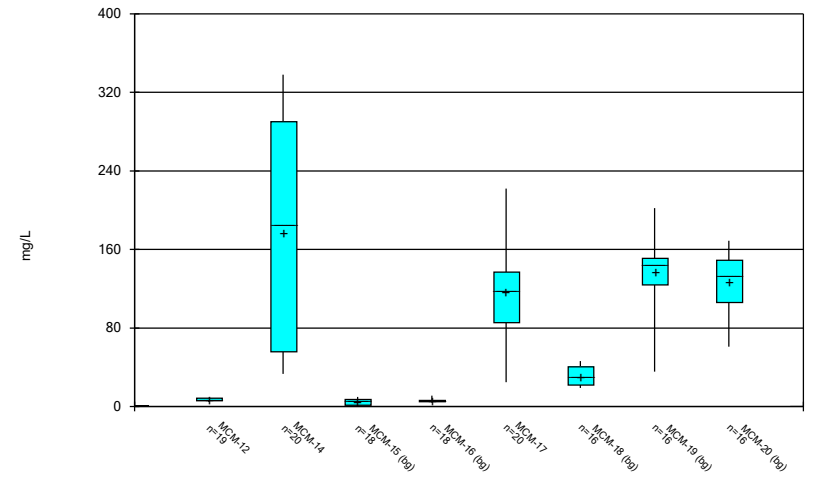
Constituent: Cadmium Analysis Run 11/20/2023 12:47 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



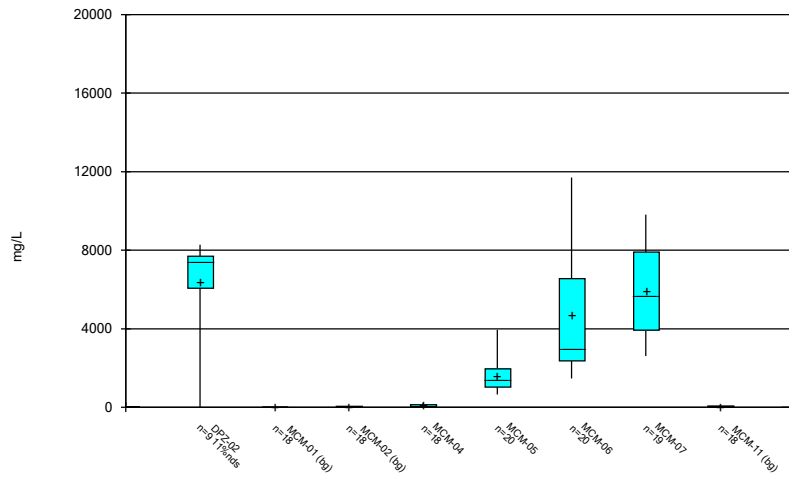
Constituent: Calcium Analysis Run 11/20/2023 12:47 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



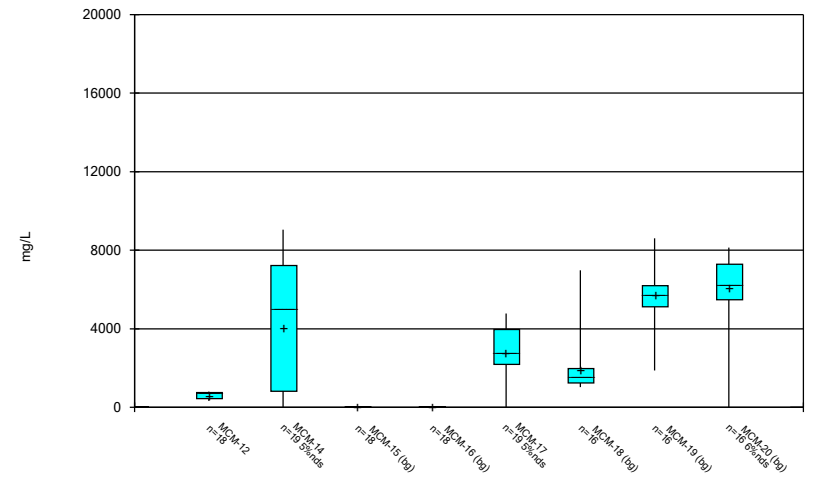
Constituent: Calcium Analysis Run 11/20/2023 12:47 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



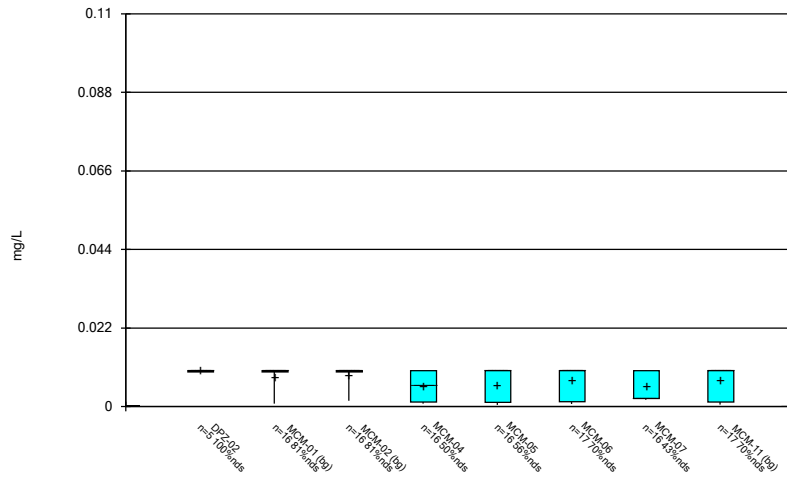
Constituent: Chloride Analysis Run 11/20/2023 12:47 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



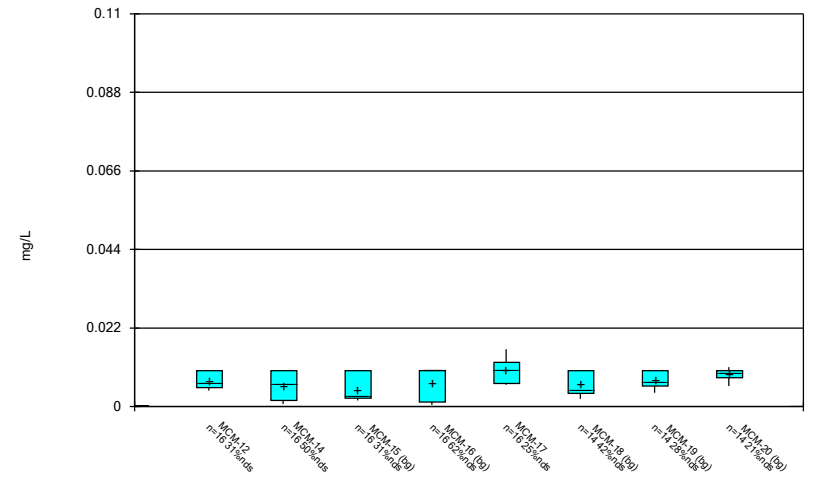
Constituent: Chloride Analysis Run 11/20/2023 12:47 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



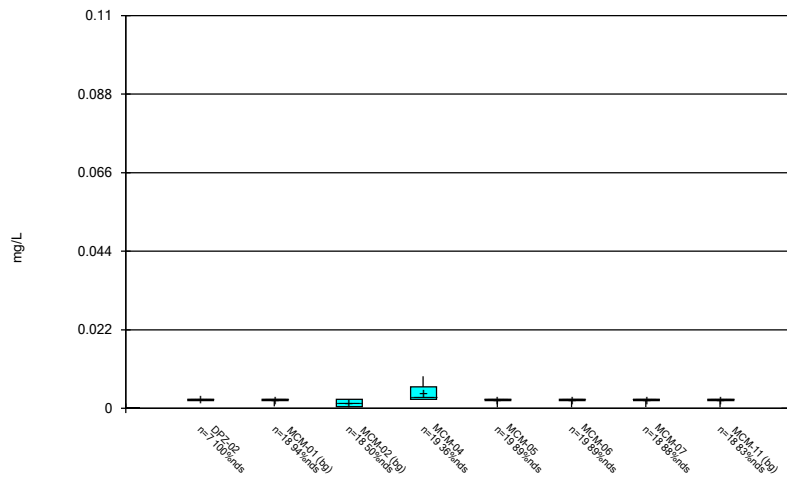
Constituent: Chromium Analysis Run 11/20/2023 12:47 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



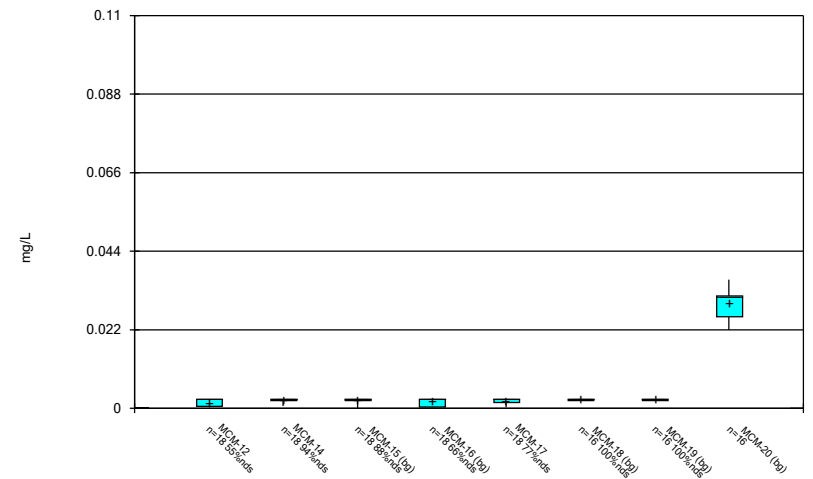
Constituent: Chromium Analysis Run 11/20/2023 12:47 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



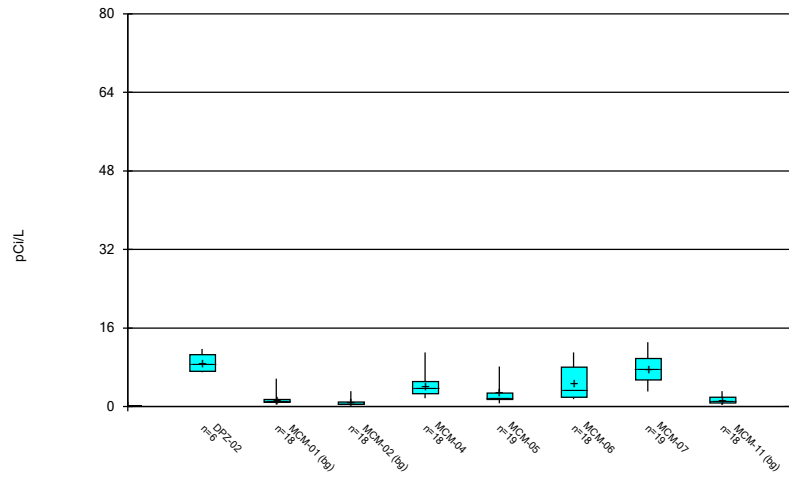
Constituent: Cobalt Analysis Run 11/20/2023 12:47 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



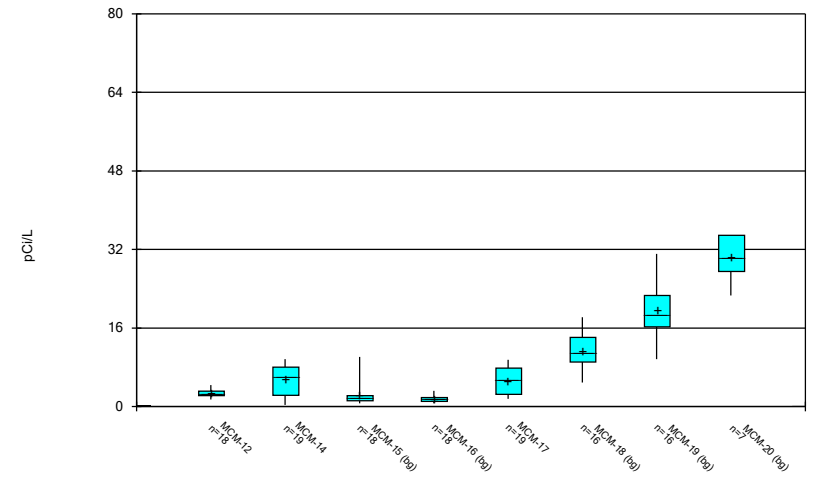
Constituent: Cobalt Analysis Run 11/20/2023 12:47 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



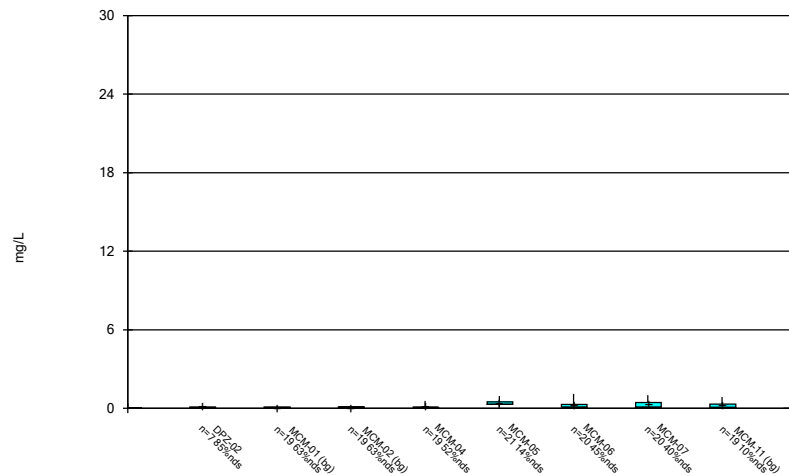
Constituent: Combined Radium 226 + 228 Analysis Run 11/20/2023 12:47 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



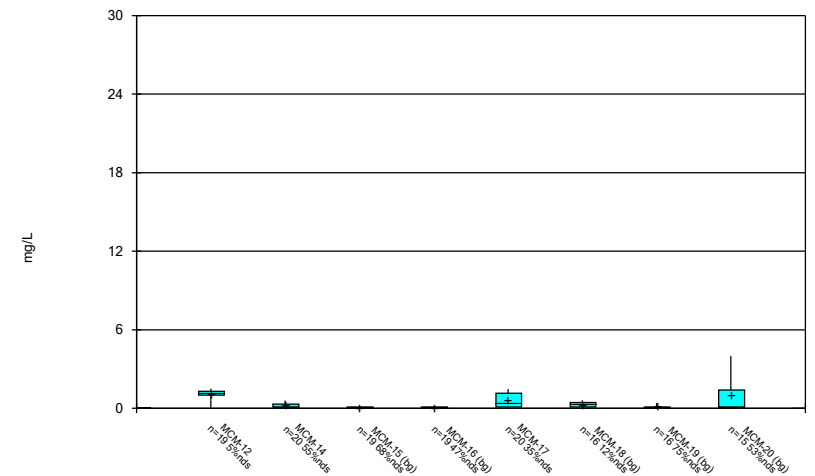
Constituent: Combined Radium 226 + 228 Analysis Run 11/20/2023 12:47 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



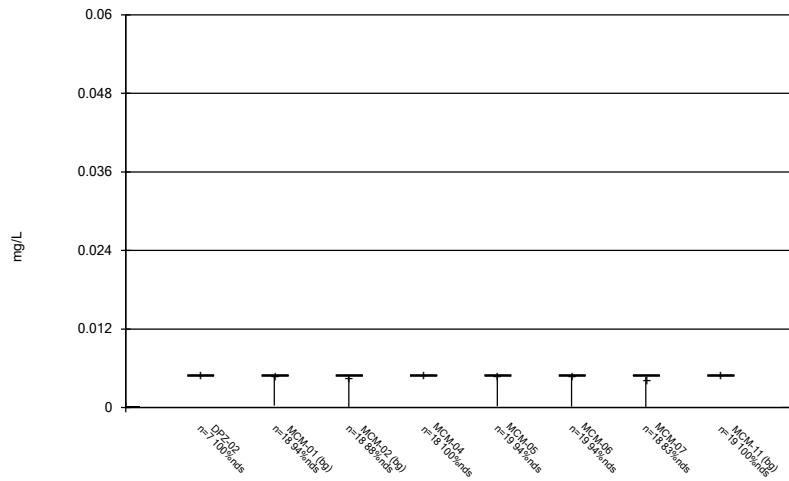
Constituent: Fluoride Analysis Run 11/20/2023 12:47 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



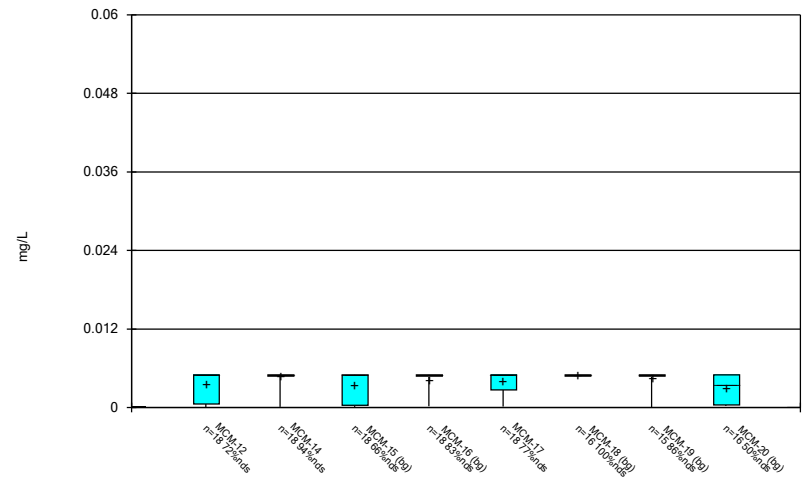
Constituent: Fluoride Analysis Run 11/20/2023 12:47 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



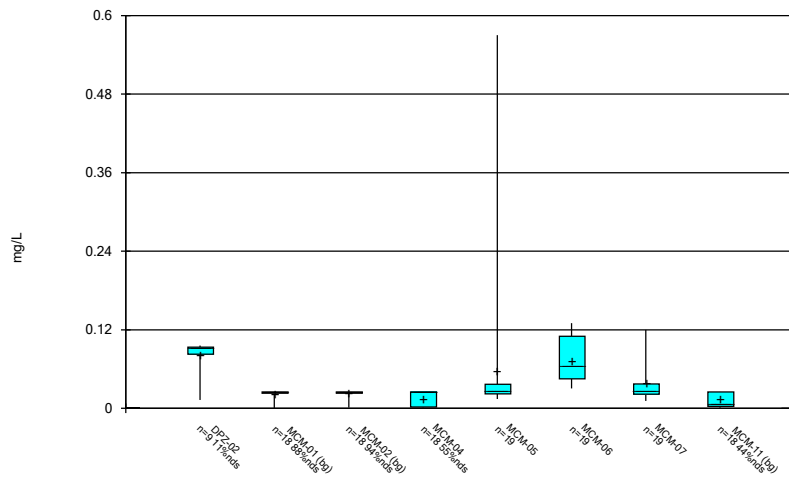
Constituent: Lead Analysis Run 11/20/2023 12:47 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



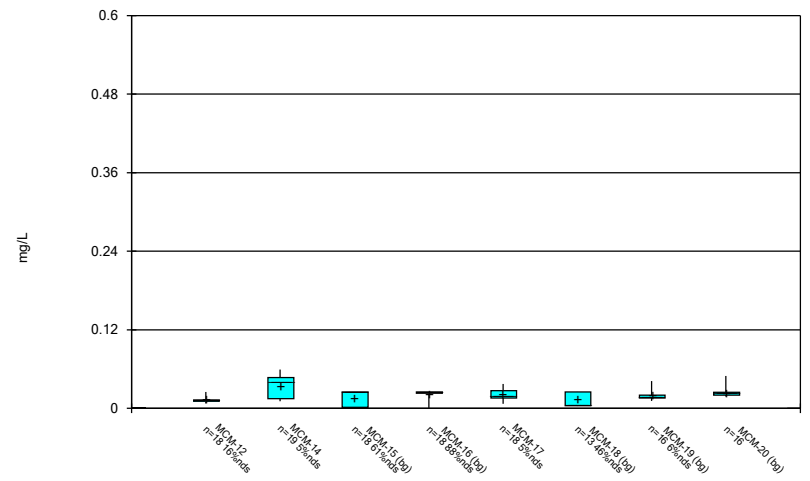
Constituent: Lead Analysis Run 11/20/2023 12:47 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



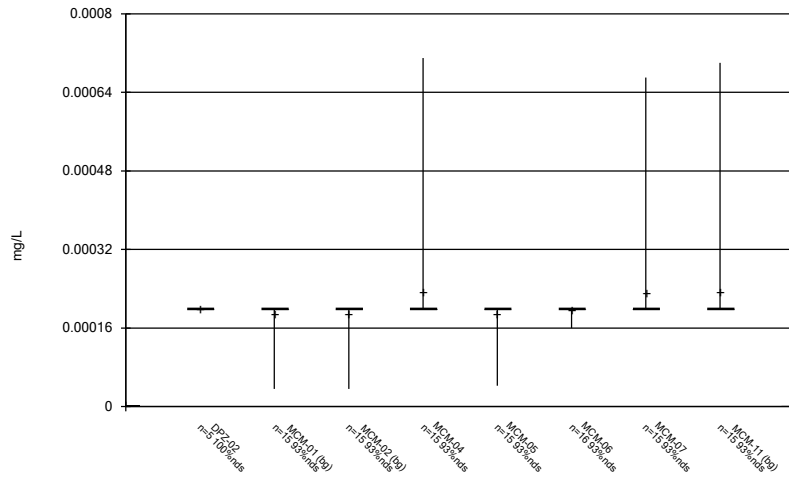
Constituent: Lithium Analysis Run 11/20/2023 12:47 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



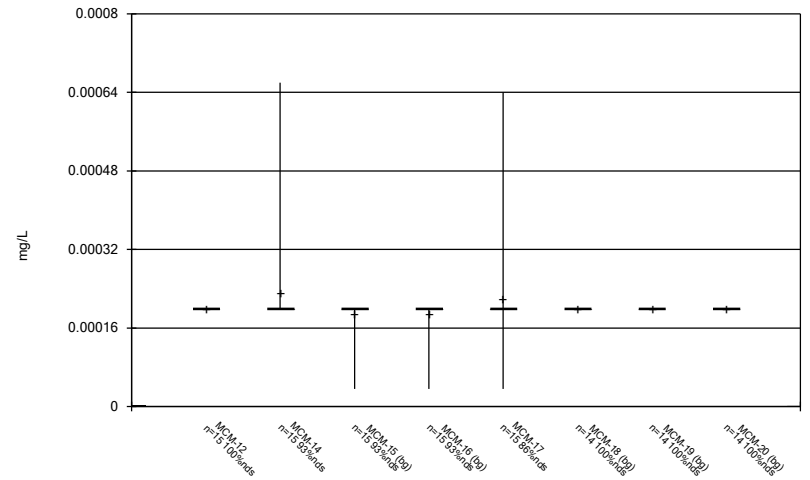
Constituent: Lithium Analysis Run 11/20/2023 12:47 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



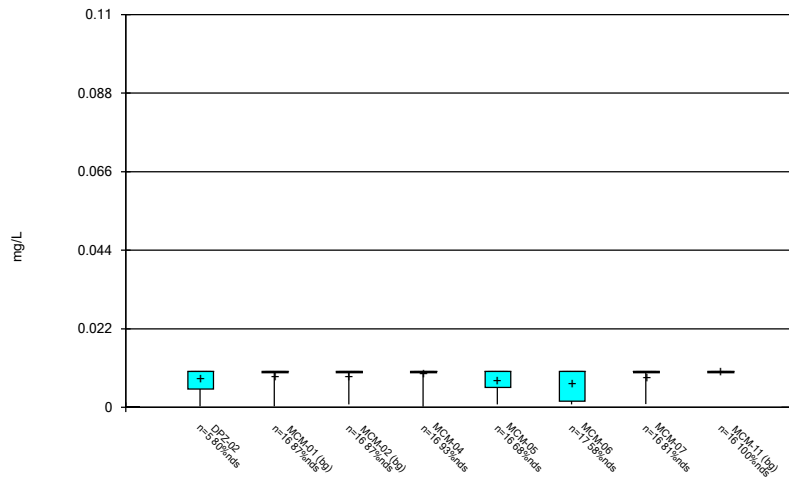
Constituent: Mercury Analysis Run 11/20/2023 12:47 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



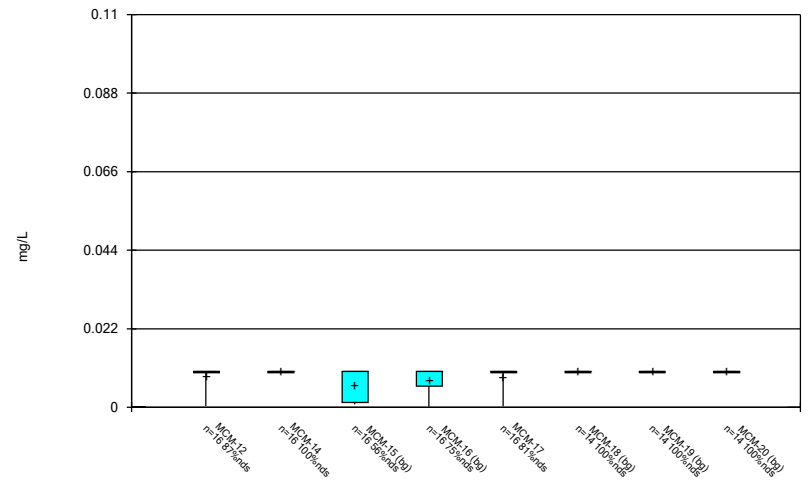
Constituent: Mercury Analysis Run 11/20/2023 12:47 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



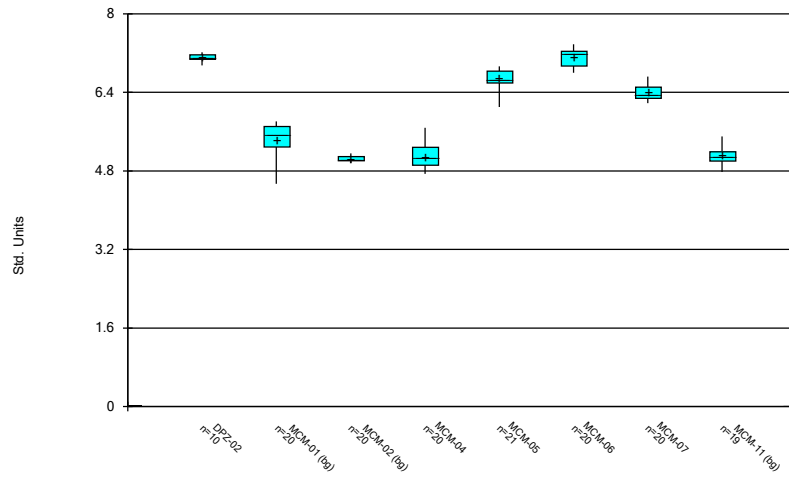
Constituent: Molybdenum Analysis Run 11/20/2023 12:47 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



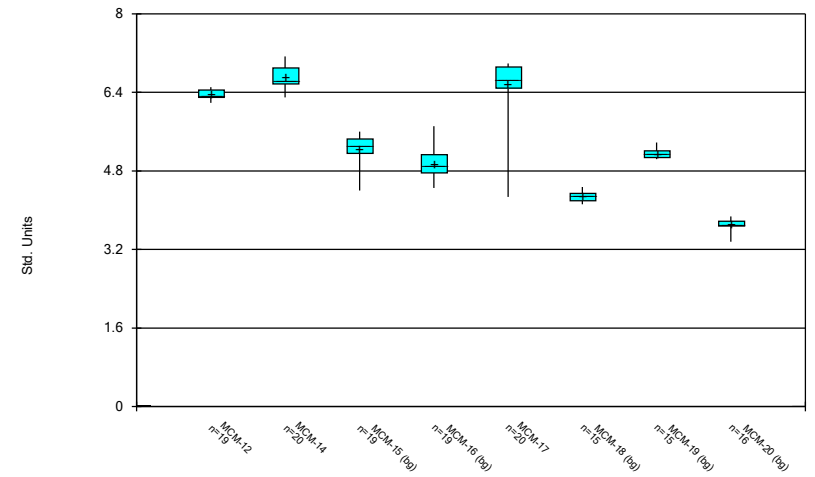
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 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



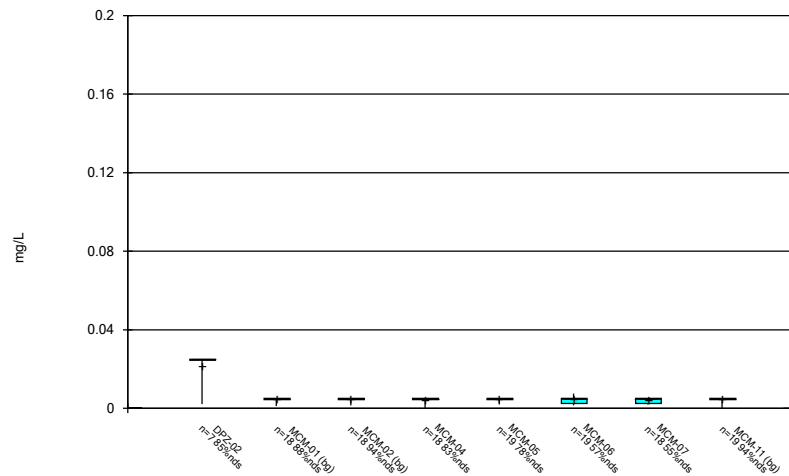
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 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



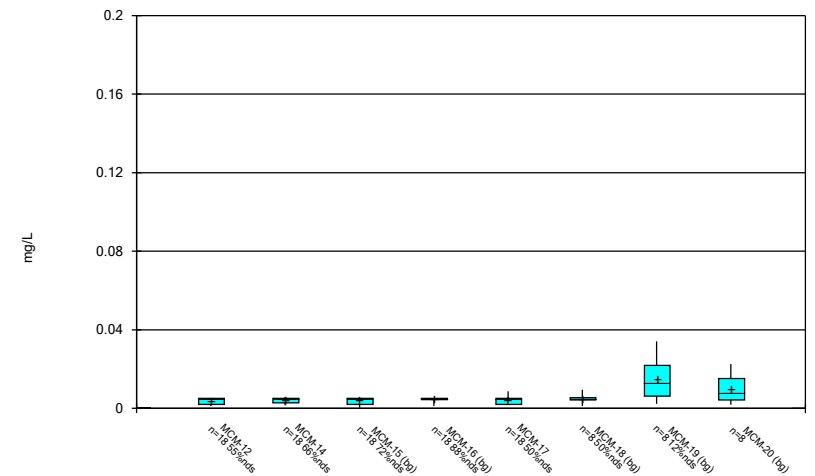
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 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



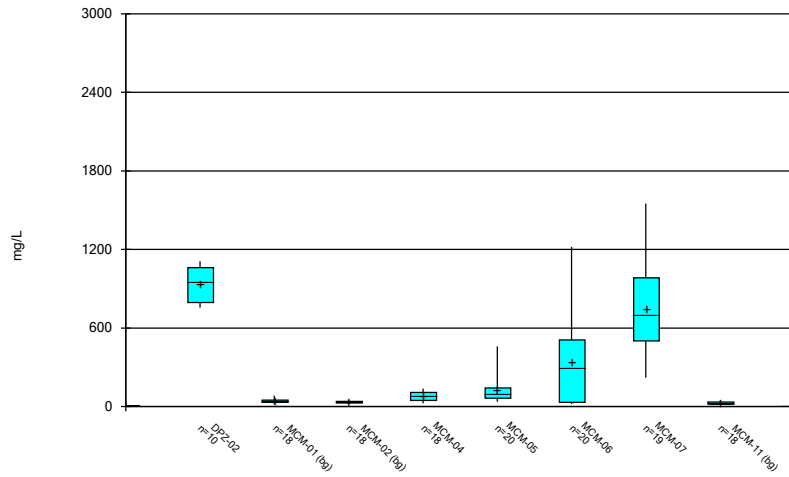
Constituent: Selenium Analysis Run 11/20/2023 12:47 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



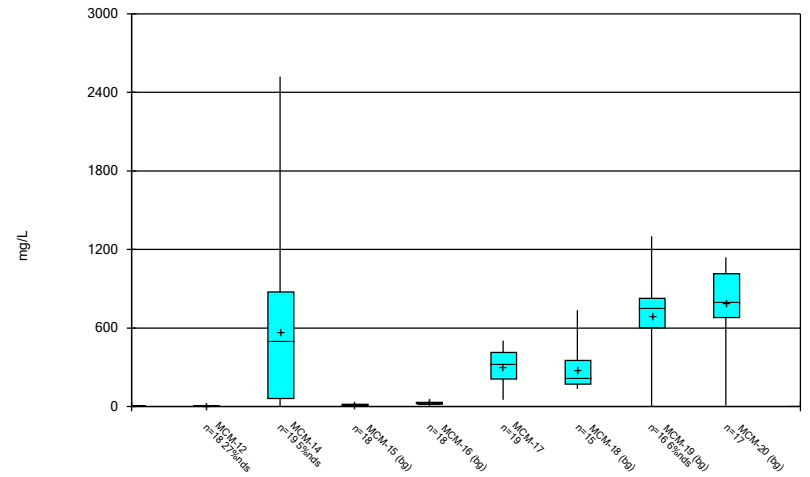
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 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



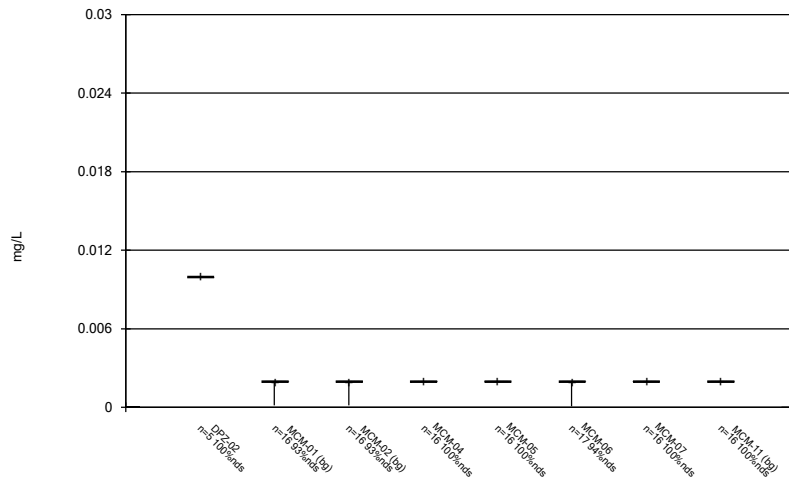
Constituent: Sulfate Analysis Run 11/20/2023 12:48 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



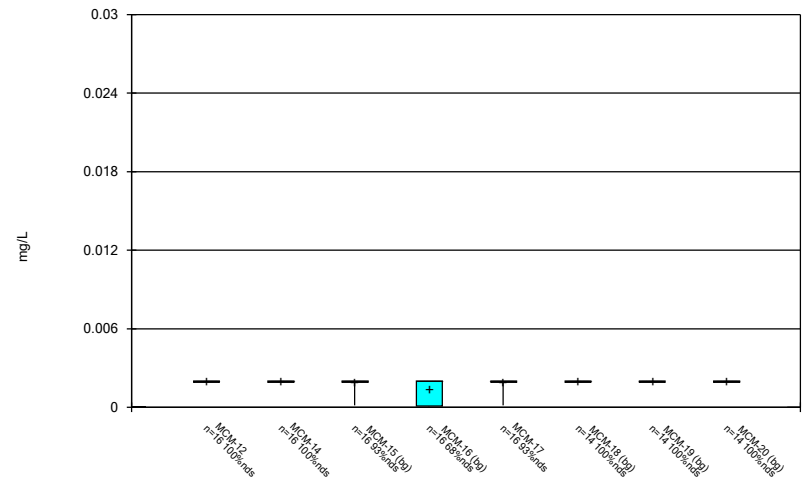
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Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



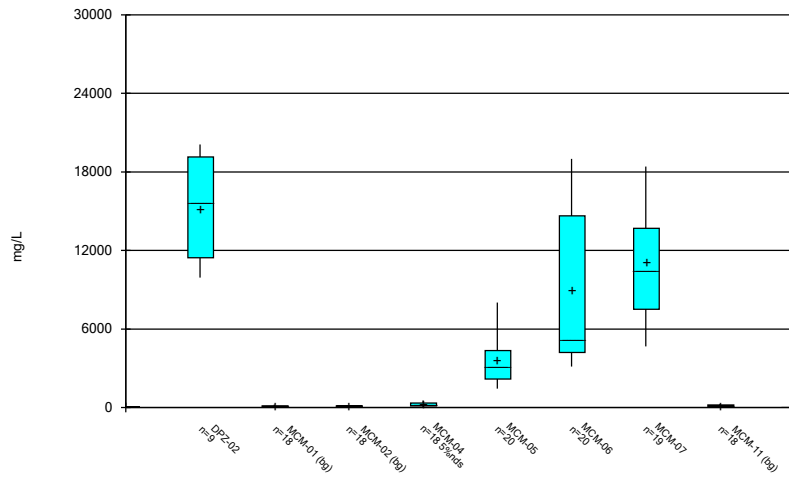
Constituent: Thallium Analysis Run 11/20/2023 12:48 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



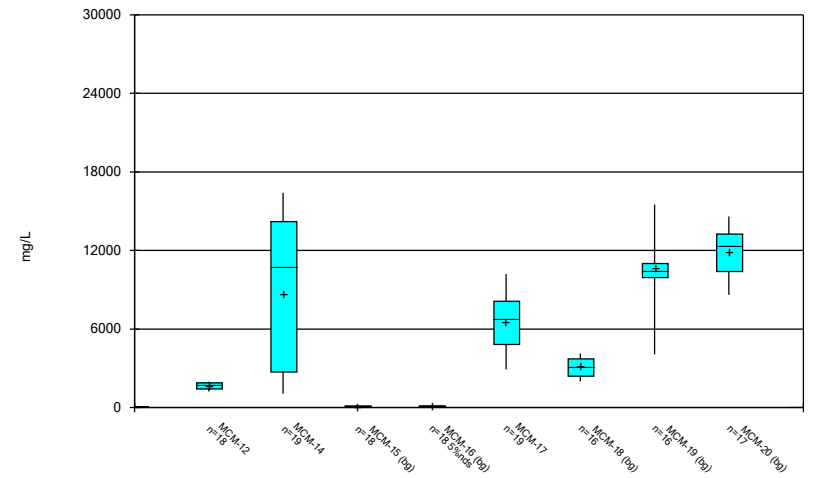
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Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 11/20/2023 12:48 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 11/20/2023 12:48 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 11/20/2023, 12:31 PM

	MCM-19 Cadmium (mg/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				<0.1 (o)	
1/21/2020				<0.15 (o)	
2/4/2020				<0.3 (o)	
2/13/2020				<0.025 (o)	
9/20/2022	0.0083 (o)		4.3 (Jo)		

FIGURE D.

Appendix III - Interwell Prediction Limits - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/17/2023, 2:54 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq N	Bq Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MCM-12	1.3	n/a	9/12/2023	1.42	Yes	138	n/a	n/a	7.246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-17	1.3	n/a	9/13/2023	1.97	Yes	138	n/a	n/a	7.246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-05	5.81	3.36	9/12/2023	6.81	Yes	143	n/a	n/a	0	n/a	n/a	0.0001922	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-06	5.81	3.36	9/14/2023	7.3	Yes	143	n/a	n/a	0	n/a	n/a	0.0001922	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-07	5.81	3.36	9/13/2023	6.53	Yes	143	n/a	n/a	0	n/a	n/a	0.0001922	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-12	5.81	3.36	9/12/2023	6.43	Yes	143	n/a	n/a	0	n/a	n/a	0.0001922	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-14	5.81	3.36	9/12/2023	6.68	Yes	143	n/a	n/a	0	n/a	n/a	0.0001922	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-17	5.81	3.36	9/13/2023	6.55	Yes	143	n/a	n/a	0	n/a	n/a	0.0001922	NP Inter (normality) 1 of 2

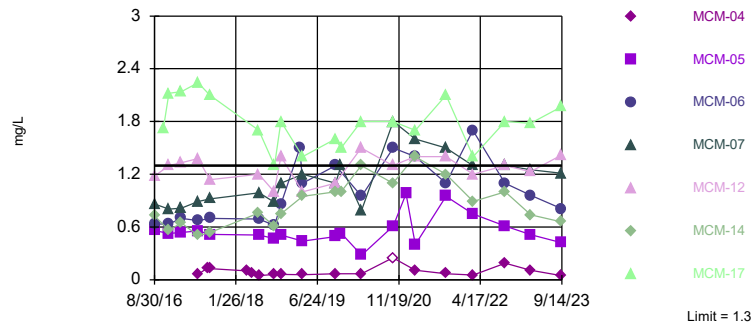
Appendix III - Interwell Prediction Limits - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/17/2023, 2:54 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq N	Bq Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MCM-04	1.3	n/a	9/13/2023	0.047	No	138	n/a	n/a	7.246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-05	1.3	n/a	9/12/2023	0.42	No	138	n/a	n/a	7.246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-06	1.3	n/a	9/14/2023	0.807	No	138	n/a	n/a	7.246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-07	1.3	n/a	9/13/2023	1.21	No	138	n/a	n/a	7.246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-12	1.3	n/a	9/12/2023	1.42	Yes	138	n/a	n/a	7.246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-14	1.3	n/a	9/12/2023	0.657	No	138	n/a	n/a	7.246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-17	1.3	n/a	9/13/2023	1.97	Yes	138	n/a	n/a	7.246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-04	202	n/a	9/13/2023	4.93	No	139	n/a	n/a	0.7194	n/a	n/a	0.0001013	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-05	202	n/a	9/12/2023	61.5	No	139	n/a	n/a	0.7194	n/a	n/a	0.0001013	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-06	202	n/a	9/14/2023	83.1	No	139	n/a	n/a	0.7194	n/a	n/a	0.0001013	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-07	202	n/a	9/13/2023	136	No	139	n/a	n/a	0.7194	n/a	n/a	0.0001013	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-12	202	n/a	9/12/2023	4.98	No	139	n/a	n/a	0.7194	n/a	n/a	0.0001013	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-14	202	n/a	9/12/2023	55.3	No	139	n/a	n/a	0.7194	n/a	n/a	0.0001013	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-17	202	n/a	9/13/2023	84.6	No	139	n/a	n/a	0.7194	n/a	n/a	0.0001013	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-04	8600	n/a	9/13/2023	10.4	No	138	n/a	n/a	0.7246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-05	8600	n/a	9/12/2023	1330	No	138	n/a	n/a	0.7246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-06	8600	n/a	9/14/2023	2220	No	138	n/a	n/a	0.7246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-07	8600	n/a	9/13/2023	3690	No	138	n/a	n/a	0.7246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-12	8600	n/a	9/12/2023	326	No	138	n/a	n/a	0.7246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-14	8600	n/a	9/12/2023	1180	No	138	n/a	n/a	0.7246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-17	8600	n/a	9/13/2023	2660	No	138	n/a	n/a	0.7246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-04	3.98	n/a	9/13/2023	0.0941J	No	142	n/a	n/a	49.3	n/a	n/a	0.00009726	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-05	3.98	n/a	9/12/2023	0.374J	No	142	n/a	n/a	49.3	n/a	n/a	0.00009726	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-06	3.98	n/a	9/14/2023	0.246J	No	142	n/a	n/a	49.3	n/a	n/a	0.00009726	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-07	3.98	n/a	9/13/2023	0.982J	No	142	n/a	n/a	49.3	n/a	n/a	0.00009726	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-12	3.98	n/a	9/12/2023	1.32J	No	142	n/a	n/a	49.3	n/a	n/a	0.00009726	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-14	3.98	n/a	9/12/2023	0.1ND	No	142	n/a	n/a	49.3	n/a	n/a	0.00009726	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-17	3.98	n/a	9/13/2023	1.46J	No	142	n/a	n/a	49.3	n/a	n/a	0.00009726	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-04	5.81	3.36	9/13/2023	5.29	No	143	n/a	n/a	0	n/a	n/a	0.0001922	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-05	5.81	3.36	9/12/2023	6.81	Yes	143	n/a	n/a	0	n/a	n/a	0.0001922	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-06	5.81	3.36	9/14/2023	7.3	Yes	143	n/a	n/a	0	n/a	n/a	0.0001922	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-07	5.81	3.36	9/13/2023	6.53	Yes	143	n/a	n/a	0	n/a	n/a	0.0001922	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-12	5.81	3.36	9/12/2023	6.43	Yes	143	n/a	n/a	0	n/a	n/a	0.0001922	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-14	5.81	3.36	9/12/2023	6.68	Yes	143	n/a	n/a	0	n/a	n/a	0.0001922	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-17	5.81	3.36	9/13/2023	6.55	Yes	143	n/a	n/a	0	n/a	n/a	0.0001922	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-04	1300	n/a	9/13/2023	27.1	No	138	n/a	n/a	0.7246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-05	1300	n/a	9/12/2023	139	No	138	n/a	n/a	0.7246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-06	1300	n/a	9/14/2023	263	No	138	n/a	n/a	0.7246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-07	1300	n/a	9/13/2023	620	No	138	n/a	n/a	0.7246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-12	1300	n/a	9/12/2023	1.18	No	138	n/a	n/a	0.7246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-14	1300	n/a	9/12/2023	160	No	138	n/a	n/a	0.7246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-17	1300	n/a	9/13/2023	300	No	138	n/a	n/a	0.7246	n/a	n/a	0.0001031	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-04	15500	n/a	9/13/2023	51	No	139	n/a	n/a	0.7194	n/a	n/a	0.0001013	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-05	15500	n/a	9/12/2023	2940	No	139	n/a	n/a	0.7194	n/a	n/a	0.0001013	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-06	15500	n/a	9/14/2023	4240	No	139	n/a	n/a	0.7194	n/a	n/a	0.0001013	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-07	15500	n/a	9/13/2023	7440	No	139	n/a	n/a	0.7194	n/a	n/a	0.0001013	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-12	15500	n/a	9/12/2023	1230	No	139	n/a	n/a	0.7194	n/a	n/a	0.0001013	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-14	15500	n/a	9/12/2023	2720	No	139	n/a	n/a	0.7194	n/a	n/a	0.0001013	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-17	15500	n/a	9/13/2023	6310	No	139	n/a	n/a	0.7194	n/a	n/a	0.0001013	NP Inter (normality) 1 of 2

Sanitas™ v.10.0.13 . UG
 Hollow symbols indicate censored values.
 Exceeds Limit: MCM-12, MCM-17

Prediction Limit
 Interwell Non-parametric

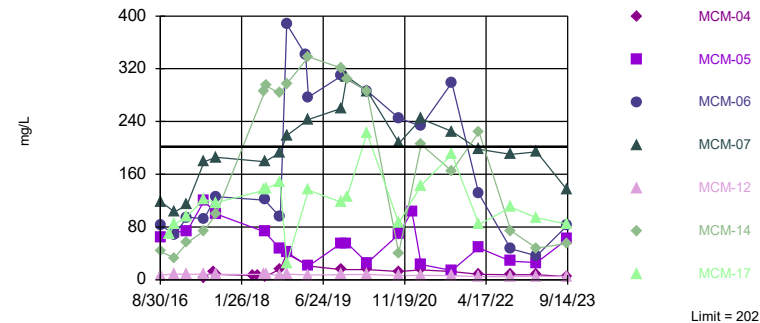


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 138 background values. 7.246% NDs. Annual per-constituent alpha = 0.001442. Individual comparison alpha = 0.0001031 (1 of 2). Comparing 7 points to limit.

Constituent: Boron Analysis Run 11/17/2023 2:52 PM View: Appendix III - Interwell
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.10.0.13 . UG
 Within Limit

Prediction Limit
 Interwell Non-parametric

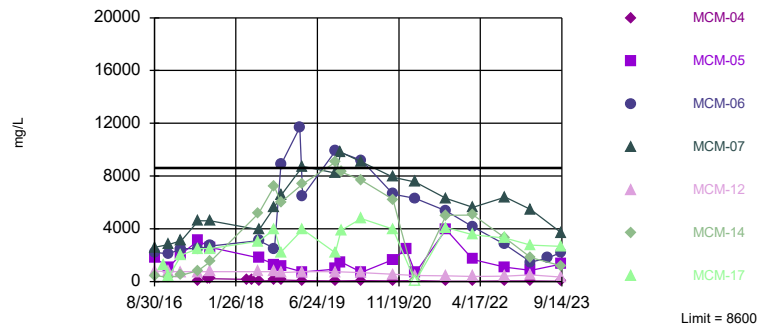


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 139 background values. 0.7194% NDs. Annual per-constituent alpha = 0.001418. Individual comparison alpha = 0.0001013 (1 of 2). Comparing 7 points to limit.

Constituent: Calcium Analysis Run 11/17/2023 2:52 PM View: Appendix III - Interwell
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.10.0.13 . UG
 Hollow symbols indicate censored values.
 Within Limit

Prediction Limit
 Interwell Non-parametric

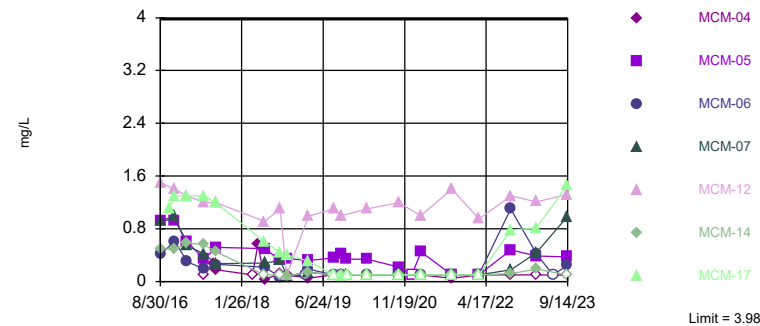


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 138 background values. 0.7246% NDs. Annual per-constituent alpha = 0.001442. Individual comparison alpha = 0.0001031 (1 of 2). Comparing 7 points to limit.

Constituent: Chloride Analysis Run 11/17/2023 2:52 PM View: Appendix III - Interwell
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.10.0.13 . UG
 Hollow symbols indicate censored values.
 Within Limit

Prediction Limit
 Interwell Non-parametric

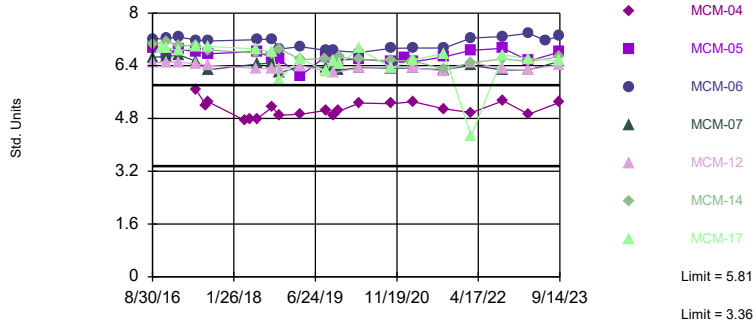


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 142 background values. 49.3% NDs. Annual per-constituent alpha = 0.001361. Individual comparison alpha = 0.00009726 (1 of 2). Comparing 7 points to limit.

Constituent: Fluoride Analysis Run 11/17/2023 2:52 PM View: Appendix III - Interwell
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Exceeds Limits: MCM-05, MCM-06, MCM-07, MCM-12, MCM-14, MCM-17

Prediction Limit Interwell Non-parametric



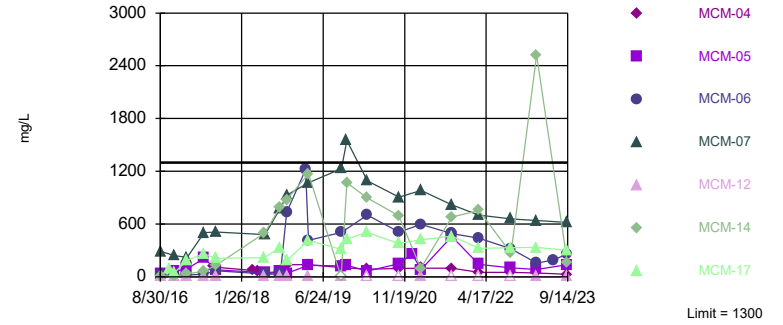
Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 143 background values. Annual per-constituent alpha = 0.002689. Individual comparison alpha = 0.0001922 (1 of 2). Comparing 7 points to limit.

Constituent: pH, field Analysis Run 11/17/2023 2:52 PM View: Appendix III - Interwell
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Hollow symbols indicate censored values.

Within Limit

Prediction Limit Interwell Non-parametric



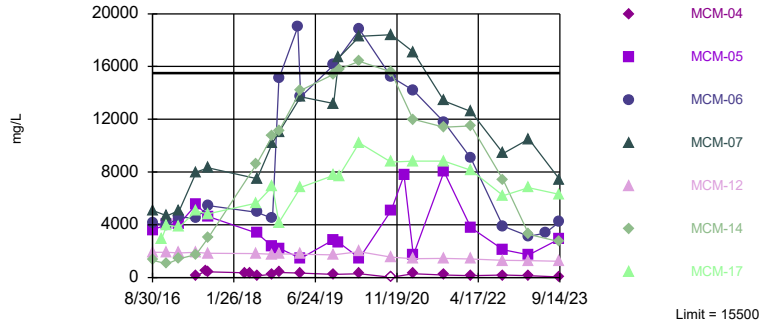
Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 138 background values. 0.7246% NDs. Annual per-constituent alpha = 0.001442. Individual comparison alpha = 0.0001031 (1 of 2). Comparing 7 points to limit.

Constituent: Sulfate Analysis Run 11/17/2023 2:52 PM View: Appendix III - Interwell
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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 139 background values. 0.7194% NDs. Annual per-constituent alpha = 0.001418. Individual comparison alpha = 0.0001013 (1 of 2). Comparing 7 points to limit.

Constituent: Total Dissolved Solids Analysis Run 11/17/2023 2:52 PM View: Appendix III - Interwell
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/17/2023 2:54 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				

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/17/2023 2:54 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)
2/28/2023		1.23						1.78	
3/1/2023	0.091		0.0669						0.0461
3/2/2023				0.738	0.511	0.961	1.25		
9/12/2023	0.101	1.42	0.0613	0.657	0.42				
9/13/2023							1.21	1.97	0.0783
9/14/2023						0.807			

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/17/2023 2:54 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	0.161					
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				0.84	1.1	0.27
11/18/2019						0.29 (J)
11/19/2019				0.83	1.3	
11/20/2019						
11/21/2019						
12/4/2019				0.68	0.81	
12/5/2019						0.23
12/17/2019				0.57		
12/18/2019					0.77	0.23
1/8/2020				0.73	0.9	
1/9/2020						0.2
1/21/2020				0.75	0.94	0.24 (J)
2/4/2020				0.79 (J)	0.96 (J)	0.24 (J)
2/13/2020				0.74	0.88	0.22
3/26/2020						
3/27/2020	0.17 (J)		0.076 (J)	0.96	0.94	0.24 (J)
3/28/2020		0.067 (J)				
10/12/2020						0.24 (J)
10/13/2020	<0.5	<0.5	<0.5	0.73	1.1	
10/14/2020						
10/15/2020						

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/17/2023 2:54 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)
1/4/2021						
3/2/2021			<0.5			
3/3/2021	<0.5			0.79 (J)	0.91 (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)	1.2	0.91 (J)	0.2 (J)
3/1/2022				0.41 (J)	0.87 (J)	
3/2/2022	0.086		0.054			0.23 (J)
3/3/2022		0.053				
9/20/2022				0.77	0.9	0.18 (J)
9/21/2022	0.23 (J)	0.19 (J)	0.14 (J)			
2/28/2023				0.707	0.723	0.185
3/1/2023	0.115	0.108				
3/2/2023			0.0416			
9/12/2023			0.0393			
9/13/2023		0.047		1.2	1.02	
9/14/2023	0.102					0.229

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/17/2023 2:54 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-05	MCM-07	MCM-06	MCM-17	MCM-02 (bg)
8/30/2016	7.3	7.05	42.8	4.02					
8/31/2016					65	119	82.8		
10/25/2016								69.4	
11/30/2016	10.8	8.69	33.2	4.87	71.7	103	68.7	83.9	
2/15/2017	14.3	8.34	56.1	6.61				96.3	
2/16/2017					74	114	94.8		
5/31/2017		8.85	73.6					122	5.9
6/1/2017	12.7 (J)			6.42					
6/2/2017					120	179	92.5		
8/2/2017									4.69
8/15/2017		8.05						117	
8/16/2017	8.7		99.6						5.25
8/17/2017				5.62	100	186	126		
4/4/2018									
4/5/2018									5
5/8/2018									
5/9/2018									4.7
6/19/2018	11.6 (J)	8.3	285					136	4.8
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						
9/26/2018	12.8 (J)			5.3				148	4.6
9/27/2018					46.6	193	95.1		
11/6/2018			297			219		24.7	
11/7/2018	11.9	8.5		5.3	41.8		387.5 (D)		4.6
3/6/2019							341		
3/24/2019		7.4	338		20.9 (J)	243	277	136	
3/25/2019	12.6 (J)			5.7					4.7
10/15/2019		7.9	321						
10/16/2019	13.6			4.8	55.2			118	4.9
10/17/2019						260	309		
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	286	5.4				222	4.9
3/28/2020					25.8	286	286		
10/12/2020		6.1							
10/13/2020	9.8		40.9	5.7				86.4	3.8
10/14/2020						207	245		

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/17/2023 2:54 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-05	MCM-07	MCM-06	MCM-17	MCM-02 (bg)
10/15/2020					69.1				
1/4/2021					104				
3/3/2021	14								4
3/4/2021		6.5	205	11.2	23.4	244	233	143	
9/13/2021		6	165						
9/14/2021	9.6			6.5	13.9	225	299	190	4.2
3/1/2022					48.4		131		
3/2/2022	8.2					198			4.1
3/3/2022		4.6	224	5.4				84	
9/20/2022							47		
9/21/2022	9.2	4.7	74	4.6	28	190		110	4.3
2/28/2023		5.17						94.2	
3/1/2023	7.87			4.74					5.26
3/2/2023			48		25.9	194	36.1		
9/12/2023	10.1	4.98	55.3	4.48	61.5				
9/13/2023						136		84.6	
9/14/2023							83.1		6.64

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/17/2023 2:54 PM View: Appendix III - Interwell
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-11 (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	18.6					
6/1/2017		3.65				
6/2/2017			2.77			
8/2/2017	18.5	12.4	1.27			
8/15/2017	4.09					
8/16/2017						
8/17/2017		8.17	5.53			
4/4/2018	<25	6.8	6.5			
4/5/2018						
5/8/2018	18.4 (J)	5.7	6.7			
5/9/2018						
6/19/2018	4.3		7.4			
6/20/2018		4.3				
6/21/2018						
6/28/2018						
9/25/2018	6.2 (D)					
9/26/2018			8.5 (J)			
9/27/2018		16.4 (J)				
11/6/2018	1.8	39.5				
11/7/2018			9.8			
3/6/2019						
3/24/2019						
3/25/2019	2.5 (D)	20.8 (J)	7.8			
10/15/2019		15.5	6.7			
10/16/2019	2.2					
10/17/2019						
11/7/2019				158	163	46.2
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					145	42
1/8/2020				147	157	
1/9/2020						37.1
1/21/2020				167	152	40.1
2/4/2020				142	139	36.2
2/13/2020				148	146	38.9
3/26/2020						
3/27/2020	3.3		5.9	122	113	23.2
3/28/2020		15.5				
10/12/2020	2.8					19.1
10/13/2020		12.5	0.83	125	128	
10/14/2020						

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/17/2023 2:54 PM View: Appendix III - Interwell
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-11 (bg)	MCM-04	MCM-15 (bg)	MCM-19 (bg)	MCM-20 (bg)	MCM-18 (bg)
10/15/2020						
1/4/2021						
3/3/2021						
3/4/2021	2.1	15.1	1.4	123	110	26
9/13/2021						
9/14/2021	14	12.5	6.7	93.6	61.1	18.8
3/1/2022				35.5	99.8	
3/2/2022	6.8		7.2			22.3
3/3/2022		8				
9/20/2022				150	100	20
9/21/2022	7.6	7.8	0.83			
2/28/2023				150	104	22.5
3/1/2023	6.53	7.75				
3/2/2023			1.41			
9/12/2023			0.953			
9/13/2023	20.7	4.93		202	108	
9/14/2023						21.1

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/17/2023 2:54 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 11/17/2023 2:54 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
2/28/2023		518						2770	
3/1/2023	14.9		14.2						17.7
3/2/2023				1810	853	1470	5450		
6/14/2023						1770			
9/12/2023	10.7	326	13.3	1180	1330				
9/13/2023							3690	2660	98.5
9/14/2023						2220			

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/17/2023 2:54 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	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	2360	6170
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	1630	5010
2/4/2020				5700	1760	5030
2/13/2020				7060	1850	6140
3/26/2020						
3/27/2020	32.9		14.1	7110	1450	6870
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 11/17/2023 2:54 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			4.2			
3/3/2021	20.5			<1	1230	5170
3/4/2021		69.6				
9/13/2021						
9/14/2021	21.8	28.5	13.6	5100	1020	7250
3/1/2022				4900		1870
3/2/2022	20.6		14.3		1420	
3/3/2022		12.2				
9/20/2022				5700	1200	6200
9/21/2022	23	47	3.3			
2/28/2023				7930	1250	5760
3/1/2023	21.8	45.6				
3/2/2023			4.88			
6/14/2023						
9/12/2023			3.49			
9/13/2023		10.4		5250		8600
9/14/2023	21.1				1190	

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/17/2023 2:54 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	0.03 (J)	1.5	0.04 (J)	0.5					
8/31/2016					0.93	0.41	0.92		
10/25/2016								1.1	
11/30/2016	0.04 (J)	1.4	0.18 (J)	0.49	0.93	0.61	0.99	1.3	
2/15/2017	0.007 (J)	1.3	0.02 (J)	0.58				1.3	
2/16/2017					0.6	0.3 (J)	0.54		
5/31/2017		1.2		0.56				1.3	0.85
6/1/2017	<0.1		0.005 (J)						
6/2/2017					0.34	0.19 (J)	0.42		
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)		0.52	0.26 (J)	0.27 (J)		
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)		0.5	0.22 (J)			
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					0.32	0.068 (J)	0.32 (D)		
11/6/2018				0.084 (J)			0.086 (J)	0.4	<0.1
11/7/2018	<0.1	<0.1	<0.1		0.35	10.3 (o)			
3/6/2019						<0.1			
3/24/2019		0.99		0.14 (J)	0.32	0.19 (J)	0.14 (J)	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					0.36	<0.1	<0.1		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					0.34		<0.1		
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					0.34	<0.1	<0.1		
10/12/2020		1.2							<0.1

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/17/2023 2:54 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)
10/13/2020	<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					0.45	<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	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	<0.1	0.12	0.48		0.18	0.78	0.11
2/28/2023		1.21 (J)						0.815 (J)	
3/1/2023	<0.1		0.0397 (J)						0.101 (J)
3/2/2023				0.188 (J)	0.388 (J)	0.419 (J)	0.44 (J)		
6/14/2023						<0.1			
9/12/2023	<0.1	1.32 (J)	<0.1	<0.1	0.374 (J)				
9/13/2023							0.982 (J)	1.46 (J)	0.362 (J)
9/14/2023						0.246 (J)			

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/17/2023 2:54 PM View: Appendix III - Interwell
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-18 (bg)	MCM-19 (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	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				0.49	<0.1	1.4
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				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
3/26/2020						
3/27/2020	<0.1		<0.1	0.06 (J)	<0.1	<0.1
3/28/2020		<0.1				
10/12/2020				0.34		

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/17/2023 2:54 PM View: Appendix III - Interwell
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (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			0.32	<0.1	<0.1
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				0.61 (J)	<0.1	4.3 (Jo)
9/21/2022	<0.1	<0.1	<0.1			
2/28/2023				0.407 (J)	0.38 (J)	3.32 (J)
3/1/2023	<0.1	<0.1				
3/2/2023			0.0397 (J)			
6/14/2023						
9/12/2023			<0.1			
9/13/2023		0.0941 (J)			<0.1	3.98 (J)
9/14/2023	<0.1			0.251 (J)		

Prediction Limit

Constituent: pH, field (Std. Units) Analysis Run 11/17/2023 2:54 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-07	MCM-06	MCM-05	MCM-17	MCM-11 (bg)
8/30/2016	5.66	5.18	7.04	6.49					
8/31/2016					6.66	7.21	6.93		
10/25/2016								6.95	
11/30/2016	5.36	4.96	7.13	6.5	6.69	7.23	6.77	6.95	
2/15/2017	5.25	5.13	7.02	6.51				6.85	
2/16/2017					6.72	7.27	6.89		
5/31/2017			7	6.45				6.96	5.29
6/1/2017	5.59	4.99							
6/2/2017					6.53	7.18	6.83		
8/2/2017									5.19
8/15/2017				6.41				6.99	5.19
8/16/2017	5.58		6.88						
8/17/2017		4.68			6.28	7.15	6.76		
4/4/2018									5.19
4/5/2018									
5/8/2018									5.3
5/9/2018									
6/19/2018	5.51		6.78	6.32				6.91	5.15
6/20/2018		4.77				7.19	6.83		
6/21/2018					6.45				
9/25/2018			6.75	6.31					5.13
9/26/2018	5.32	4.65						6.81	
9/27/2018					6.48	7.21	6.64		
11/6/2018			6.92		6.18			5.99	5.08
11/7/2018	5.72	4.99		6.3		6.91	6.6		
3/24/2019			6.59	6.4	6.38	6.98	6.1	6.62	
3/25/2019	5.75	5.13							5.05
8/26/2019			6.62						
8/27/2019	5.58	4.88		6.24				6.23	
8/28/2019					6.35	6.87	6.69		4.87
10/15/2019			6.58	6.19					
10/16/2019	5.72	4.89					6.64	6.54	5.05
10/17/2019					6.4	6.86			
11/7/2019									
11/18/2019									
11/19/2019									
11/20/2019	5.77				6.27		6.58		
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	5.09
3/28/2020					6.35	6.8	6.6		
10/12/2020				6.35					5
10/13/2020	5.69	5.17	6.56					6.34	
10/14/2020					6.32	6.93			
10/15/2020							6.53		

Prediction Limit

Constituent: pH, field (Std. Units) Analysis Run 11/17/2023 2:54 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-07	MCM-06	MCM-05	MCM-17	MCM-11 (bg)
1/4/2021							6.66		
3/2/2021			6.55	6.34					
3/3/2021	5.81	5.71						6.58	5.07
3/4/2021					6.33	6.94	6.52		
9/13/2021			6.3	6.24					
9/14/2021	5.13	4.69			6.28	6.94	6.67	6.77	5.5
3/1/2022						7.24	6.87		
3/2/2022	5.32				6.41				5.11
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	6.27		6.93	6.72	4.97
2/28/2023				6.28				6.62	
3/1/2023	4.91	4.76							4.78
3/2/2023			6.53		6.28	7.38	6.55		
6/13/2023									
6/14/2023						7.17			
9/12/2023	4.54	4.45	6.68	6.43			6.81		
9/13/2023					6.53			6.55	4.92
9/14/2023						7.3			

Prediction Limit

Constituent: pH, field (Std. Units) Analysis Run 11/17/2023 2:54 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	5.06					
6/1/2017		5.68				
6/2/2017			5.31			
8/2/2017	5	5.2	5.05			
8/15/2017						
8/16/2017	4.98					
8/17/2017		5.31	5.52			
4/4/2018		4.74	5.45			
4/5/2018	5.02					
5/8/2018		4.78	5.54			
5/9/2018	4.96					
6/19/2018	5.02		5.6			
6/20/2018		4.79				
6/21/2018						
9/25/2018						
9/26/2018	5.06		5.17			
9/27/2018		5.14				
11/6/2018		4.9				
11/7/2018	5.03		5.47			
3/24/2019			5.4			
3/25/2019	5.08	4.93				
8/26/2019						
8/27/2019		5.05	5.35			
8/28/2019	4.99					
10/15/2019		4.89	5.32			
10/16/2019	4.98					
10/17/2019						
11/7/2019				5.21	4.25	3.79
11/18/2019					4.12	
11/19/2019	5.11			5.15		3.78
11/20/2019		5.03				
11/21/2019						
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				5.1	4.28	3.73
2/4/2020				5.15	4.26	3.72
2/13/2020				5.07	4.2	3.75
3/26/2020						
3/27/2020	5.12		5.3	5.14	4.34	3.81
3/28/2020		5.27				
10/12/2020					4.29	
10/13/2020	5.03	5.25	5.02	5.04		3.72
10/14/2020						
10/15/2020						

Prediction Limit

Constituent: pH, field (Std. Units) Analysis Run 11/17/2023 2:54 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)
1/4/2021						
3/2/2021			5.16			
3/3/2021	5.06			5.1	4.37	3.36
3/4/2021		5.31				
9/13/2021						
9/14/2021	5.04	5.09	5.39	5.31	4.28	3.72
3/1/2022				5.38		3.69
3/2/2022	5.16		5.37		4.33	
3/3/2022		4.98				
9/20/2022				5.14	4.47	3.63
9/21/2022	5.14	5.34	5.23			
2/28/2023				5.08	4.42	3.7
3/1/2023	5.1	4.93				
3/2/2023			4.45			
6/13/2023						3.64
6/14/2023						
9/12/2023			4.4			
9/13/2023		5.29		5.05		3.67
9/14/2023	5.02				4.17	

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/17/2023 2:54 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				

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/17/2023 2:54 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
2/28/2023		1.33						334	
3/1/2023	45.3		25.8						21.4
3/2/2023				2520	84.2	157	640		
6/13/2023									
6/14/2023						187			
9/12/2023	47.5	1.18	25.2	160	139				
9/13/2023							620	300	42
9/14/2023						263			

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/17/2023 2:54 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	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				832	379	1010
11/18/2019					737	
11/19/2019				795		1140
11/20/2019						
11/21/2019						
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				611	254	798
2/4/2020				599	432	1120
2/13/2020				761	300	833
3/26/2020						
3/27/2020	28.6		14.6	836	219	700
3/28/2020		86.6				
10/12/2020					191	
10/13/2020	27.6	92.3	7.6	609		638
10/14/2020						
10/15/2020						

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/17/2023 2:54 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)
1/4/2021						
3/2/2021			8			
3/3/2021	27.6			<1	171	743
3/4/2021		99.1				
9/13/2021						
9/14/2021	30.4	96.2 (M1)	16.7	995	134	659
3/1/2022				158		543
3/2/2022	25.7		16		186	
3/3/2022		50.6				
9/20/2022				740	160	750
9/21/2022	29	52	6.3			
2/28/2023				820	186	950
3/1/2023	27.4	44.2				
3/2/2023			8.12			
6/13/2023						1030
6/14/2023						
9/12/2023			6.48			
9/13/2023		27.1		1300		832
9/14/2023	28.8				165	

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/17/2023 2:54 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 11/17/2023 2:54 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
2/28/2023		1290						6810	
3/1/2023	78		56						67
3/2/2023				3280	1710	3120	10500		
6/13/2023									
6/14/2023						3370			
9/12/2023	80	1230	42	2720	2940				
9/13/2023							7440	6310	274
9/14/2023						4240			

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/17/2023 2:54 PM View: Appendix III - Interwell
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-18 (bg)	MCM-19 (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	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				4140	10900	13500
11/18/2019				4030		
11/19/2019					10000	13300
11/20/2019						
11/21/2019						
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
3/26/2020						
3/27/2020	119		110	3090	14300	14600
3/28/2020		284				
10/12/2020				2920		
10/13/2020	118	<25	63		6600	13900
10/14/2020						
10/15/2020						

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/17/2023 2:54 PM View: Appendix III - Interwell
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
1/4/2021						
3/2/2021			40			
3/3/2021	84			2620	11000	11400
3/4/2021		285				
9/13/2021						
9/14/2021	76	193	96	2190	14600	10300
3/1/2022					4050	10500
3/2/2022	94		103	3100		
3/3/2022		146				
9/20/2022				2000	10000	8600
9/21/2022	90	180	38			
2/28/2023				2090	10400	8720
3/1/2023	73	142				
3/2/2023			35			
6/13/2023						11300
6/14/2023						
9/12/2023			20			
9/13/2023		51			15500	10300
9/14/2023	76			2040		

FIGURE E.

Appendix III Trend Tests - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/17/2023, 3:00 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
pH, field (Std. Units)	MCM-11 (bg)	-0.04975	-91	-74	Yes	19	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-14	-0.09264	-129	-81	Yes	20	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-20 (bg)	-0.03841	-75	-58	Yes	16	0	n/a	n/a	0.01	NP

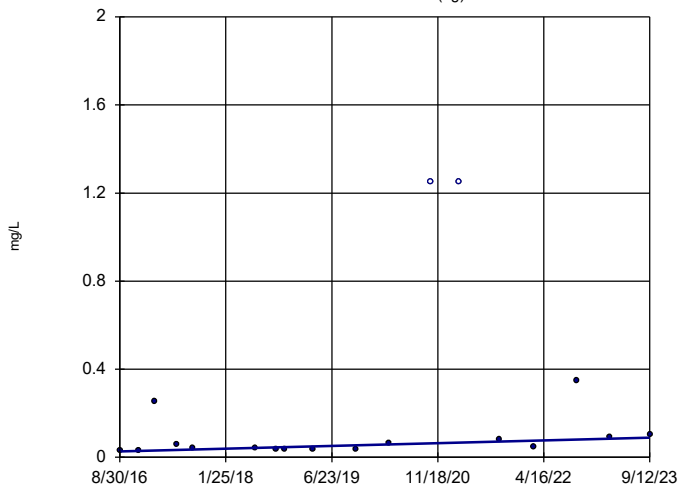
Appendix III Trend Tests - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/17/2023, 3:00 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	MCM-01 (bg)	0.008817	59	68	No	18	11.11	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-02 (bg)	-0.007563	-28	-68	No	18	11.11	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-11 (bg)	0.004059	39	68	No	18	11.11	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-12	0.01369	31	68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-15 (bg)	0.001487	13	68	No	18	11.11	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-16 (bg)	-0.004331	-50	-68	No	18	11.11	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-17	-0.008732	-20	-74	No	19	0	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-18 (bg)	-0.01566	-54	-58	No	16	0	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-19 (bg)	0.01317	9	58	No	16	0	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-20 (bg)	-0.01714	-18	-58	No	16	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-01 (bg)	-0.05799	-41	-81	No	20	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-02 (bg)	0.01681	68	81	No	20	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-05	-0.03198	-48	-87	No	21	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-06	0.003503	6	81	No	20	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-07	-0.04353	-72	-81	No	20	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-11 (bg)	-0.04975	-91	-74	Yes	19	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-12	-0.02929	-54	-74	No	19	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-14	-0.09264	-129	-81	Yes	20	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-15 (bg)	-0.08426	-69	-74	No	19	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-16 (bg)	-0.02704	-32	-74	No	19	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-17	-0.06345	-74	-81	No	20	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-18 (bg)	0.06526	51	53	No	15	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-19 (bg)	-0.01371	-15	-53	No	15	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-20 (bg)	-0.03841	-75	-58	Yes	16	0	n/a	n/a	0.01	NP

Sen's Slope Estimator

MCM-01 (bg)

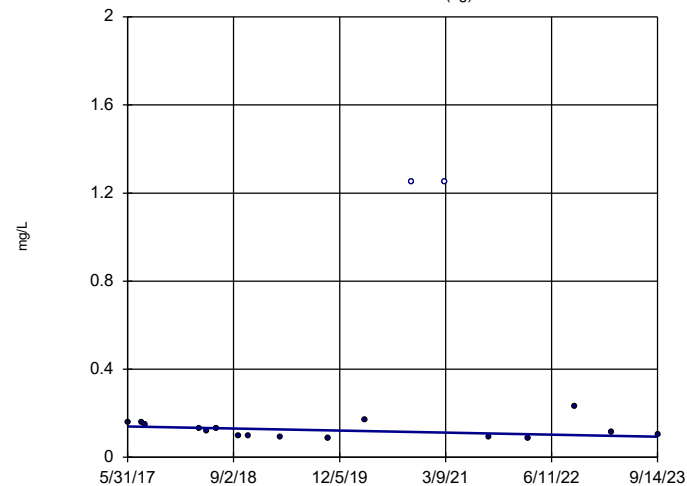


n = 18
Slope = 0.008817
units per year.
Mann-Kendall
statistic = 59
critical = 68
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 11/17/2023 2:57 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-02 (bg)

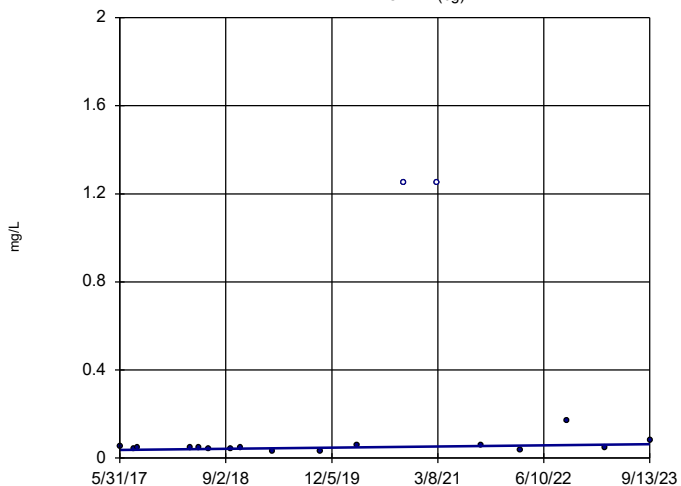


n = 18
Slope = -0.007563
units per year.
Mann-Kendall
statistic = -28
critical = -68
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 11/17/2023 2:57 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-11 (bg)

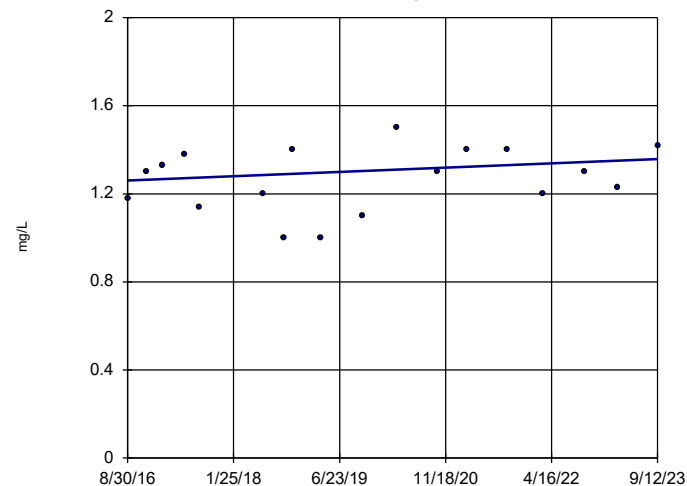


n = 18
Slope = 0.004059
units per year.
Mann-Kendall
statistic = 39
critical = 68
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 11/17/2023 2:57 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-12

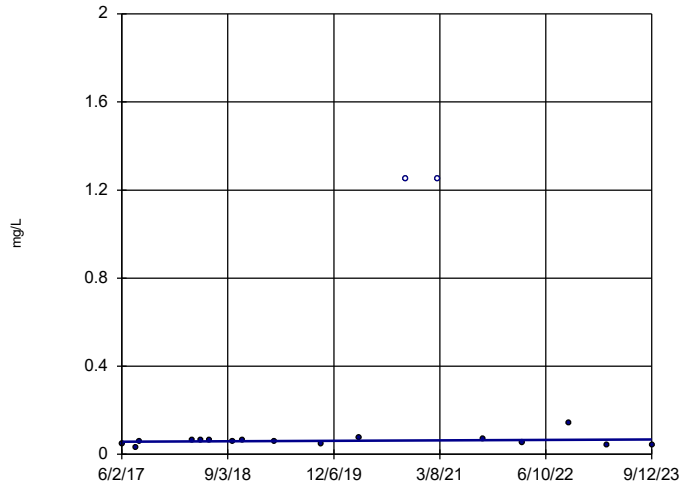


n = 18
Slope = 0.01369
units per year.
Mann-Kendall
statistic = 31
critical = 68
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 11/17/2023 2:57 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-15 (bg)

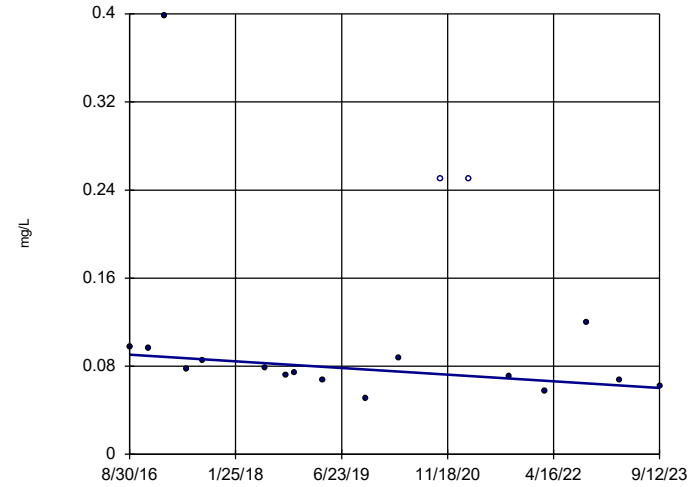


n = 18
Slope = 0.001487
units per year.
Mann-Kendall
statistic = 13
critical = 68
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 11/17/2023 2:57 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-16 (bg)

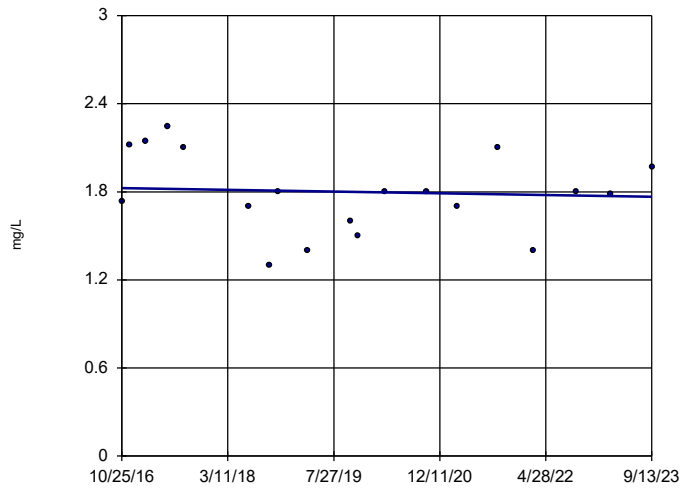


n = 18
Slope = -0.004331
units per year.
Mann-Kendall
statistic = -50
critical = -68
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 11/17/2023 2:57 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-17

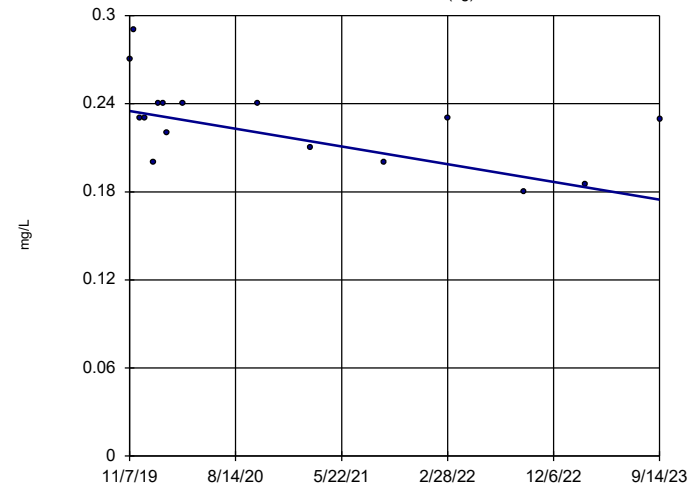


n = 19
Slope = -0.008732
units per year.
Mann-Kendall
statistic = -20
critical = -74
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 11/17/2023 2:57 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-18 (bg)

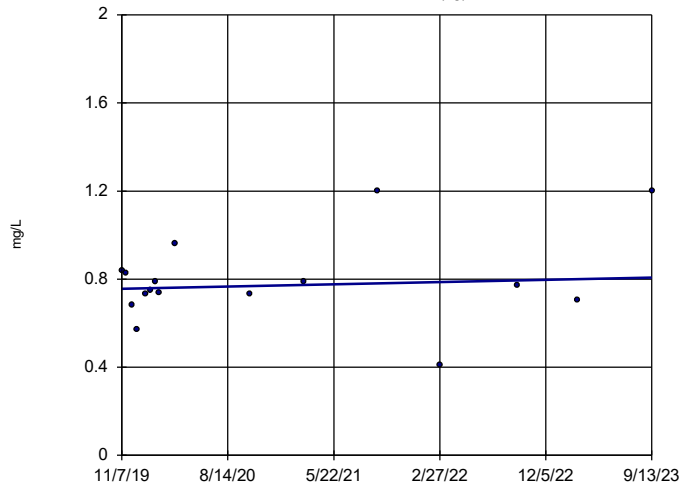


n = 16
Slope = -0.01566
units per year.
Mann-Kendall
statistic = -54
critical = -58
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 11/17/2023 2:57 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-19 (bg)

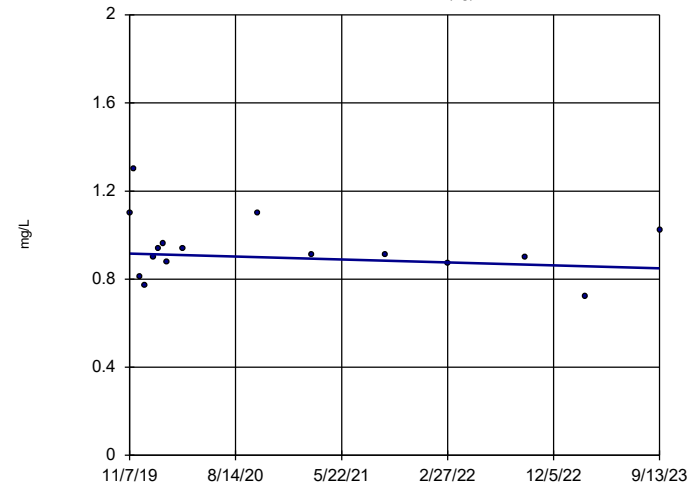


n = 16
 Slope = 0.01317
 units per year.
 Mann-Kendall
 statistic = 9
 critical = 58
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Boron Analysis Run 11/17/2023 2:57 PM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-20 (bg)

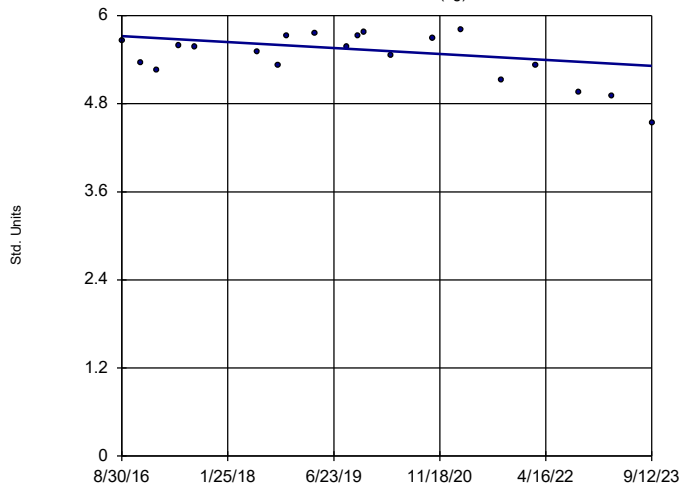


n = 16
 Slope = -0.01714
 units per year.
 Mann-Kendall
 statistic = -18
 critical = -58
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Boron Analysis Run 11/17/2023 2:57 PM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-01 (bg)

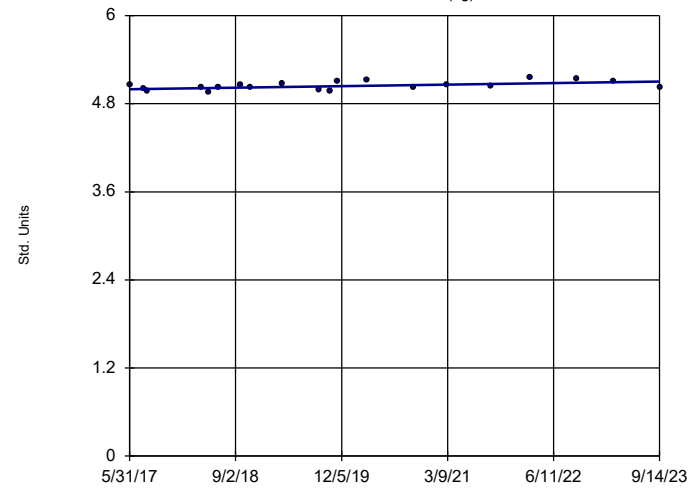


n = 20
 Slope = -0.05799
 units per year.
 Mann-Kendall
 statistic = -41
 critical = -81
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH, field Analysis Run 11/17/2023 2:57 PM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-02 (bg)

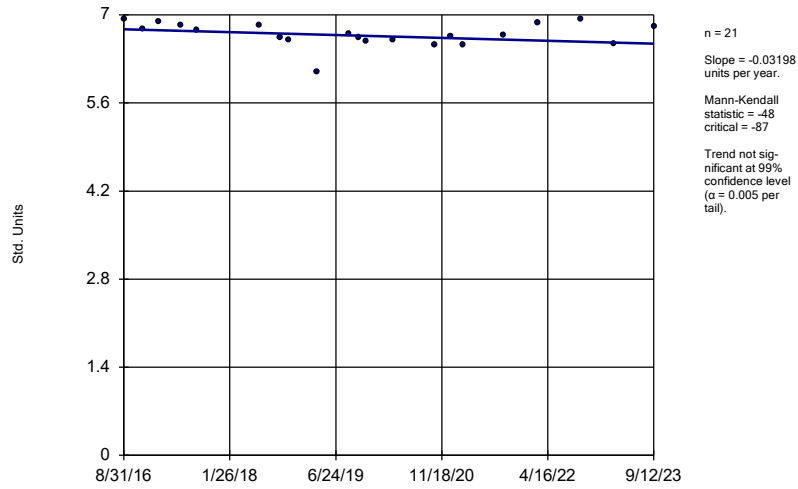


n = 20
 Slope = 0.01681
 units per year.
 Mann-Kendall
 statistic = 68
 critical = 81
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH, field Analysis Run 11/17/2023 2:57 PM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

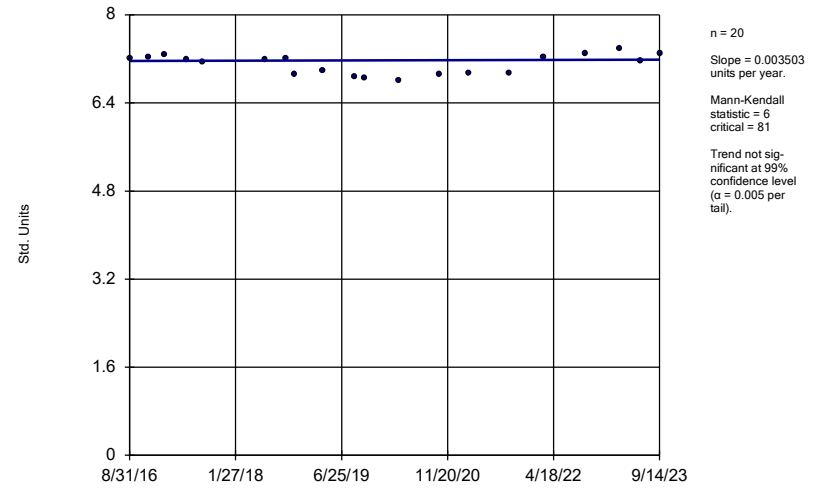
MCM-05



Constituent: pH, field Analysis Run 11/17/2023 2:57 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

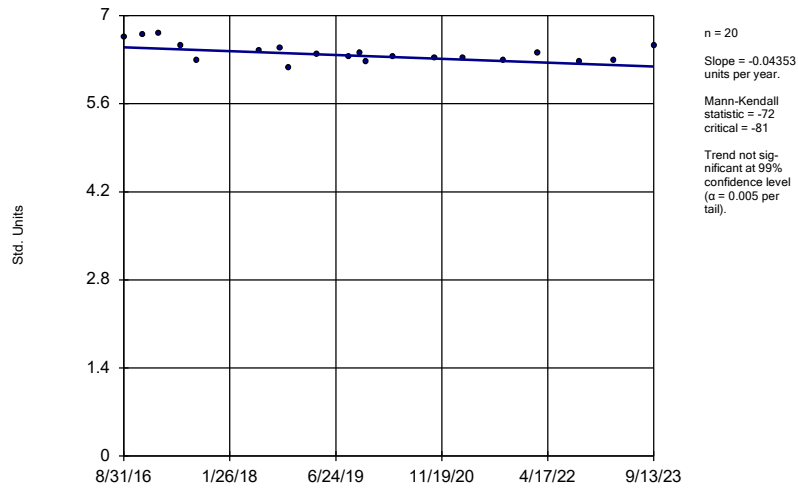
MCM-06



Constituent: pH, field Analysis Run 11/17/2023 2:57 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

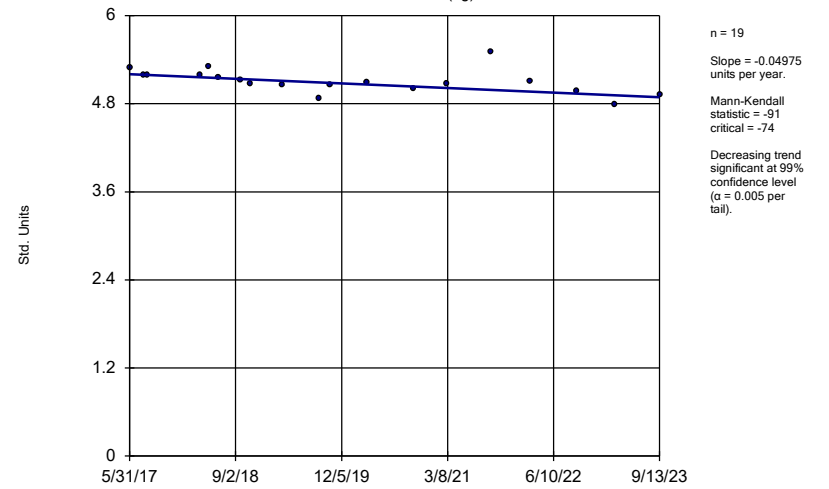
MCM-07



Constituent: pH, field Analysis Run 11/17/2023 2:57 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

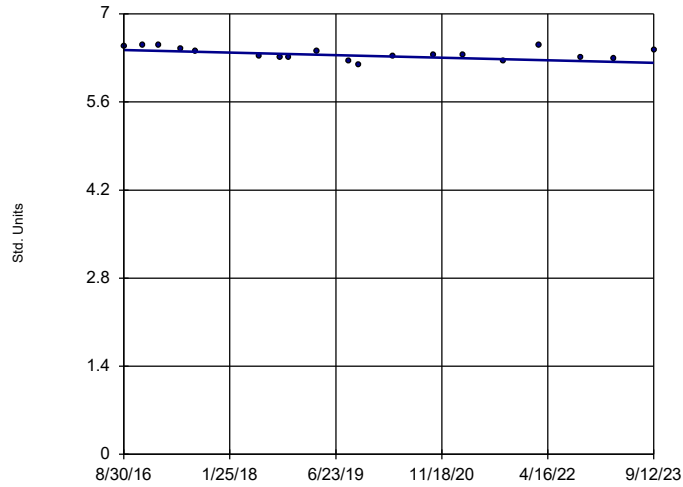
MCM-11 (bg)



Constituent: pH, field Analysis Run 11/17/2023 2:57 PM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-12

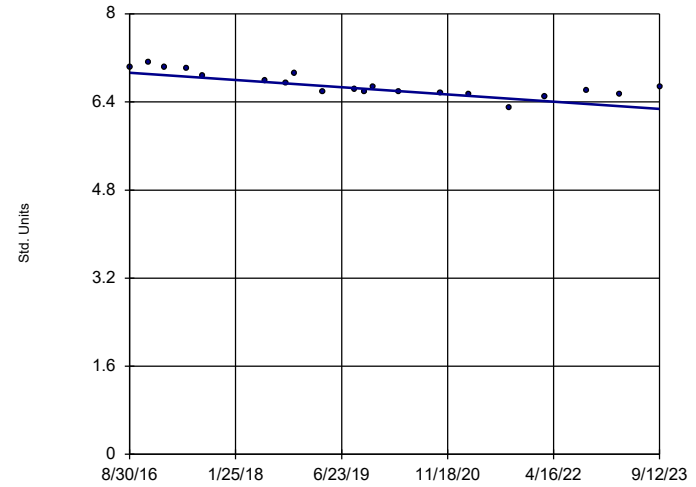


n = 19
 Slope = -0.02929 units per year.
 Mann-Kendall statistic = -54
 critical = -74
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, field Analysis Run 11/17/2023 2:57 PM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-14

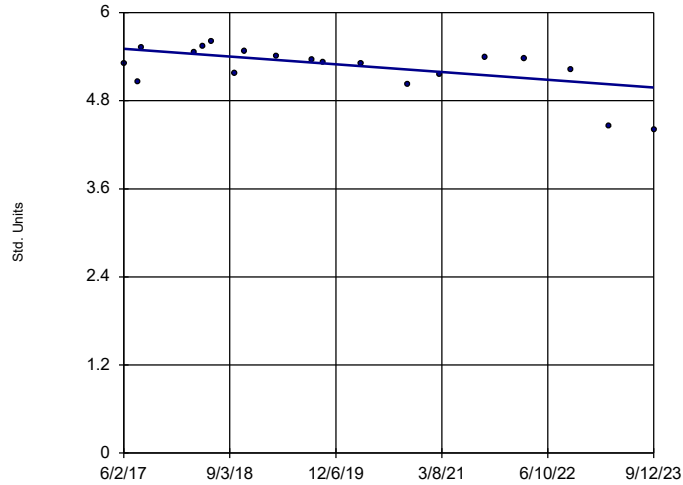


n = 20
 Slope = -0.09264 units per year.
 Mann-Kendall statistic = -129
 critical = -81
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, field Analysis Run 11/17/2023 2:57 PM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-15 (bg)

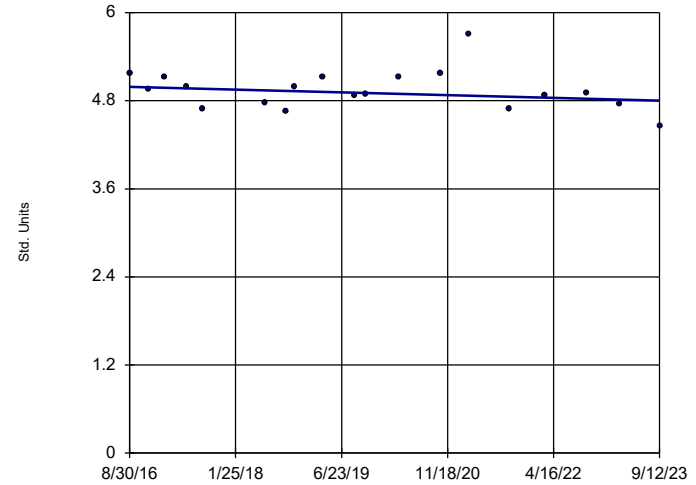


n = 19
 Slope = -0.08426 units per year.
 Mann-Kendall statistic = -69
 critical = -74
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, field Analysis Run 11/17/2023 2:57 PM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-16 (bg)

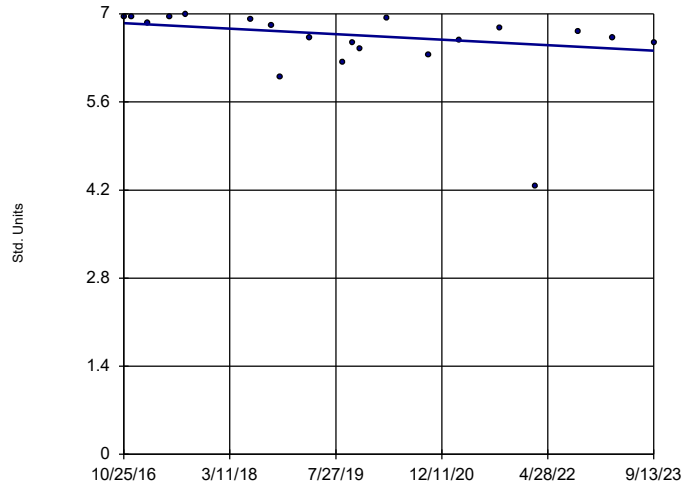


n = 19
 Slope = -0.02704 units per year.
 Mann-Kendall statistic = -32
 critical = -74
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, field Analysis Run 11/17/2023 2:57 PM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-17

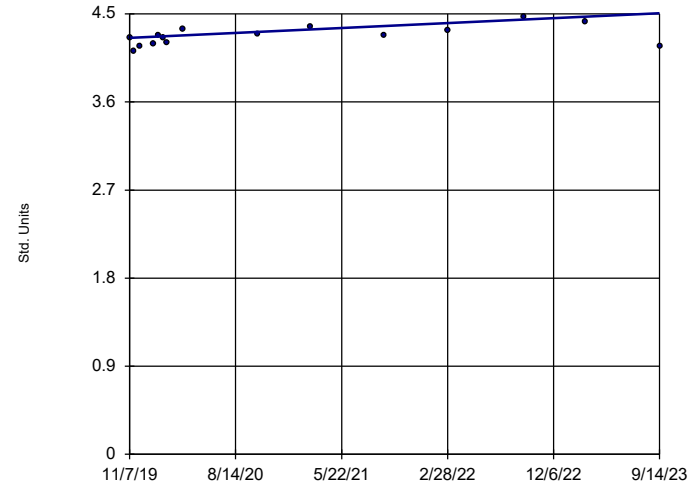


n = 20
 Slope = -0.06345 units per year.
 Mann-Kendall statistic = -74
 critical = -81
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, field Analysis Run 11/17/2023 2:57 PM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-18 (bg)

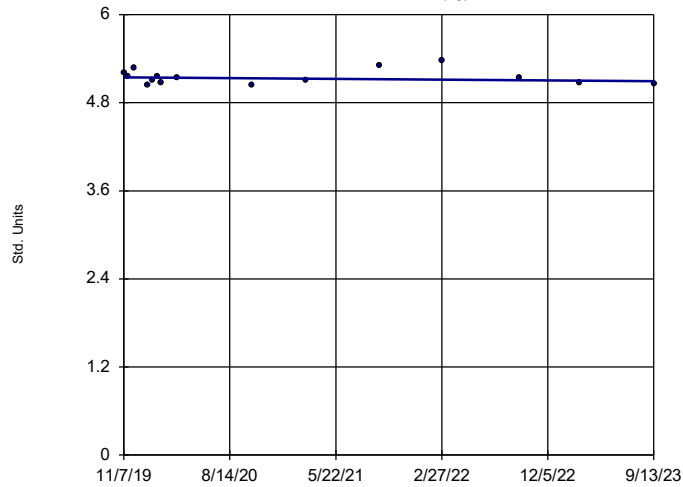


n = 15
 Slope = 0.06526 units per year.
 Mann-Kendall statistic = 51
 critical = 53
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, field Analysis Run 11/17/2023 2:57 PM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-19 (bg)

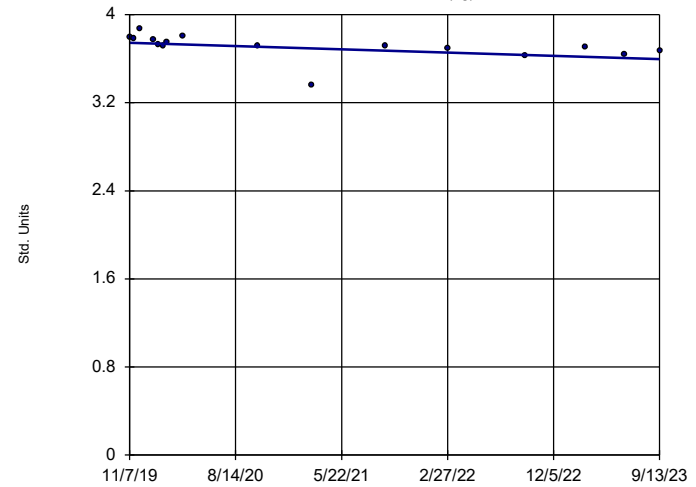


n = 15
 Slope = -0.01371 units per year.
 Mann-Kendall statistic = -15
 critical = -53
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, field Analysis Run 11/17/2023 2:57 PM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-20 (bg)



n = 16
 Slope = -0.03841 units per year.
 Mann-Kendall statistic = -75
 critical = -58
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, field Analysis Run 11/17/2023 2:57 PM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

FIGURE F.

Welch's t-test/Mann-Whitney - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/20/2023, 2:53 PM

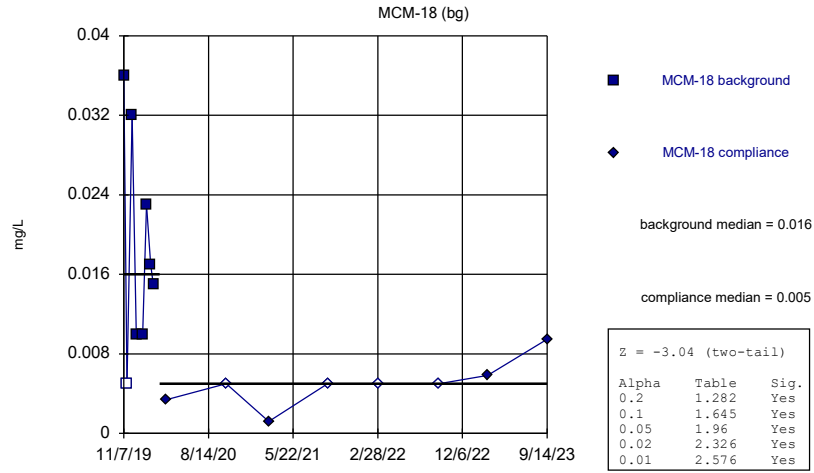
<u>Constituent</u>	<u>Well</u>	<u>Calc.</u>	<u>0.01</u>	<u>Alpha</u>	<u>Method</u>
Selenium (mg/L)	MCM-18 (bg)	-3.04	Yes	0.01	Mann-W
Selenium (mg/L)	MCM-19 (bg)	-3.311	Yes	0.01	Mann-W
Selenium (mg/L)	MCM-20 (bg)	-3.416	Yes	0.01	Mann-W

Welch's t-test/Mann-Whitney - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/20/2023, 2:53 PM

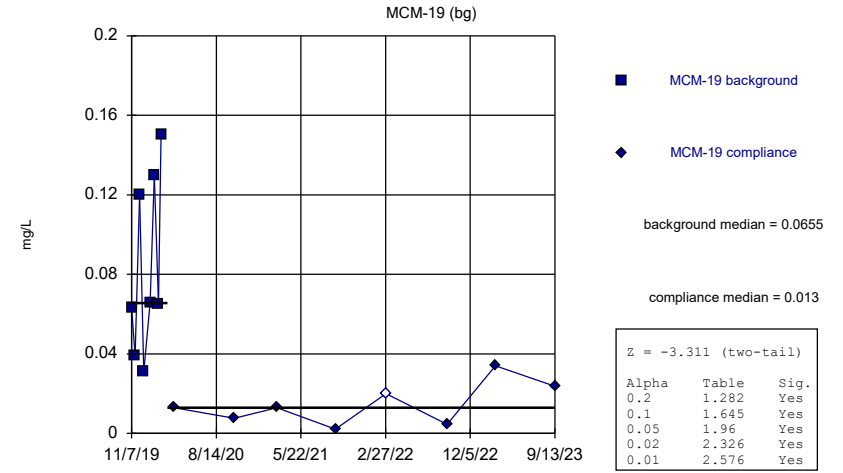
<u>Constituent</u>	<u>Well</u>	<u>Calc.</u>	<u>0.01</u>	<u>Alpha</u>	<u>Method</u>
Selenium (mg/L)	MCM-18 (bg)	-3.04	Yes	0.01	Mann-W
Selenium (mg/L)	MCM-19 (bg)	-3.311	Yes	0.01	Mann-W
Selenium (mg/L)	MCM-20 (bg)	-3.416	Yes	0.01	Mann-W

Mann-Whitney (Wilcoxon Rank Sum)



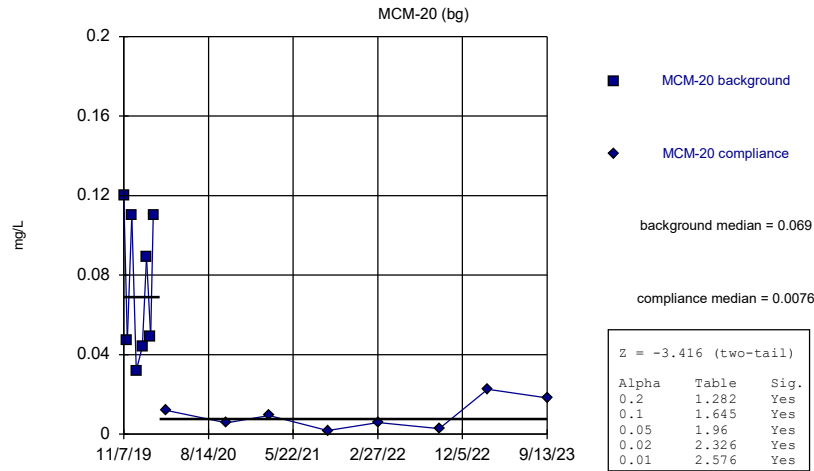
Constituent: Selenium Analysis Run 11/20/2023 2:52 PM View: Mann-Whitney
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Selenium Analysis Run 11/20/2023 2:52 PM View: Mann-Whitney
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Selenium Analysis Run 11/20/2023 2:52 PM View: Mann-Whitney
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Selenium (mg/L) Analysis Run 11/20/2023 2:53 PM View: Mann-Whitney

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-18	MCM-18
11/7/2019	0.036	
11/18/2019	<0.005	
12/5/2019	0.032	
12/18/2019	0.01	
1/9/2020	0.01	
1/21/2020	0.023 (J)	
2/4/2020	0.017 (J)	
2/13/2020	0.015	
3/27/2020		0.0034 (J)
10/12/2020		<0.005
3/3/2021		0.0012 (J)
9/14/2021		<0.005
3/2/2022		<0.005
9/20/2022		<0.005
2/28/2023		0.00583 (J)
9/14/2023		0.00948

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Selenium (mg/L) Analysis Run 11/20/2023 2:53 PM View: Mann-Whitney
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-19	MCM-19
11/7/2019	0.063	
11/19/2019	0.039 (J)	
12/4/2019	0.12	
12/17/2019	0.031 (J)	
1/8/2020	0.066	
1/21/2020	0.13	
2/4/2020	0.065 (J)	
2/13/2020	0.15	
3/27/2020		0.013
10/13/2020		0.0076 (J)
3/3/2021		0.013 (J)
9/14/2021		0.0022 (J)
3/1/2022		<0.04
9/20/2022		0.0046 (J)
2/28/2023		0.034 (J)
9/13/2023		0.0237

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Selenium (mg/L) Analysis Run 11/20/2023 2:53 PM View: Mann-Whitney

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-20	MCM-20
11/7/2019	0.12	
11/19/2019	0.047 (J)	
12/4/2019	0.11	
12/18/2019	0.032 (J)	
1/8/2020	0.044 (J)	
1/21/2020	0.089	
2/4/2020	0.049 (J)	
2/13/2020	0.11	
3/27/2020		0.012
10/13/2020		0.0056 (J)
3/3/2021		0.0094 (J)
9/14/2021		0.0018 (J)
3/1/2022		0.0058 (J)
9/20/2022		0.0027 (J)
2/28/2023		0.0225 (J)
9/13/2023		0.0182

FIGURE G.

Upper Tolerance Limits Summary Table

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/20/2023, 12:42 PM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bq N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	0.003	n/a	n/a	n/a	n/a	123	95.93	n/a	0.00182	NP Inter(NDs)
Arsenic (mg/L)	0.032	n/a	n/a	n/a	n/a	143	14.69	n/a	0.0006523	NP Inter(normality)
Barium (mg/L)	0.22	n/a	n/a	n/a	n/a	139	0	n/a	0.0008009	NP Inter(normality)
Beryllium (mg/L)	0.021	n/a	n/a	n/a	n/a	138	28.26	n/a	0.0008431	NP Inter(normality)
Cadmium (mg/L)	0.0043	n/a	n/a	n/a	n/a	116	93.1	n/a	0.002606	NP Inter(NDs)
Chromium (mg/L)	0.011	n/a	n/a	n/a	n/a	123	53.66	n/a	0.00182	NP Inter(NDs)
Cobalt (mg/L)	0.036	n/a	n/a	n/a	n/a	138	73.19	n/a	0.0008431	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	34.9	n/a	n/a	n/a	n/a	129	0	n/a	0.001338	NP Inter(normality)
Fluoride (mg/L)	3.98	n/a	n/a	n/a	n/a	142	49.3	n/a	0.0006867	NP Inter(normality)
Lead (mg/L)	0.005	n/a	n/a	n/a	n/a	138	84.06	n/a	0.0008431	NP Inter(NDs)
Lithium (mg/L)	0.0493	n/a	n/a	n/a	n/a	135	55.56	n/a	0.0009833	NP Inter(NDs)
Mercury (mg/L)	0.0007	n/a	n/a	n/a	n/a	117	95.73	n/a	0.002475	NP Inter(NDs)
Molybdenum (mg/L)	0.01	n/a	n/a	n/a	n/a	122	87.7	n/a	0.001915	NP Inter(NDs)
Selenium (mg/L)	0.034	n/a	n/a	n/a	n/a	115	73.91	n/a	0.002743	NP Inter(NDs)
Thallium (mg/L)	0.002	n/a	n/a	n/a	n/a	122	93.44	n/a	0.001915	NP Inter(NDs)

FIGURE H.

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		34.9	34.9
Fluoride, Total (mg/L)	4		3.98	4
Lead, Total (mg/L)	n/a	0.015	0.005	0.015
Lithium, Total (mg/L)	n/a	0.04	0.049	0.049
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		0.034	0.05
Thallium, Total (mg/L)	0.002		0.002	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 I.

Confidence Intervals Summary Table - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/20/2023, 2:30 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	MCM-06	0.3803	0.22	0.032	Yes 24	0	None	No	0.01	Param.
Lithium (mg/L)	DPZ-02	0.09535	0.07834	0.049	Yes 9	11.11	None	x^5	0.01	Param.
Lithium (mg/L)	MCM-06	0.09179	0.05396	0.049	Yes 19	0	None	No	0.01	Param.

Confidence Intervals Summary Table - All Results

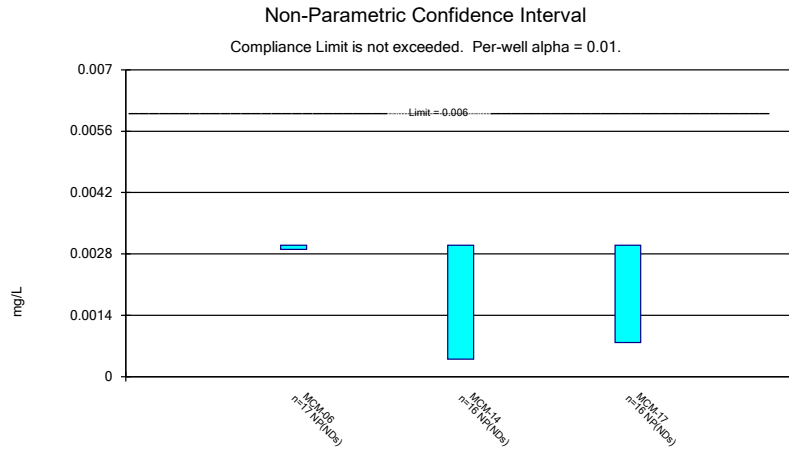
Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/20/2023, 2:30 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	MCM-06	0.003	0.0029	0.006	No	17	82.35	None	No	0.01	NP (NDs)
Antimony (mg/L)	MCM-14	0.003	0.0004	0.006	No	16	93.75	None	No	0.01	NP (NDs)
Antimony (mg/L)	MCM-17	0.003	0.00078	0.006	No	16	93.75	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DPZ-02	0.0254	0.017	0.032	No	10	10	None	No	0.011	NP (normality)
Arsenic (mg/L)	MCM-04	0.006731	0.002945	0.032	No	19	0	None	x^(1/3)	0.01	Param.
Arsenic (mg/L)	MCM-05	0.01676	0.005909	0.032	No	21	14.29	None	sqrt(x)	0.01	Param.
Arsenic (mg/L)	MCM-06	0.3803	0.22	0.032	Yes	24	0	None	No	0.01	Param.
Arsenic (mg/L)	MCM-07	0.01953	0.01114	0.032	No	21	0	None	No	0.01	Param.
Arsenic (mg/L)	MCM-12	0.01	0.0011	0.032	No	18	55.56	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MCM-14	0.0063	0.00201	0.032	No	18	50	None	No	0.01	NP (normality)
Arsenic (mg/L)	MCM-17	0.0063	0.0018	0.032	No	19	42.11	None	No	0.01	NP (normality)
Barium (mg/L)	DPZ-02	0.08835	0.05748	2	No	7	0	None	No	0.01	Param.
Barium (mg/L)	MCM-04	0.082	0.029	2	No	18	0	None	No	0.01	NP (normality)
Barium (mg/L)	MCM-05	0.0393	0.0097	2	No	19	0	None	No	0.01	NP (normality)
Barium (mg/L)	MCM-06	0.1282	0.06067	2	No	19	0	None	No	0.01	Param.
Barium (mg/L)	MCM-07	0.2	0.0982	2	No	18	0	None	No	0.01	NP (normality)
Barium (mg/L)	MCM-12	0.1217	0.0922	2	No	18	0	None	No	0.01	Param.
Barium (mg/L)	MCM-14	0.118	0.05426	2	No	18	0	None	No	0.01	Param.
Barium (mg/L)	MCM-17	0.1262	0.06759	2	No	18	0	None	No	0.01	Param.
Beryllium (mg/L)	MCM-04	0.0003821	0.0001897	0.021	No	18	44.44	Kaplan-Meier	No	0.01	Param.
Beryllium (mg/L)	MCM-05	0.0005	0.000054	0.021	No	19	94.74	Kaplan-Meier	No	0.01	NP (NDs)
Beryllium (mg/L)	MCM-07	0.0005	0.00012	0.021	No	18	83.33	Kaplan-Meier	No	0.01	NP (NDs)
Beryllium (mg/L)	MCM-12	0.001279	0.0005967	0.021	No	18	11.11	None	sqrt(x)	0.01	Param.
Beryllium (mg/L)	MCM-14	0.0005	0.0001	0.021	No	18	72.22	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MCM-17	0.002	0.0002	0.021	No	18	33.33	None	No	0.01	NP (normality)
Cadmium (mg/L)	MCM-04	0.0025	0.00043	0.005	No	15	93.33	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MCM-07	0.0025	0.0002	0.005	No	15	93.33	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MCM-17	0.0025	0.000093	0.005	No	15	93.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	MCM-04	0.01	0.0012	0.1	No	16	50	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-05	0.01	0.0007	0.1	No	16	56.25	None	No	0.01	NP (NDs)
Chromium (mg/L)	MCM-06	0.01	0.0011	0.1	No	17	70.59	None	No	0.01	NP (NDs)
Chromium (mg/L)	MCM-07	0.01	0.0022	0.1	No	16	43.75	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-12	0.01	0.005	0.1	No	16	31.25	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-14	0.01	0.0015	0.1	No	16	50	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-17	0.01153	0.00697	0.1	No	16	25	Kaplan-Meier	No	0.01	Param.
Cobalt (mg/L)	MCM-04	0.0063	0.0025	0.036	No	19	36.84	None	No	0.01	NP (normality)
Cobalt (mg/L)	MCM-05	0.0025	0.0019	0.036	No	19	89.47	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-06	0.0025	0.0009	0.036	No	19	89.47	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-07	0.0025	0.0011	0.036	No	18	88.89	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-12	0.0025	0.0005	0.036	No	18	55.56	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-14	0.0025	0.0006	0.036	No	18	94.44	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-17	0.0025	0.0007	0.036	No	18	77.78	None	No	0.01	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	DPZ-02	11.13	6.418	34.9	No	6	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-04	5.288	2.889	34.9	No	18	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-05	3.275	1.566	34.9	No	19	0	None	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-06	8.11	1.83	34.9	No	18	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MCM-07	9.172	5.877	34.9	No	19	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-12	3.067	2.195	34.9	No	18	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-14	7.282	3.803	34.9	No	19	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-17	6.648	3.323	34.9	No	19	0	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	DPZ-02	0.11	0.1	4	No	7	85.71	None	No	0.008	NP (NDs)
Fluoride (mg/L)	MCM-04	0.12	0.0941	4	No	19	52.63	None	No	0.01	NP (NDs)
Fluoride (mg/L)	MCM-05	0.5235	0.2691	4	No	21	14.29	None	No	0.01	Param.
Fluoride (mg/L)	MCM-06	0.2384	0.08611	4	No	20	45	Kaplan-Meier	ln(x)	0.01	Param.
Fluoride (mg/L)	MCM-07	0.44	0.1	4	No	20	40	None	No	0.01	NP (normality)

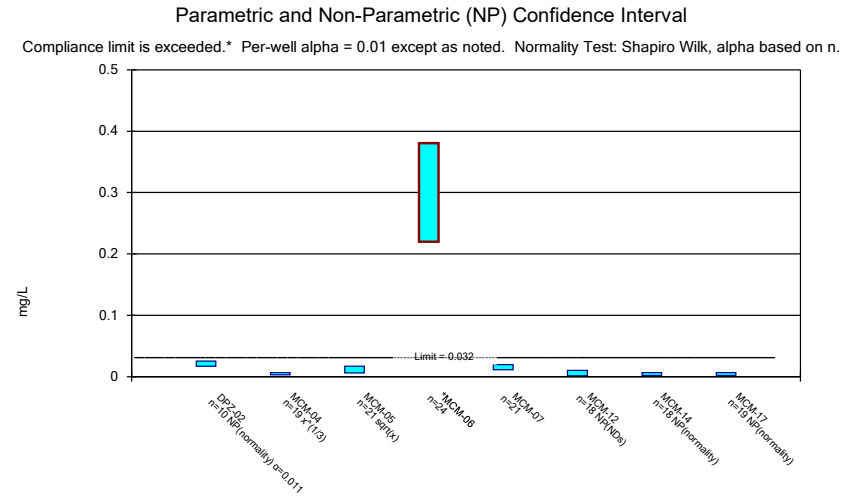
Confidence Intervals Summary Table - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/20/2023, 2:30 PM

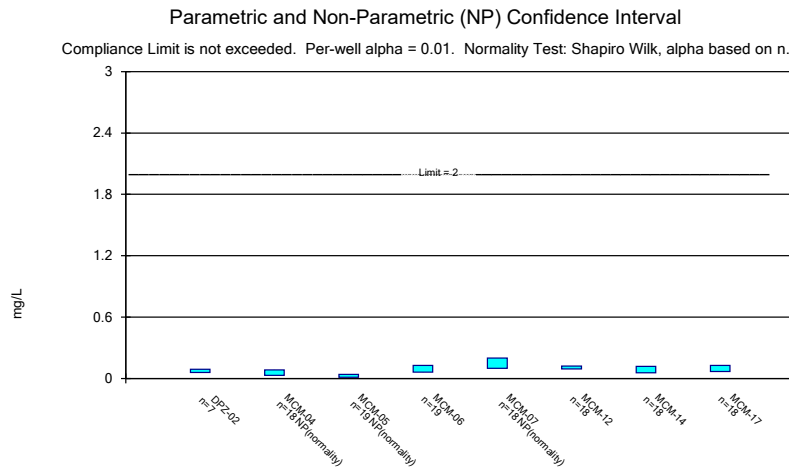
Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	ND Adj.	Transform	Alpha	Method
Fluoride (mg/L)	MCM-12	1.28	1.019	4	No	19	5.263	None	x^2	0.01	Param.
Fluoride (mg/L)	MCM-14	0.45	0.1	4	No	20	55	None	No	0.01	NP (NDs)
Fluoride (mg/L)	MCM-17	1.2	0.1	4	No	20	35	None	No	0.01	NP (normality)
Lead (mg/L)	MCM-05	0.005	0.0002	0.015	No	19	94.74	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-06	0.005	0.00012	0.015	No	19	94.74	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-07	0.005	0.0002	0.015	No	18	83.33	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-12	0.005	0.00022	0.015	No	18	72.22	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-14	0.005	0.00008	0.015	No	18	94.44	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-17	0.005	0.00034	0.015	No	18	77.78	None	No	0.01	NP (NDs)
Lithium (mg/L)	DPZ-02	0.09535	0.07834	0.049	Yes	9	11.11	None	x^5	0.01	Param.
Lithium (mg/L)	MCM-04	0.025	0.0017	0.049	No	18	55.56	None	No	0.01	NP (NDs)
Lithium (mg/L)	MCM-05	0.0376	0.021	0.049	No	19	0	None	No	0.01	NP (normality)
Lithium (mg/L)	MCM-06	0.09179	0.05396	0.049	Yes	19	0	None	No	0.01	Param.
Lithium (mg/L)	MCM-07	0.039	0.02	0.049	No	19	0	None	No	0.01	NP (normality)
Lithium (mg/L)	MCM-12	0.013	0.0104	0.049	No	18	16.67	None	No	0.01	NP (normality)
Lithium (mg/L)	MCM-14	0.04633	0.02854	0.049	No	19	5.263	None	x^2	0.01	Param.
Lithium (mg/L)	MCM-17	0.02643	0.01631	0.049	No	18	5.556	None	No	0.01	Param.
Mercury (mg/L)	MCM-04	0.00071	0.0002	0.002	No	15	93.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-05	0.0002	0.000042	0.002	No	15	93.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-06	0.0002	0.00016	0.002	No	16	93.75	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-07	0.00067	0.0002	0.002	No	15	93.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-14	0.00066	0.0002	0.002	No	15	93.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-17	0.00064	0.000036	0.002	No	15	86.67	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	DPZ-02	0.01	0.000245	0.1	No	5	80	None	No	0.031	NP (NDs)
Molybdenum (mg/L)	MCM-04	0.01	0.00015	0.1	No	16	93.75	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-05	0.01	0.00095	0.1	No	16	68.75	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-06	0.01	0.00131	0.1	No	17	58.82	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-07	0.01	0.000963	0.1	No	16	81.25	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-12	0.01	0.000423	0.1	No	16	87.5	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-17	0.01	0.0019	0.1	No	16	81.25	None	No	0.01	NP (NDs)
Selenium (mg/L)	DPZ-02	0.025	0.00205	0.05	No	7	85.71	None	No	0.008	NP (NDs)
Selenium (mg/L)	MCM-04	0.005	0.0025	0.05	No	18	83.33	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-05	0.005	0.0028	0.05	No	19	78.95	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-06	0.0054	0.0022	0.05	No	19	57.89	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-07	0.005	0.00238	0.05	No	18	55.56	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-12	0.005	0.0019	0.05	No	18	55.56	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-14	0.0057	0.0025	0.05	No	18	66.67	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-17	0.0067	0.00184	0.05	No	18	50	None	No	0.01	NP (normality)
Thallium (mg/L)	MCM-06	0.002	0.000076	0.002	No	17	94.12	None	No	0.01	NP (NDs)
Thallium (mg/L)	MCM-17	0.002	0.00014	0.002	No	16	93.75	None	No	0.01	NP (NDs)



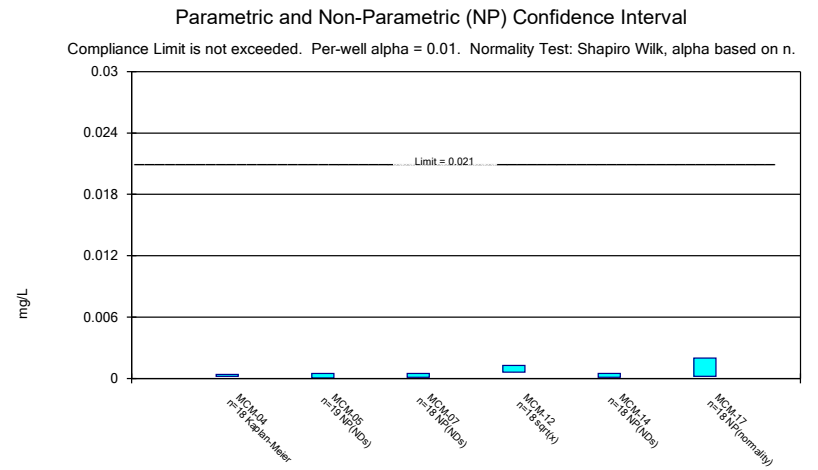
Constituent: Antimony Analysis Run 11/20/2023 2:27 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data



Constituent: Arsenic Analysis Run 11/20/2023 2:27 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data



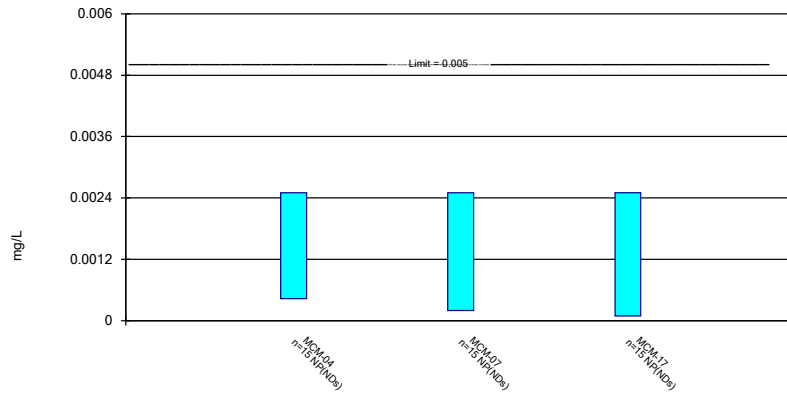
Constituent: Barium Analysis Run 11/20/2023 2:27 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data



Constituent: Beryllium Analysis Run 11/20/2023 2:27 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Non-Parametric Confidence Interval

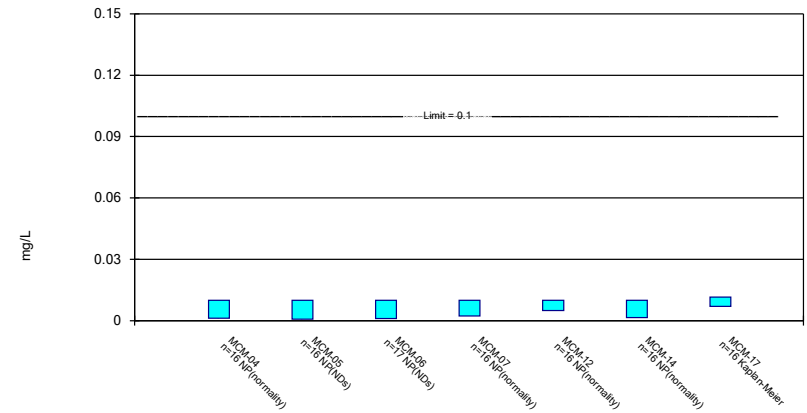
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Cadmium Analysis Run 11/20/2023 2:27 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Parametric and Non-Parametric (NP) Confidence Interval

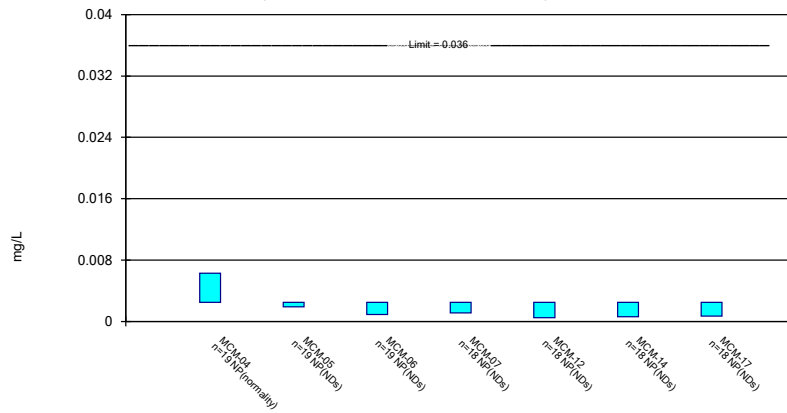
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 11/20/2023 2:27 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Non-Parametric Confidence Interval

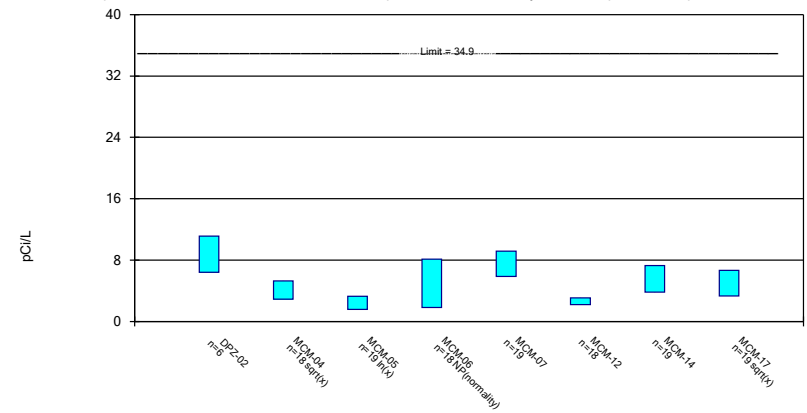
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Cobalt Analysis Run 11/20/2023 2:27 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Parametric and Non-Parametric (NP) Confidence Interval

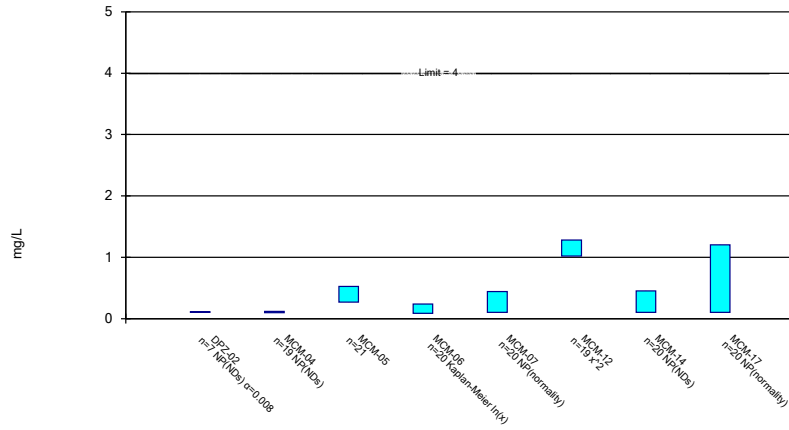
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 11/20/2023 2:27 PM View: Appendix IV - Confide
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Parametric and Non-Parametric (NP) Confidence Interval

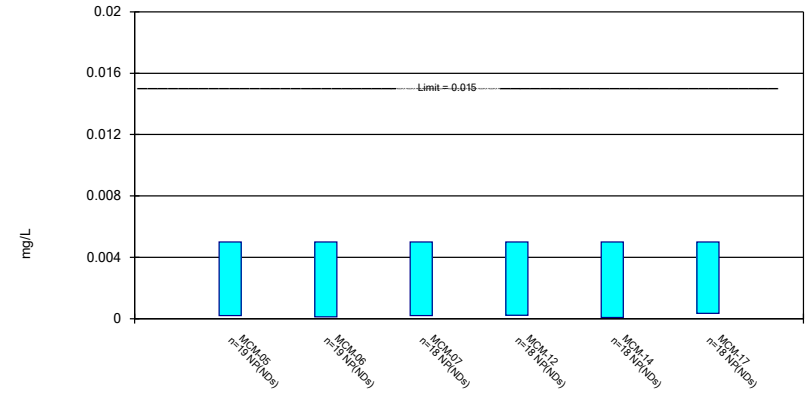
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 11/20/2023 2:27 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Non-Parametric Confidence Interval

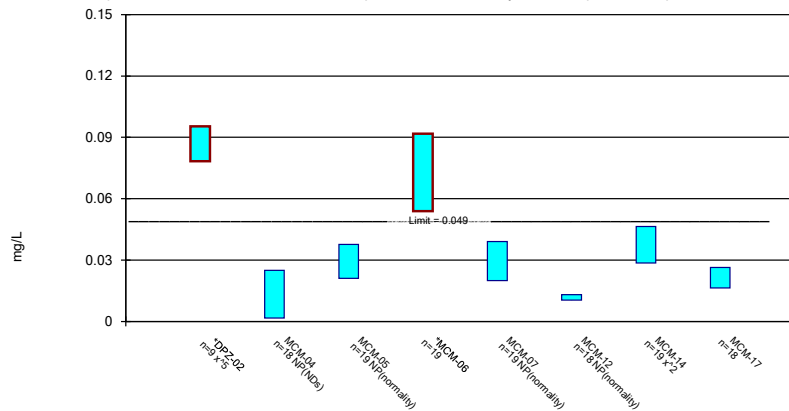
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 11/20/2023 2:27 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Parametric and Non-Parametric (NP) Confidence Interval

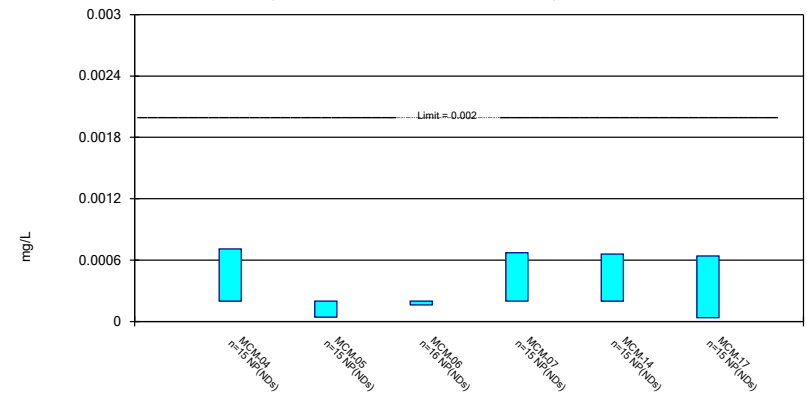
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 11/20/2023 2:27 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Non-Parametric Confidence Interval

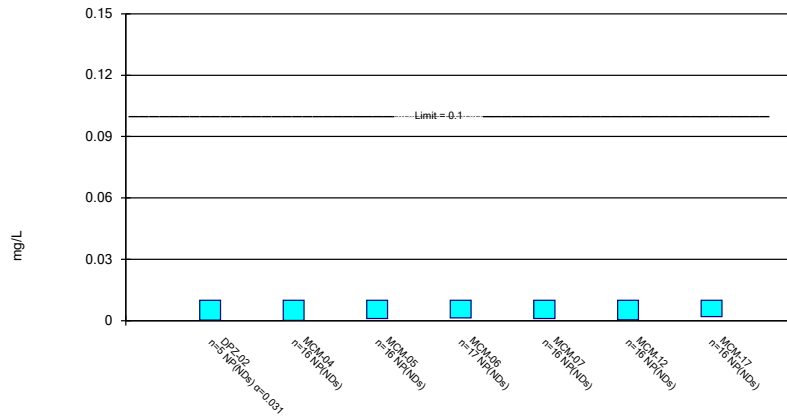
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 11/20/2023 2:27 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Non-Parametric Confidence Interval

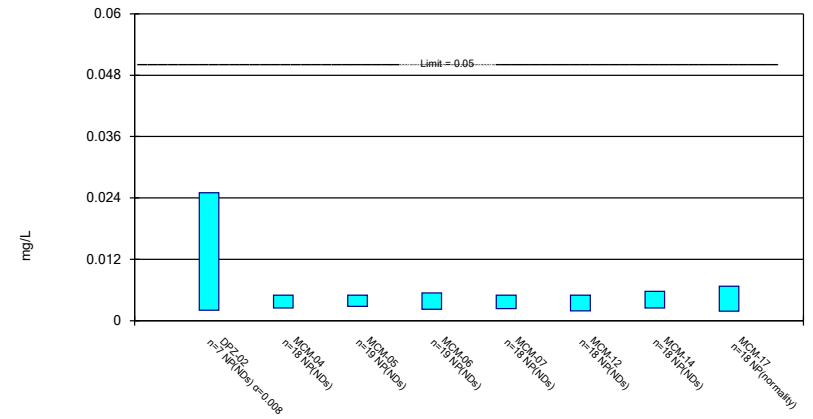
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Molybdenum Analysis Run 11/20/2023 2:27 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Non-Parametric Confidence Interval

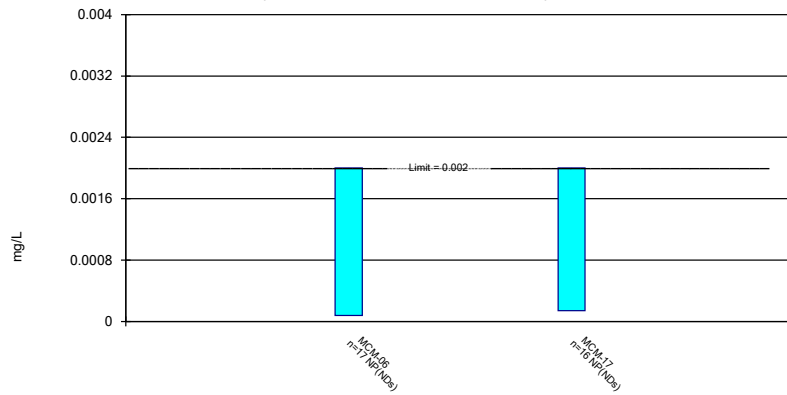
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Selenium Analysis Run 11/20/2023 2:27 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: Thallium Analysis Run 11/20/2023 2:27 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 11/20/2023 2:30 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
2/28/2023			<0.003
3/2/2023	<0.003	<0.003	
9/12/2023		<0.003	
9/13/2023			<0.003
9/14/2023	<0.003		
Mean	0.002752	0.002838	0.002861
Std. Dev.	0.0006825	0.00065	0.000555
Upper Lim.	0.003	0.003	0.003
Lower Lim.	0.0029	0.0004	0.00078

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 11/20/2023 2:30 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						<0.01	<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	<0.01	<0.0063	0.0072
2/15/2017						<0.01	<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						<0.01	<0.0063	<0.0063
3/28/2020	<0.1	0.0034 (J)	<0.02	0.3	0.012			
10/12/2020						<0.01		
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						<0.01	<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						<0.01	<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				<0.01	<0.0063	<0.0063
6/28/2022	0.025			0.17				
9/20/2022	0.021			0.18				
9/21/2022		0.0017 (J)	0.0077		0.01	<0.01	<0.0063	<0.0063

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 11/20/2023 2:30 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
2/28/2023						<0.01		0.00226 (J)
3/1/2023		0.00247 (J)						
3/2/2023	0.0202		0.00578 (J)	0.0764	0.014		0.00201 (J)	
6/13/2023	0.0213							
6/14/2023				0.0607				
9/12/2023			0.0113			0.00234 (J)	0.00263 (J)	
9/13/2023		0.00601			0.0117			0.00283 (J)
9/14/2023	0.0254			0.0653				
Mean	0.02379	0.005331	0.01281	0.3002	0.01533	0.006386	0.00458	0.00431
Std. Dev.	0.009731	0.003935	0.01105	0.157	0.007603	0.004298	0.00232	0.00214
Upper Lim.	0.0254	0.006731	0.01676	0.3803	0.01953	0.01	0.0063	0.0063
Lower Lim.	0.017	0.002945	0.005909	0.22	0.01114	0.0011	0.00201	0.0018

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 11/20/2023 2:30 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
2/28/2023						0.071 (J)		0.0828 (J)
3/1/2023		0.031 (J)						
3/2/2023	0.0601 (J)		0.0133 (J)	0.0195 (J)	0.0982 (J)		0.0356 (J)	
9/12/2023			0.0257			0.074	0.0306	
9/13/2023		0.0358			0.0745			0.0706

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 11/20/2023 2:30 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
9/14/2023	0.0583			0.0456				
Mean	0.07291	0.06388	0.04507	0.09445	0.1508	0.1069	0.08613	0.09691
Std. Dev.	0.013	0.06786	0.09976	0.0577	0.0902	0.02437	0.05268	0.04845
Upper Lim.	0.08835	0.082	0.0393	0.1282	0.2	0.1217	0.118	0.1262
Lower Lim.	0.05748	0.029	0.0097	0.06067	0.0982	0.0922	0.05426	0.06759

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 11/20/2023 2:30 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)	<0.0005	
8/31/2016		<0.0005	<0.0005			
10/25/2016						0.0004 (J)
11/30/2016		<0.0005	<0.0005	0.0004 (J)	<0.0005	0.0003 (J)
2/15/2017				0.0004 (J)	<0.0005	<0.002
2/16/2017		<0.0005	<0.0005			
5/31/2017				0.0005 (J)	0.0001 (J)	0.0002 (J)
6/1/2017	0.0001 (J)					
6/2/2017		<0.0005	<0.0005			
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)	<0.0005	<0.0005			
4/4/2018	<0.0005					
5/8/2018	0.00025 (J)					
6/19/2018				0.00065 (J)	<0.0005	0.00032 (J)
6/20/2018	0.00021 (J)	<0.0005				
6/21/2018			<0.0005			
9/25/2018				0.00066 (J)	5E-05 (J)	
9/26/2018						0.00024 (J)
9/27/2018	0.00031 (J)	<0.0005	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		<0.0005	<0.0005			
10/15/2019	0.00035 (J)			0.00079 (J)	<0.0005	
10/16/2019		<0.0005				0.00014 (J)
10/17/2019			7.8E-05 (J)			
3/27/2020				<0.005	<0.0005	<0.002
3/28/2020	<0.0005	<0.0005	<0.0005			
10/12/2020				0.001 (J)		
10/13/2020	<0.0005				<0.0005	<0.002
10/14/2020			<0.0005			
10/15/2020		<0.0005				
1/4/2021		<0.0005				
3/2/2021				<0.005	<0.0005	
3/3/2021						<0.002
3/4/2021	<0.0005	<0.0005	<0.0005			
9/13/2021				0.0011	<0.0005	
9/14/2021	<0.0005	<0.0005	<0.0005			<0.002
3/1/2022		<0.0005				
3/2/2022			<0.0005			
3/3/2022	0.00025			0.0012 (J)	<0.0005	<0.002
9/21/2022	<0.0005	<0.0005	<0.0005	0.0011 (J)	<0.0005	0.00029 (J)
2/28/2023				0.00135 (J)		0.000279 (J)
3/1/2023	<0.0005					
3/2/2023		<0.0005	<0.0005		<0.0005	
9/12/2023		<0.0005		0.00137	<0.0005	
9/13/2023	<0.0005		<0.0005			0.000249 (J)
Mean	0.0003922	0.0004765	0.0004318	0.0009889	0.0003915	0.0008366
Std. Dev.	0.0001634	0.0001023	0.0001572	0.0006415	0.000182	0.0008484

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 11/20/2023 2:30 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
Upper Lim.	0.0003821	0.0005	0.0005	0.001279	0.0005	0.002
Lower Lim.	0.0001897	5.4E-05	0.00012	0.0005967	0.0001	0.0002

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 11/20/2023 2:30 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
2/28/2023			<0.0025
3/1/2023	<0.0025		
3/2/2023		<0.0025	
9/13/2023	<0.0025	<0.0025	<0.0025
Mean	0.002362	0.002347	0.00234
Std. Dev.	0.0005345	0.0005939	0.0006215
Upper Lim.	0.0025	0.0025	0.0025
Lower Lim.	0.00043	0.0002	9.3E-05

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 11/20/2023 2:30 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)
2/28/2023					0.00663 (J)		0.00623 (J)
3/1/2023	<0.01						
3/2/2023		<0.01	<0.01	<0.01		<0.01	
9/12/2023		<0.01			0.00703 (J)	<0.01	
9/13/2023	<0.01			<0.01			0.00608 (J)
9/14/2023			<0.01				
Mean	0.005647	0.006065	0.007362	0.005681	0.007172	0.005798	0.01007
Std. Dev.	0.004503	0.004616	0.004216	0.00394	0.002164	0.004361	0.00324
Upper Lim.	0.01	0.01	0.01	0.01	0.01	0.01	0.01153
Lower Lim.	0.0012	0.0007	0.0011	0.0022	0.005	0.0015	0.00697

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 11/20/2023 2:30 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)
2/28/2023					0.00052 (J)		<0.0025
3/1/2023	0.00256 (J)						
3/2/2023		<0.0025	<0.0025	<0.0025		<0.0025	
9/12/2023		<0.0025			0.000429 (J)	<0.0025	

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 11/20/2023 2:30 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
9/13/2023	0.00341			<0.0025			<0.0025
9/14/2023			<0.0025				
Mean	0.004356	0.002351	0.0023	0.002301	0.001619	0.002394	0.002048
Std. Dev.	0.002241	0.0005246	0.0006074	0.0005961	0.001015	0.0004478	0.0008732
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	0.0005	0.0006	0.0007

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/20/2023 2:30 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
2/28/2023						2.29		5.48
3/1/2023		5.05						
3/2/2023	9.42		2.22	1.79	4.5		8.08	
9/12/2023			4.42			3.43	5.46	
9/13/2023		2.05			10.3			4.44
9/14/2023	11.7			3.61				

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/20/2023 2:30 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
Mean	8.775	4.231	2.781	4.914	7.524	2.631	5.543	5.237
Std. Dev.	1.715	2.214	2.081	3.167	2.814	0.7204	2.97	2.846
Upper Lim.	11.13	5.288	3.275	8.11	9.172	3.067	7.282	6.648
Lower Lim.	6.418	2.889	1.566	1.83	5.877	2.195	3.803	3.323

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 11/20/2023 2:30 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
2/28/2023						1.21 (J)		0.815 (J)

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 11/20/2023 2:30 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
3/1/2023		<0.1						
3/2/2023	<0.1		0.388 (J)	0.419 (J)	0.44 (J)		0.188 (J)	
6/14/2023				<0.1				
9/12/2023			0.374 (J)			1.32 (J)	<0.1	
9/13/2023		0.0941 (J)			0.982 (J)			1.46 (J)
9/14/2023	<0.1			0.246 (J)				
Mean	0.1014	0.1293	0.3963	0.2457	0.3184	1.117	0.2106	0.5894
Std. Dev.	0.00378	0.1155	0.2306	0.2463	0.3093	0.3071	0.1838	0.5162
Upper Lim.	0.11	0.12	0.5235	0.2384	0.44	1.28	0.45	1.2
Lower Lim.	0.1	0.0941	0.2691	0.08611	0.1	1.019	0.1	0.1

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 11/20/2023 2:30 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
2/28/2023				<0.005		<0.005
3/2/2023	<0.005	<0.005	<0.005		<0.005	
9/12/2023	<0.005			<0.005	<0.005	
9/13/2023			<0.005			<0.005
9/14/2023		<0.005				
Mean	0.004747	0.004743	0.004188	0.003683	0.004727	0.003942
Std. Dev.	0.001101	0.00112	0.001869	0.002191	0.00116	0.002038
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.0002	0.00012	0.0002	0.00022	8E-05	0.00034

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 11/20/2023 2:30 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)
2/28/2023						0.0104 (J)		0.0257 (J)
3/1/2023		<0.025						

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 11/20/2023 2:30 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
3/2/2023	0.0919		0.0237 (J)	0.0361 (J)	0.0217 (J)		0.0218 (J)	
9/12/2023			0.0301			0.0115	0.0222	
9/13/2023		<0.025			0.027			0.037
9/14/2023	0.087			0.0551				
Mean	0.08138	0.01475	0.05647	0.07287	0.03937	0.01339	0.03465	0.02137
Std. Dev.	0.02637	0.0118	0.1246	0.0323	0.03362	0.005471	0.01719	0.008359
Upper Lim.	0.09535	0.025	0.0376	0.09179	0.039	0.013	0.04633	0.02643
Lower Lim.	0.07834	0.0017	0.021	0.05396	0.02	0.0104	0.02854	0.01631

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 11/20/2023 2:30 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
2/28/2023						<0.0002
3/1/2023	<0.0002					
3/2/2023		<0.0002	<0.0002	<0.0002	<0.0002	
9/12/2023		<0.0002			<0.0002	
9/13/2023	<0.0002			<0.0002		<0.0002
9/14/2023			<0.0002			
Mean	0.000234	0.0001895	0.0001975	0.0002313	0.0002307	0.0002184
Std. Dev.	0.0001317	4.08E-05	1E-05	0.0001214	0.0001188	0.000124
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

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 11/20/2023 2:30 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-17
8/30/2016						<0.01	
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	<0.01
2/15/2017						<0.01	<0.01
2/16/2017			<0.01	<0.01	<0.01		
5/31/2017						<0.01	<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	<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	<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
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)		<0.01 (D)	
3/6/2019				<0.01			
8/27/2019		<0.01				<0.01	<0.01
8/28/2019			<0.01	0.0017 (J)	<0.01		
10/15/2019		<0.01				<0.01	
10/16/2019			<0.01				<0.01
10/17/2019				0.0017 (J)	<0.01		
3/27/2020						<0.01	<0.01
3/28/2020		<0.01	<0.01	<0.01	<0.01		
9/13/2021						<0.01	
9/14/2021	<0.01	<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		
3/3/2022		0.00015 (J)				<0.01	<0.01
9/20/2022	<0.01			0.0013 (J)			
9/21/2022		<0.01	0.00095 (J)		0.00095 (J)	<0.01	<0.01
2/28/2023						0.000362 (J)	0.000313 (J)
3/1/2023		<0.01					
3/2/2023	0.000245 (J)		0.000852 (J)	0.00131 (J)	0.000963 (J)		
9/12/2023			0.000809 (J)			0.000423 (J)	
9/13/2023		<0.01			0.000847 (J)		0.000217 (J)
9/14/2023	<0.01			0.000839 (J)			
Mean	0.008049	0.009384	0.007732	0.006573	0.008297	0.008799	0.008277
Std. Dev.	0.004363	0.002462	0.004043	0.004238	0.00366	0.003282	0.003721
Upper Lim.	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Lower Lim.	0.000245	0.00015	0.00095	0.00131	0.000963	0.000423	0.0019

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 11/20/2023 2:30 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						0.0011 (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	<0.025		0.0028 (J)					
1/4/2021			<0.005					
3/2/2021						<0.005	<0.005	
3/3/2021								<0.005
3/4/2021	<0.025	0.00038 (J)	<0.005	<0.005	<0.005			
9/13/2021						<0.005	<0.005	
9/14/2021	<0.025	<0.005	<0.005	<0.005	<0.005			0.0021
3/1/2022	<0.025		<0.005	<0.005				
3/2/2022					<0.005			
3/3/2022		0.00012 (J)				<0.005	<0.005	<0.005
9/20/2022	<0.025			<0.005				
9/21/2022		<0.005	<0.005		<0.005	<0.005	<0.005	<0.005
2/28/2023						0.00157 (J)		0.00184 (J)
3/1/2023		<0.005						
3/2/2023	0.00205 (J)		<0.005	<0.005	0.00238 (J)		<0.005	
9/12/2023			<0.005			<0.005	<0.005	
9/13/2023		<0.005			<0.005			<0.005

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 11/20/2023 2:30 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
9/14/2023	<0.025			<0.005				
Mean	0.02172	0.004333	0.004426	0.004421	0.004121	0.003598	0.004239	0.004169
Std. Dev.	0.008674	0.001598	0.001152	0.00169	0.001271	0.001631	0.001396	0.001953
Upper Lim.	0.025	0.005	0.005	0.0054	0.005	0.005	0.0057	0.0067
Lower Lim.	0.00205	0.0025	0.0028	0.0022	0.00238	0.0019	0.0025	0.00184

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 11/20/2023 2:30 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-06	MCM-17
8/31/2016	<0.002	
10/25/2016		<0.002
11/30/2016	<0.002	<0.002
2/15/2017		<0.002
2/16/2017	<0.002	
5/31/2017		<0.002
6/2/2017	<0.002	
8/15/2017		<0.002
8/17/2017	<0.002	
6/19/2018		<0.002
6/20/2018	<0.002	
9/26/2018		0.00014
9/27/2018	<0.002	
11/6/2018		<0.002
11/7/2018	<0.002	
3/6/2019	<0.002	
8/27/2019		<0.002
8/28/2019	<0.002	
10/16/2019		<0.002
10/17/2019	7.6E-05 (J)	
3/27/2020		<0.002
3/28/2020	<0.002	
9/14/2021	<0.002	<0.002
3/1/2022	<0.002	
3/3/2022		<0.002
9/20/2022	<0.002	
9/21/2022		<0.002
2/28/2023		<0.002
3/2/2023	<0.002	
9/13/2023		<0.002
9/14/2023	<0.002	
Mean	0.001887	0.001884
Std. Dev.	0.0004666	0.000465
Upper Lim.	0.002	0.002
Lower Lim.	7.6E-05	0.00014

FIGURE J.

Appendix IV Trend Tests - Significant Result

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/17/2023, 3:16 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	MCM-06	-0.1166	-31	-23	Yes	10	0	n/a	n/a	0.05	NP

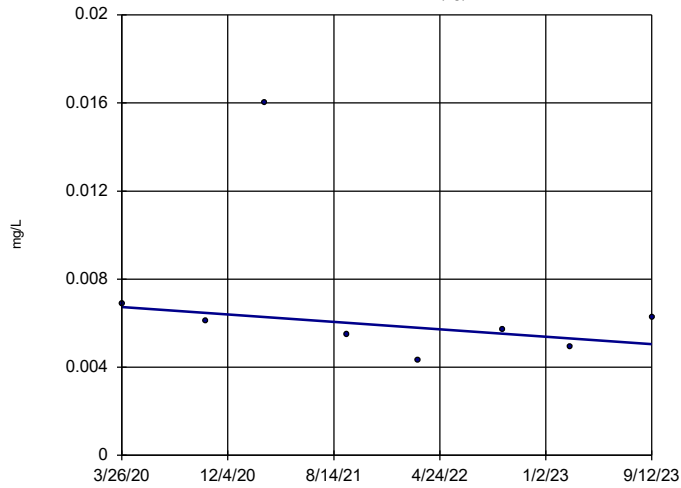
Appendix IV Trend Tests - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/17/2023, 3:16 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	MCM-01 (bg)	-0.0004866	-8	-17	No	8	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	MCM-02 (bg)	0	1	17	No	8	75	n/a	n/a	0.05	NP
Arsenic (mg/L)	MCM-06	-0.1166	-31	-23	Yes	10	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	MCM-11 (bg)	0.003122	17	17	No	8	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	MCM-15 (bg)	0.001101	10	17	No	8	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	MCM-16 (bg)	0	-2	-17	No	8	62.5	n/a	n/a	0.05	NP
Arsenic (mg/L)	MCM-18 (bg)	-0.0001213	-13	-37	No	14	14.29	n/a	n/a	0.05	NP
Arsenic (mg/L)	MCM-19 (bg)	0.0003176	7	37	No	14	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	MCM-20 (bg)	-0.0006308	-13	-41	No	15	0	n/a	n/a	0.05	NP
Lithium (mg/L)	DPZ-02	-0.002279	-14	-20	No	9	11.11	n/a	n/a	0.05	NP
Lithium (mg/L)	MCM-01 (bg)	0	-1	-17	No	8	87.5	n/a	n/a	0.05	NP
Lithium (mg/L)	MCM-02 (bg)	0	0	17	No	8	100	n/a	n/a	0.05	NP
Lithium (mg/L)	MCM-06	-0.02027	-16	-17	No	8	0	n/a	n/a	0.05	NP
Lithium (mg/L)	MCM-11 (bg)	0	-6	-17	No	8	62.5	n/a	n/a	0.05	NP
Lithium (mg/L)	MCM-15 (bg)	0	-1	-17	No	8	87.5	n/a	n/a	0.05	NP
Lithium (mg/L)	MCM-16 (bg)	0	-1	-17	No	8	87.5	n/a	n/a	0.05	NP
Lithium (mg/L)	MCM-18 (bg)	0	1	30	No	12	50	n/a	n/a	0.05	NP
Lithium (mg/L)	MCM-19 (bg)	0	5	37	No	14	7.143	n/a	n/a	0.05	NP
Lithium (mg/L)	MCM-20 (bg)	0.001851	27	37	No	14	0	n/a	n/a	0.05	NP

Sen's Slope Estimator

MCM-01 (bg)



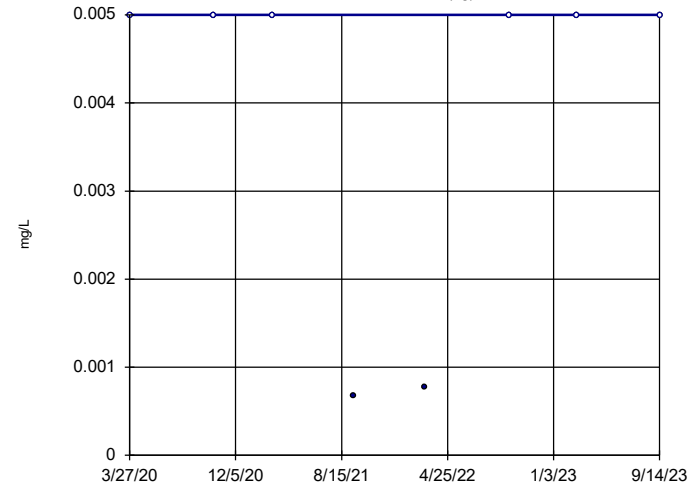
n = 8
 Slope = -0.0004866
 units per year.
 Mann-Kendall
 statistic = -8
 critical = -17
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Arsenic Analysis Run 11/17/2023 3:14 PM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Hollow symbols indicate censored values.

Sen's Slope Estimator

MCM-02 (bg)

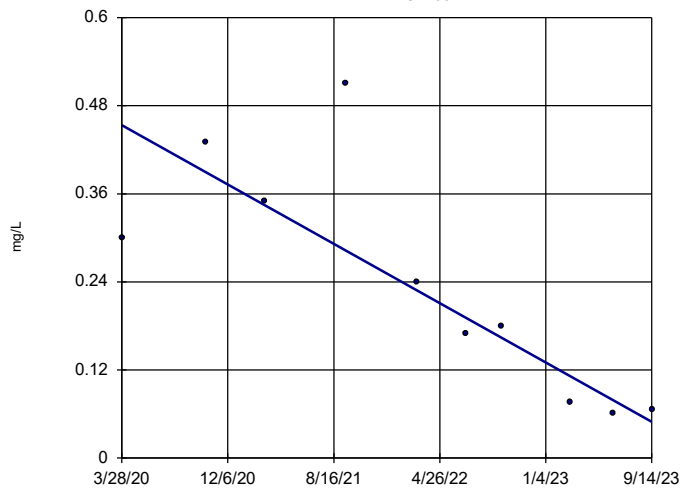


n = 8
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = 1
 critical = 17
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Arsenic Analysis Run 11/17/2023 3:14 PM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-06

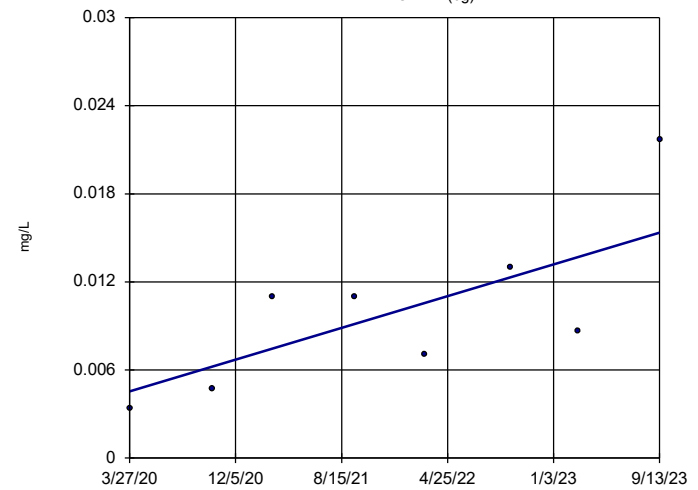


n = 10
 Slope = -0.1166
 units per year.
 Mann-Kendall
 statistic = -31
 critical = -23
 Decreasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Arsenic Analysis Run 11/17/2023 3:14 PM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-11 (bg)

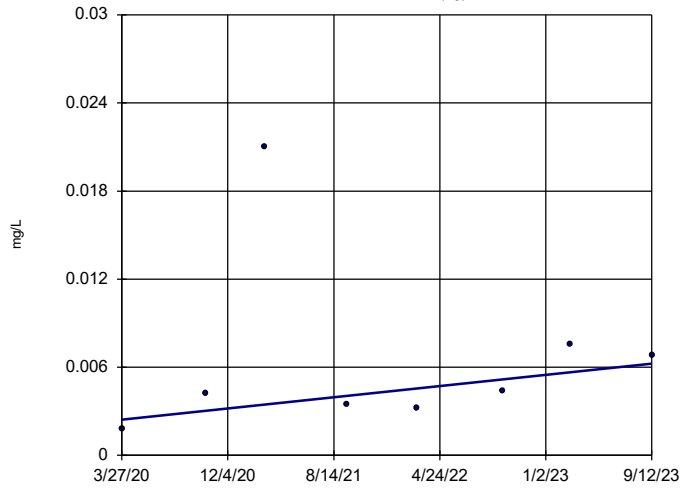


n = 8
 Slope = 0.003122
 units per year.
 Mann-Kendall
 statistic = 17
 critical = 17
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Arsenic Analysis Run 11/17/2023 3:14 PM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-15 (bg)



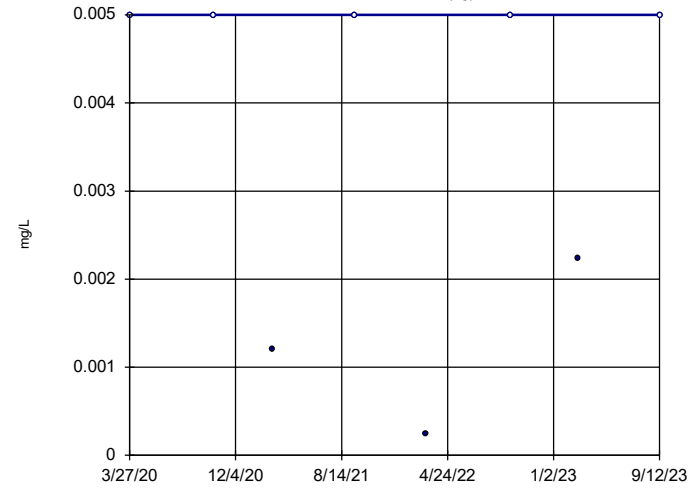
n = 8
 Slope = 0.001101 units per year.
 Mann-Kendall statistic = 10
 critical = 17
 Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Arsenic Analysis Run 11/17/2023 3:14 PM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Hollow symbols indicate censored values.

Sen's Slope Estimator

MCM-16 (bg)



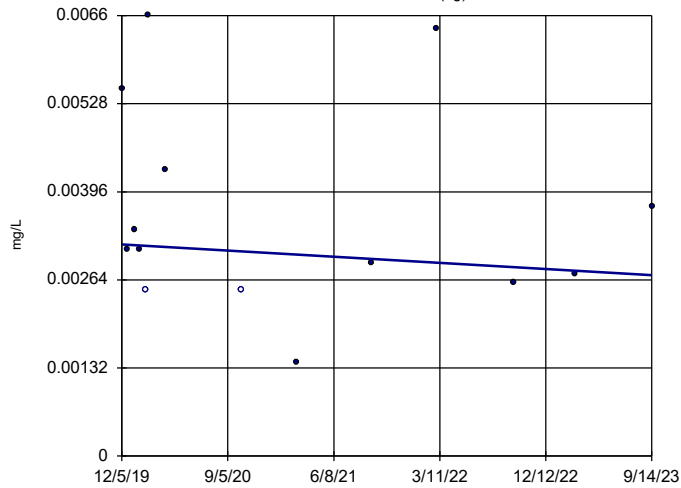
n = 8
 Slope = 0 units per year.
 Mann-Kendall statistic = -2
 critical = -17
 Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Arsenic Analysis Run 11/17/2023 3:14 PM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Hollow symbols indicate censored values.

Sen's Slope Estimator

MCM-18 (bg)

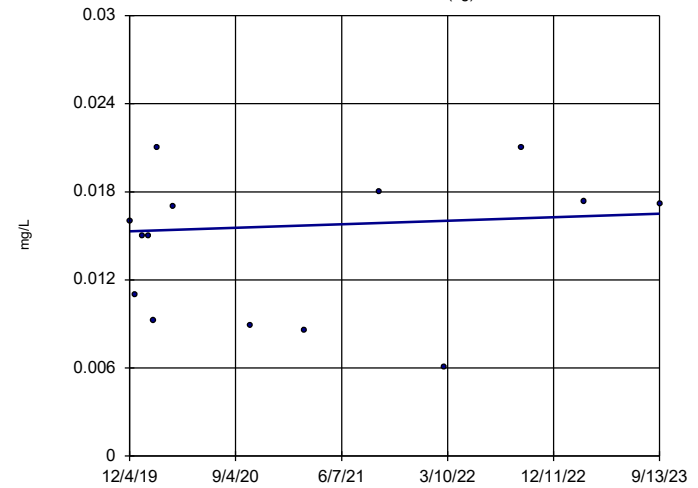


n = 14
 Slope = -0.0001213 units per year.
 Mann-Kendall statistic = -13
 critical = -37
 Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Arsenic Analysis Run 11/17/2023 3:14 PM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-19 (bg)

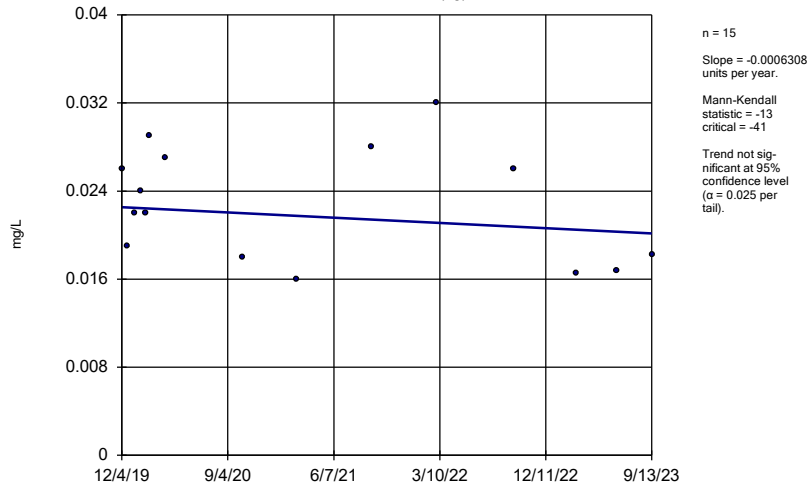


n = 14
 Slope = 0.0003176 units per year.
 Mann-Kendall statistic = 7
 critical = 37
 Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Arsenic Analysis Run 11/17/2023 3:14 PM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-20 (bg)

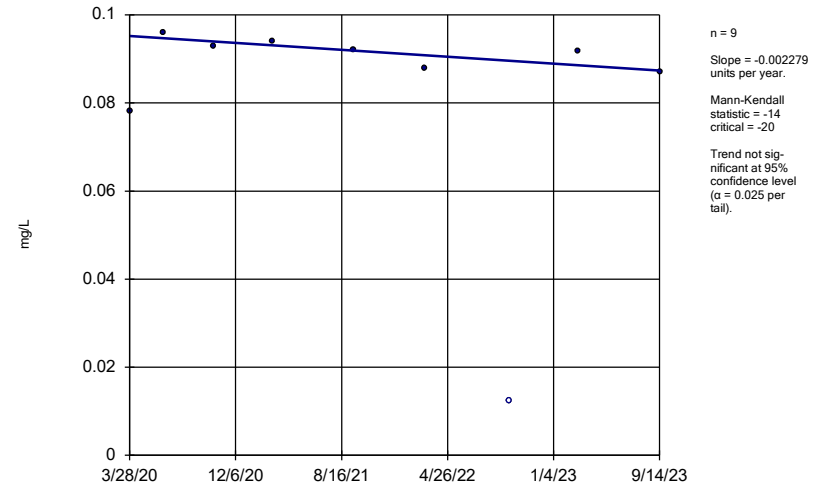


Constituent: Arsenic Analysis Run 11/17/2023 3:14 PM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Hollow symbols indicate censored values.

Sen's Slope Estimator

DPZ-02

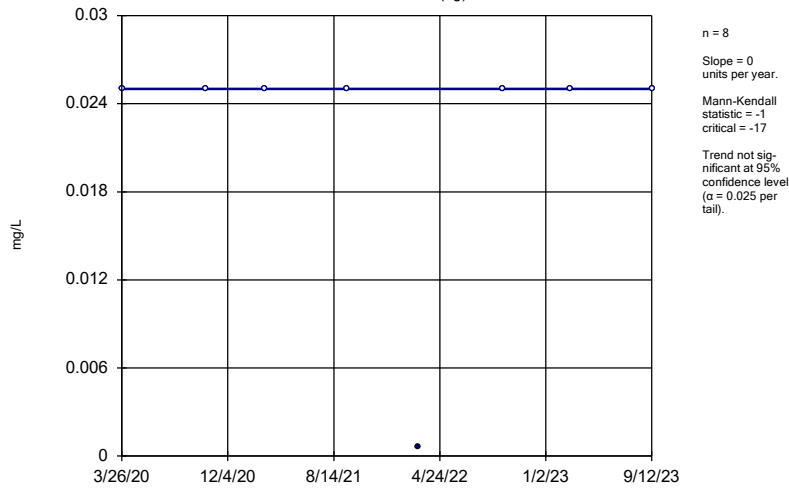


Constituent: Lithium Analysis Run 11/17/2023 3:14 PM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Hollow symbols indicate censored values.

Sen's Slope Estimator

MCM-01 (bg)

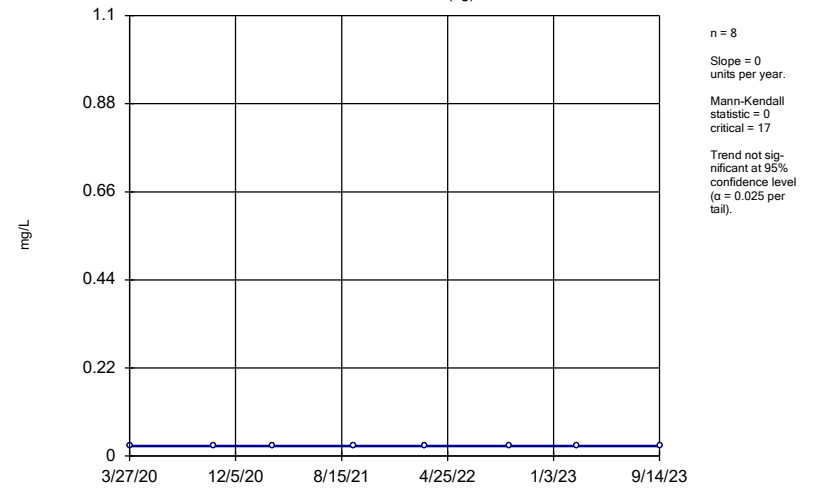


Constituent: Lithium Analysis Run 11/17/2023 3:14 PM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Hollow symbols indicate censored values.

Sen's Slope Estimator

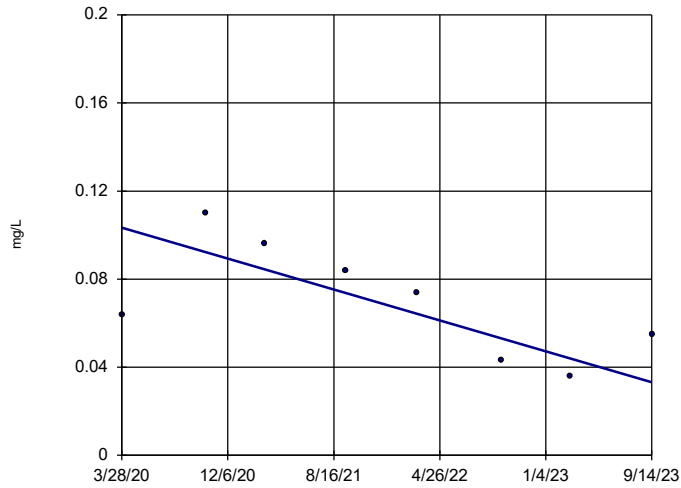
MCM-02 (bg)



Constituent: Lithium Analysis Run 11/17/2023 3:15 PM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-06



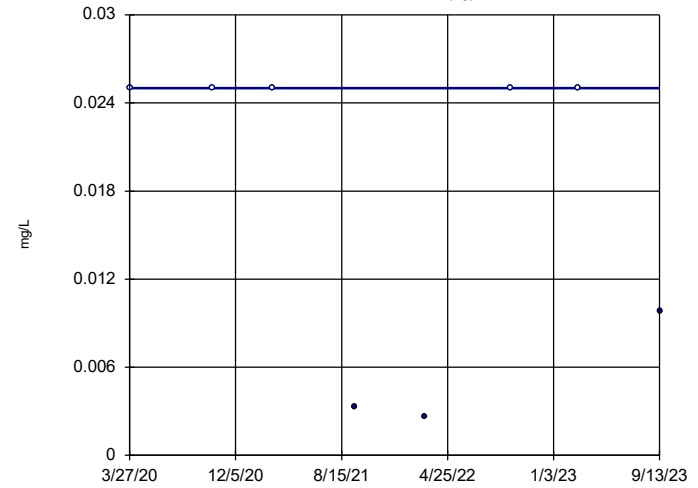
n = 8
 Slope = -0.02027
 units per year.
 Mann-Kendall
 statistic = -16
 critical = -17
 Trend not sig-
 nificant at 95%
 confidence level
 (α = 0.025 per
 tail).

Constituent: Lithium Analysis Run 11/17/2023 3:15 PM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Hollow symbols indicate censored values.

Sen's Slope Estimator

MCM-11 (bg)



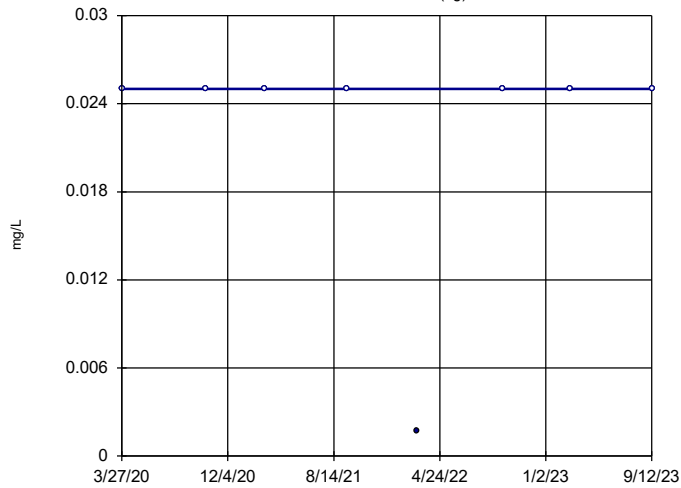
n = 8
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = -6
 critical = -17
 Trend not sig-
 nificant at 95%
 confidence level
 (α = 0.025 per
 tail).

Constituent: Lithium Analysis Run 11/17/2023 3:15 PM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Hollow symbols indicate censored values.

Sen's Slope Estimator

MCM-15 (bg)



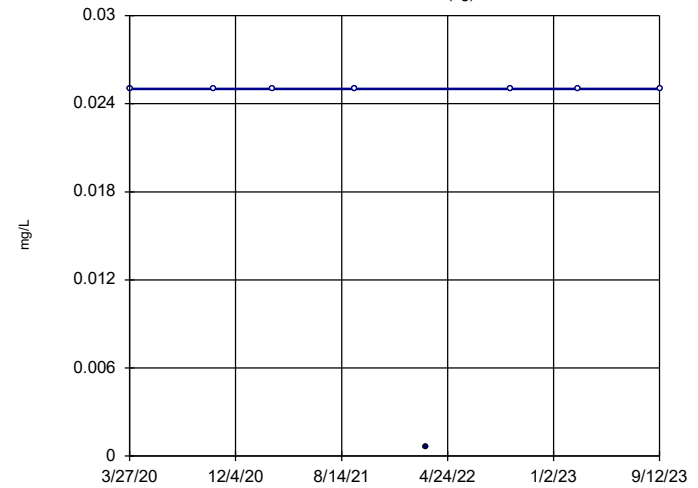
n = 8
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = -1
 critical = -17
 Trend not sig-
 nificant at 95%
 confidence level
 (α = 0.025 per
 tail).

Constituent: Lithium Analysis Run 11/17/2023 3:15 PM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Hollow symbols indicate censored values.

Sen's Slope Estimator

MCM-16 (bg)

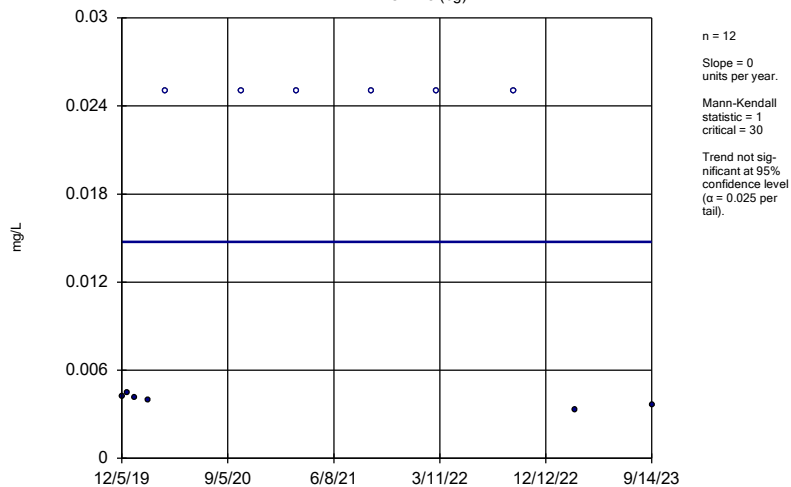


n = 8
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = -1
 critical = -17
 Trend not sig-
 nificant at 95%
 confidence level
 (α = 0.025 per
 tail).

Constituent: Lithium Analysis Run 11/17/2023 3:15 PM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

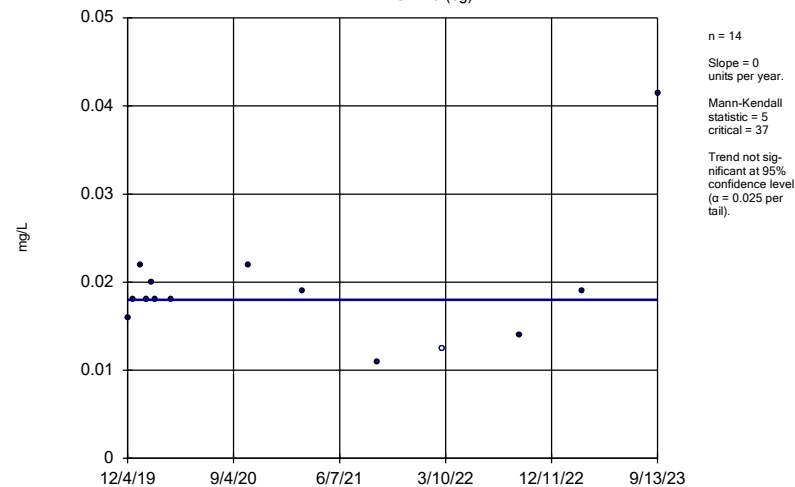
MCM-18 (bg)



Constituent: Lithium Analysis Run 11/17/2023 3:15 PM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

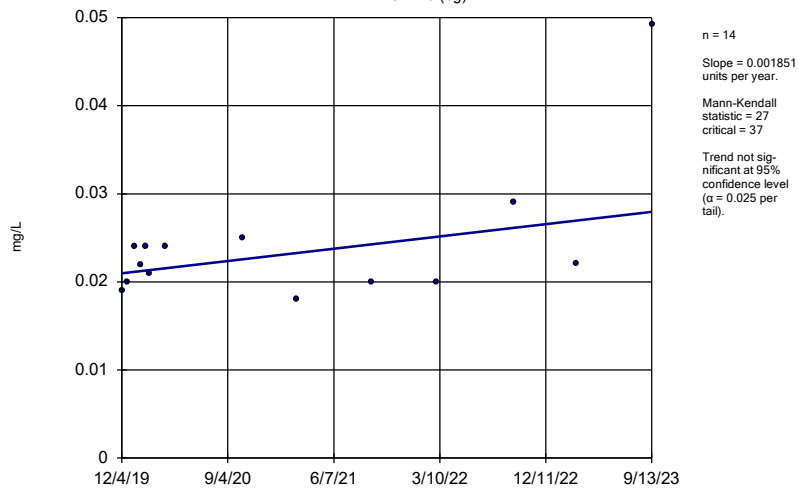
MCM-19 (bg)



Constituent: Lithium Analysis Run 11/17/2023 3:15 PM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

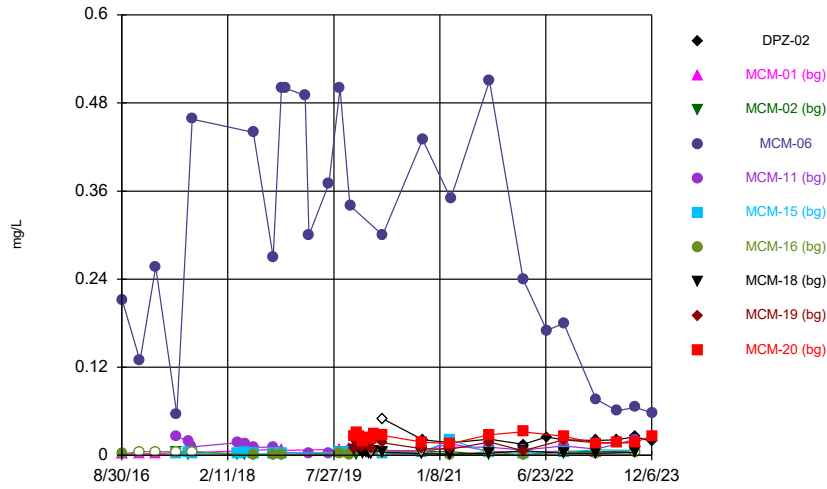
MCM-20 (bg)



Constituent: Lithium Analysis Run 11/17/2023 3:15 PM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

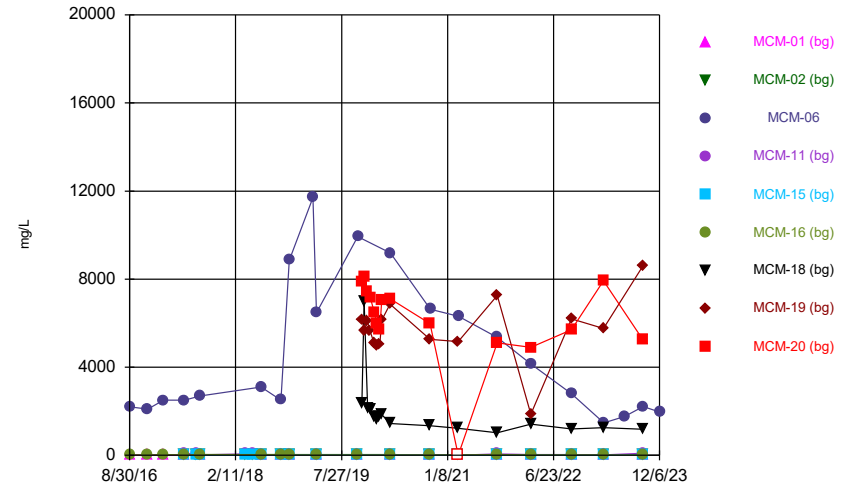
FIGURE K.

Time Series



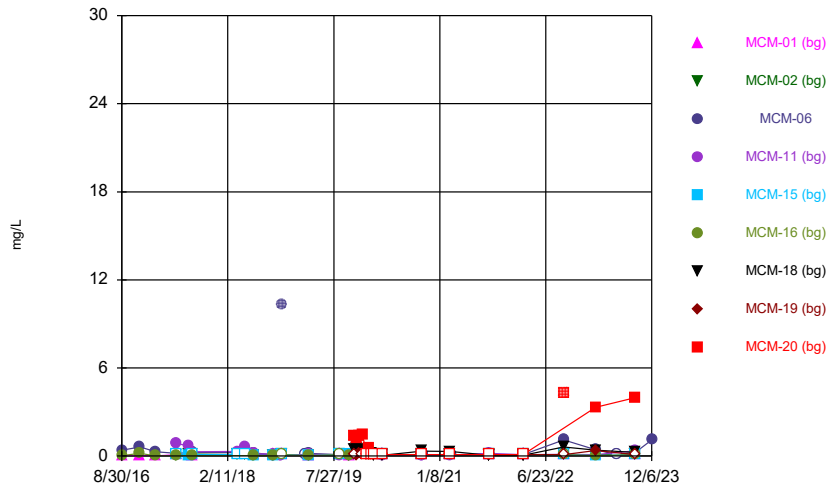
Constituent: Arsenic Analysis Run 1/19/2024 3:57 PM View: Resample Reports
Plant McManus Data: McManus Ash Pond Data

Time Series



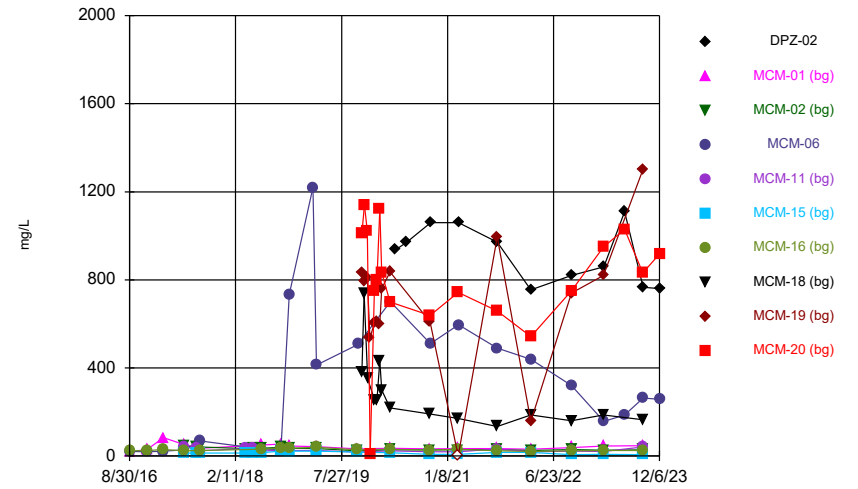
Constituent: Chloride Analysis Run 1/19/2024 3:57 PM View: Resample Reports
Plant McManus Data: McManus Ash Pond Data

Time Series



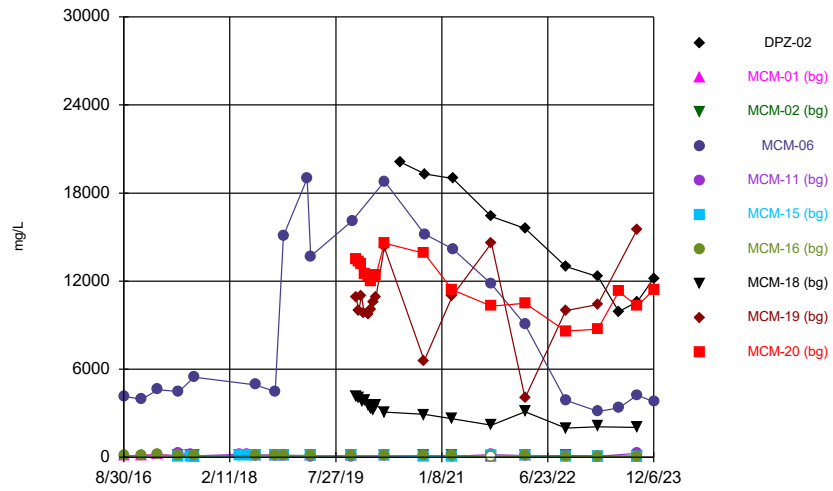
Constituent: Fluoride Analysis Run 1/19/2024 3:57 PM View: Resample Reports
Plant McManus Data: McManus Ash Pond Data

Time Series



Constituent: Sulfate Analysis Run 1/19/2024 3:57 PM View: Resample Reports
Plant McManus Data: McManus Ash Pond Data

Time Series



Constituent: Total Dissolved Solids Analysis Run 1/19/2024 3:57 PM View: Resample Reports
Plant McManus Data: McManus Ash Pond Data

Time Series

Constituent: Arsenic (mg/L) Analysis Run 1/19/2024 3:57 PM View: Resample Reports

Plant McManus Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-06	MCM-11 (bg)	MCM-15 (bg)	MCM-16 (bg)	MCM-18 (bg)	MCM-19 (bg)
8/30/2016		<0.005					0.0018 (J)		
8/31/2016				0.212					
11/30/2016		0.0018 (J)		0.129			<0.005		
2/15/2017		0.0022 (J)					<0.005		
2/16/2017				0.257					
5/31/2017			<0.005		0.0259				
6/1/2017		0.0036 (J)					<0.005		
6/2/2017				0.0559		0.0026 (J)			
8/2/2017			0.0011 (J)		0.0188	0.0047 (J)			
8/15/2017					0.0117				
8/16/2017		0.0038 (J)	<0.005						
8/17/2017				0.458		0.0028 (J)	<0.005		
4/4/2018					0.017	0.0029 (J)			
4/5/2018			0.00098 (J)						
5/8/2018					0.016	0.0048 (J)			
5/9/2018			0.0014 (J)						
6/19/2018		0.0069	0.0011 (J)		0.011	0.0019 (J)			
6/20/2018				0.44			0.00058 (J)		
9/25/2018					0.011				
9/26/2018		0.0081	0.00057			0.0023 (J)	0.00057		
9/27/2018				0.27					
11/6/2018					0.0043 (J)				
11/7/2018		0.0069	0.00059 (J)	0.5		0.0028	0.00057		
11/27/2018				0.5					
3/6/2019				0.49					
3/25/2019					0.0029 (J)				
3/26/2019				0.3					
7/2/2019				0.37	0.0024 (J)				
8/27/2019		0.0079				0.0041 (J)	0.0019 (J)		
8/28/2019			<0.005	0.5	0.005 (J)				
10/15/2019						0.0038 (J)			
10/16/2019		0.01	0.003 (J)		0.0054		0.001 (J)		
10/17/2019				0.34					
11/7/2019							0.0067	0.0094 (J)	
11/18/2019							0.012 (J)		
11/19/2019			0.00057 (J)					0.019 (J)	
11/20/2019		0.0064							
12/4/2019								0.016	
12/5/2019							0.0055		
12/17/2019								0.011 (J)	
12/18/2019							0.0031 (J)		
1/8/2020								0.015 (J)	
1/9/2020							0.0034 (J)		
1/21/2020							0.0031 (J)	0.015 (J)	
2/4/2020							<0.005	0.0092 (J)	
2/13/2020							0.0066	0.021 (J)	
3/26/2020		0.0069							
3/27/2020			<0.005		0.0034 (J)	0.0018 (J)	<0.005	0.0043 (J)	0.017
3/28/2020	<0.1			0.3					
10/12/2020					0.0047 (J)		<0.005		
10/13/2020		0.0061	<0.005			0.0042 (J)	<0.005		0.0089
10/14/2020				0.43					

Time Series

Constituent: Arsenic (mg/L) Analysis Run 1/19/2024 3:57 PM View: Resample Reports
 Plant McManus Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-06	MCM-11 (bg)	MCM-15 (bg)	MCM-16 (bg)	MCM-18 (bg)	MCM-19 (bg)
10/15/2020	0.021								
3/2/2021						0.021 (J)			
3/3/2021		0.016 (J)	<0.005		0.011 (J)		0.0012 (J)	0.0014 (J)	0.0086 (J)
3/4/2021	0.017 (J)			0.35					
9/14/2021	0.022	0.0055	0.00067 (J)	0.51	0.011	0.0035 (J)	<0.005	0.0029 (J)	0.018 (J)
3/1/2022	0.015 (J)			0.24					0.0061 (J)
3/2/2022		0.0043	0.00077 (J)		0.0071	0.0032		0.0064 (J)	
3/3/2022							0.00024 (J)		
6/28/2022	0.025			0.17					
9/20/2022	0.021			0.18				0.0026 (J)	0.021
9/21/2022		0.0057 (J)	<0.005		0.013	0.0044 (J)	<0.005		
2/28/2023								0.00273 (J)	0.0173
3/1/2023		0.00493 (J)	<0.005		0.00868 (J)		0.00223 (J)		
3/2/2023	0.0202			0.0764		0.00756 (J)			
6/13/2023	0.0213								
6/14/2023				0.0607					
9/12/2023		0.00628				0.00677	<0.005		
9/13/2023					0.0217				0.0172
9/14/2023	0.0254		<0.005	0.0653				0.00374 (J)	
12/6/2023	0.0189 (J)			0.0581					

Time Series

Constituent: Arsenic (mg/L) Analysis Run 1/19/2024 3:57 PM View: Resample Reports
Plant McManus Data: McManus Ash Pond Data

MCM-20 (bg)

8/30/2016	
8/31/2016	
11/30/2016	
2/15/2017	
2/16/2017	
5/31/2017	
6/1/2017	
6/2/2017	
8/2/2017	
8/15/2017	
8/16/2017	
8/17/2017	
4/4/2018	
4/5/2018	
5/8/2018	
5/9/2018	
6/19/2018	
6/20/2018	
9/25/2018	
9/26/2018	
9/27/2018	
11/6/2018	
11/7/2018	
11/27/2018	
3/6/2019	
3/25/2019	
3/26/2019	
7/2/2019	
8/27/2019	
8/28/2019	
10/15/2019	
10/16/2019	
10/17/2019	
11/7/2019	0.026
11/18/2019	
11/19/2019	0.031 (J)
11/20/2019	
12/4/2019	0.026
12/5/2019	
12/17/2019	
12/18/2019	0.019 (J)
1/8/2020	0.022 (J)
1/9/2020	
1/21/2020	0.024 (J)
2/4/2020	0.022 (J)
2/13/2020	0.029
3/26/2020	
3/27/2020	0.027
3/28/2020	
10/12/2020	
10/13/2020	0.018
10/14/2020	

Time Series

Constituent: Arsenic (mg/L) Analysis Run 1/19/2024 3:57 PM View: Resample Reports
Plant McManus Data: McManus Ash Pond Data

	MCM-20 (bg)
10/15/2020	
3/2/2021	
3/3/2021	0.016 (J)
3/4/2021	
9/14/2021	0.028
3/1/2022	0.032
3/2/2022	
3/3/2022	
6/28/2022	
9/20/2022	0.026
9/21/2022	
2/28/2023	0.0166
3/1/2023	
3/2/2023	
6/13/2023	0.0168
6/14/2023	
9/12/2023	
9/13/2023	0.0182
9/14/2023	
12/6/2023	0.0257

Time Series

Constituent: Chloride (mg/L) Analysis Run 1/19/2024 3:57 PM View: Resample Reports

Plant McManus Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-02 (bg)	MCM-06	MCM-11 (bg)	MCM-15 (bg)	MCM-16 (bg)	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	9.7					26			
8/31/2016			2200						
11/30/2016	19		2100			27			
2/15/2017	21					30			
2/16/2017			2500						
5/31/2017		39		98					
6/1/2017	12					27			
6/2/2017			2500		11				
8/2/2017		42		57	3.2				
8/15/2017				15					
8/16/2017	14	41							
8/17/2017			2700		12	32			
4/4/2018				69	13.4				
4/5/2018		40.2							
5/8/2018				72.3	13.2				
5/9/2018		40.6							
6/19/2018	24.4	37.7		17.3	13.7				
6/20/2018			3100			30			
9/25/2018				31.3					
9/26/2018	23.4	33.4			18.5	28.4			
9/27/2018			2510 (D)						
11/6/2018				9.8					
11/7/2018	21.8	30.7	8860		20.2	25.1			
3/6/2019			11700						
3/24/2019			6470						
3/25/2019	19.4	33.5		12.9	19.7	21.8			
10/15/2019					17.1				
10/16/2019	21.4	33.1		12.2		20			
10/17/2019			9930						
11/7/2019							2360	6170	7880
11/18/2019							6970		
11/19/2019								5650	8130
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
3/26/2020	23								
3/27/2020		32.9		14.5	14.1	23.6	1450	6870	7110
3/28/2020			9190						
10/12/2020				13.9			1340		
10/13/2020	13.5	25.7			3.8	23.3		5260	5980
10/14/2020			6630						
3/2/2021					4.2				
3/3/2021	13.6	20.5		9.4		27.6	1230	5170	<1
3/4/2021			6310						
9/14/2021	16.7	21.8	5360	62.8	13.6	30	1020	7250	5100
3/1/2022			4150					1870	4900

Time Series

Constituent: Chloride (mg/L) Analysis Run 1/19/2024 3:57 PM View: Resample Reports
Plant McManus Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-02 (bg)	MCM-06	MCM-11 (bg)	MCM-15 (bg)	MCM-16 (bg)	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
3/2/2022	13.4	20.6		28.4	14.3		1420		
3/3/2022						26.5			
9/20/2022			2800				1200	6200	5700
9/21/2022	17	23		32	3.3	17			
2/28/2023							1250	5760	7930
3/1/2023	14.9	21.8		17.7		14.2			
3/2/2023			1470		4.88				
6/14/2023			1770						
9/12/2023	10.7				3.49	13.3			
9/13/2023				98.5				8600	5250
9/14/2023		21.1	2220				1190		
12/6/2023			1970						

Time Series

Constituent: Fluoride (mg/L) Analysis Run 1/19/2024 3:57 PM View: Resample Reports

Plant McManus Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-02 (bg)	MCM-06	MCM-11 (bg)	MCM-15 (bg)	MCM-16 (bg)	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	0.03 (J)					0.04 (J)			
8/31/2016			0.41						
11/30/2016	0.04 (J)		0.61			0.18 (J)			
2/15/2017	0.007 (J)					0.02 (J)			
2/16/2017			0.3 (J)						
5/31/2017		0.01 (J)		0.85					
6/1/2017	<0.1					0.005 (J)			
6/2/2017			0.19 (J)		<0.1				
8/2/2017		0.14 (J)		0.69	0.05 (J)				
8/15/2017				0.29 (J)					
8/16/2017	0.03 (J)	0.13 (J)							
8/17/2017			0.26 (J)		<0.1	0.04 (J)			
4/4/2018				0.32	<0.1				
4/5/2018		<0.1							
5/8/2018				0.63	<0.1				
5/9/2018		<0.1							
6/19/2018	<0.1	0.065 (J)		0.17 (J)	0.057 (J)				
6/20/2018			0.22 (J)			0.038 (J)			
9/25/2018				0.15 (J)					
9/26/2018	0.12 (J)	0.029			0.029	0.029			
9/27/2018			0.068 (J)						
11/6/2018				<0.1					
11/7/2018	<0.1	<0.1	10.3 (o)		<0.1	<0.1			
3/6/2019			<0.1						
3/24/2019			0.19 (J)						
3/25/2019	0.038 (J)	0.039 (J)		0.12 (J)	0.036 (J)	0.041 (J)			
8/27/2019	<0.1				<0.1	<0.1			
8/28/2019		<0.1	<0.1	0.068 (J)					
10/15/2019					0.14 (J)				
10/16/2019	0.046 (JD)	0.044 (JD)		0.1 (J)		0.044 (J)			
10/17/2019			<0.1						
11/7/2019							0.49	<0.1	1.4
11/18/2019							0.52		
11/19/2019								0.033 (J)	1.2
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
3/26/2020	<0.1								
3/27/2020		<0.1		0.066 (J)	<0.1	<0.1	0.06 (J)	<0.1	<0.1
3/28/2020			<0.1						
10/12/2020				<0.1			0.34		
10/13/2020	<0.1	<0.1			<0.1	<0.1		<0.1	<0.1
10/14/2020			<0.1						
3/2/2021					<0.1				
3/3/2021	<0.1	<0.1		0.082 (J)		<0.1	0.32	<0.1	<0.1
3/4/2021			<0.1						

Time Series

Constituent: Fluoride (mg/L) Analysis Run 1/19/2024 3:57 PM View: Resample Reports

Plant McManus Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-02 (bg)	MCM-06	MCM-11 (bg)	MCM-15 (bg)	MCM-16 (bg)	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
9/14/2021	<0.1	<0.1	<0.1	0.18	<0.1	<0.1	<0.1	<0.1	<0.1
3/1/2022			<0.1					<0.1	<0.1
3/2/2022	<0.1	<0.1		0.097 (J)	<0.1		<0.1		
3/3/2022						<0.1			
9/20/2022			1.1 (J)				0.61 (J)	<0.1	4.3 (Jo)
9/21/2022	<0.1	<0.1		0.11	<0.1	<0.1			
2/28/2023							0.407 (J)	0.38 (J)	3.32 (J)
3/1/2023	<0.1	<0.1		0.101 (J)		0.0397 (J)			
3/2/2023			0.419 (J)		0.0397 (J)				
6/14/2023			<0.1						
9/12/2023	<0.1				<0.1	<0.1			
9/13/2023				0.362 (J)				<0.1	3.98 (J)
9/14/2023		<0.1	0.246 (J)				0.251 (J)		
12/6/2023			1.1 (J)						

Time Series

Constituent: Sulfate (mg/L) Analysis Run 1/19/2024 3:57 PM View: Resample Reports

Plant McManus Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-06	MCM-11 (bg)	MCM-15 (bg)	MCM-16 (bg)	MCM-18 (bg)	MCM-19 (bg)
8/30/2016		17					24		
8/31/2016				21					
11/30/2016		33		19			26		
2/15/2017		83					30		
2/16/2017				22					
5/31/2017			46		40				
6/1/2017		51					24		
6/2/2017				28		13			
8/2/2017			43		34	14			
8/15/2017					24				
8/16/2017		36	41						
8/17/2017				69		14	26		
4/4/2018					33.9	13.4			
4/5/2018			33.4						
5/8/2018					35.7	14.8			
5/9/2018			36						
6/19/2018		50.3	35.5		23.7	15.5			
6/20/2018				33			31.2		
9/25/2018					25.6				
9/26/2018		54.1	39.6			23	36.8		
9/27/2018				29.4 (D)					
11/6/2018					25.2				
11/7/2018		45.6	35.8	734		22.2	35		
3/6/2019				1220 (J)					
3/24/2019				413					
3/25/2019		43	34.2		24.9	22.4	40.1		
10/15/2019						17.9			
10/16/2019		31.9	24.4		17.4		28.5		
10/17/2019				507					
11/7/2019								379	832
11/18/2019							737		
11/19/2019									795
12/4/2019									810
12/5/2019							351		
12/17/2019									535
12/18/2019									
1/8/2020									603
1/9/2020							254		
1/21/2020							254		611
2/4/2020							432		599
2/13/2020							300		761
3/26/2020		36.2							
3/27/2020			28.6		23.4	14.6	31.2	219	836
3/28/2020				701					
4/23/2020	936								
6/16/2020	970								
10/12/2020					19.3			191	
10/13/2020		32.3	27.6			7.6	26.8		609
10/14/2020				510					
10/15/2020	1060								
3/2/2021						8			
3/3/2021		33.8	27.6		19.9		30.5	171	<1

Time Series

Constituent: Sulfate (mg/L) Analysis Run 1/19/2024 3:57 PM View: Resample Reports
Plant McManus Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-06	MCM-11 (bg)	MCM-15 (bg)	MCM-16 (bg)	MCM-18 (bg)	MCM-19 (bg)
3/4/2021	1060			596					
9/14/2021	971	34.2	30.4	490	33.1	16.7	24.4	134	995
3/1/2022	755			440					158
3/2/2022		30.8	25.7		19.5	16		186	
3/3/2022							20.4		
9/20/2022	820			320				160	740
9/21/2022		39	29		23	6.3	24		
2/28/2023								186	820
3/1/2023		45.3	27.4		21.4		25.8		
3/2/2023	859			157		8.12			
6/13/2023	1110								
6/14/2023				187					
9/12/2023		47.5				6.48	25.2		
9/13/2023					42				1300
9/14/2023	767		28.8	263				165	
12/6/2023	761			258					

Time Series

Constituent: Sulfate (mg/L) Analysis Run 1/19/2024 3:57 PM View: Resample Reports
Plant McManus Data: McManus Ash Pond Data

MCM-20 (bg)

8/30/2016	
8/31/2016	
11/30/2016	
2/15/2017	
2/16/2017	
5/31/2017	
6/1/2017	
6/2/2017	
8/2/2017	
8/15/2017	
8/16/2017	
8/17/2017	
4/4/2018	
4/5/2018	
5/8/2018	
5/9/2018	
6/19/2018	
6/20/2018	
9/25/2018	
9/26/2018	
9/27/2018	
11/6/2018	
11/7/2018	
3/6/2019	
3/24/2019	
3/25/2019	
10/15/2019	
10/16/2019	
10/17/2019	
11/7/2019	1010
11/18/2019	
11/19/2019	1140
12/4/2019	1020
12/5/2019	
12/17/2019	
12/18/2019	8.1
1/8/2020	747
1/9/2020	
1/21/2020	798
2/4/2020	1120
2/13/2020	833
3/26/2020	
3/27/2020	700
3/28/2020	
4/23/2020	
6/16/2020	
10/12/2020	
10/13/2020	638
10/14/2020	
10/15/2020	
3/2/2021	
3/3/2021	743

Time Series

Constituent: Sulfate (mg/L) Analysis Run 1/19/2024 3:57 PM View: Resample Reports
Plant McManus Data: McManus Ash Pond Data

	MCM-20 (bg)
3/4/2021	
9/14/2021	659
3/1/2022	543
3/2/2022	
3/3/2022	
9/20/2022	750
9/21/2022	
2/28/2023	950
3/1/2023	
3/2/2023	
6/13/2023	1030
6/14/2023	
9/12/2023	
9/13/2023	832
9/14/2023	
12/6/2023	917

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/19/2024 3:57 PM View: Resample Reports

Plant McManus Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-06	MCM-11 (bg)	MCM-15 (bg)	MCM-16 (bg)	MCM-18 (bg)	MCM-19 (bg)
8/30/2016		86					99		
8/31/2016				4160					
11/30/2016		131		3950			111		
2/15/2017		212					170		
2/16/2017				4600					
5/31/2017			123		257				
6/1/2017		103					98		
6/2/2017				4470		69			
8/2/2017			136		183	35			
8/15/2017					90				
8/16/2017		65	124						
8/17/2017				5450		51	84		
4/4/2018					197	90			
4/5/2018			128						
5/8/2018					225	89			
5/9/2018			127						
6/19/2018		142	143		112	110			
6/20/2018				4940			123		
9/25/2018					137				
9/26/2018		133	132			124	117		
9/27/2018				4480					
11/6/2018					89				
11/7/2018		121	134	15100		125	120		
3/6/2019				19000					
3/24/2019				13700					
3/25/2019		116	111		74	98	101		
10/15/2019						107			
10/16/2019		104	96		82		95		
10/17/2019				16100					
11/7/2019								4140	10900
11/18/2019							4030		
11/19/2019									10000
12/4/2019									11000
12/5/2019							3840		
12/17/2019									9860
12/18/2019							3880		
1/8/2020									9760
1/9/2020							3520		
1/21/2020							3280		10100
2/4/2020							3220		10600
2/13/2020							3580		10900
3/26/2020		114							
3/27/2020			119		87	110	110	3090	14300
3/28/2020				18800					
6/16/2020	20100								
10/12/2020					94		2920		
10/13/2020		113	118			63	115		6600
10/14/2020				15200					
10/15/2020	19300								
3/2/2021						40			
3/3/2021		99	84		66		122	2620	11000
3/4/2021	19000			14200					

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/19/2024 3:57 PM View: Resample Reports

Plant McManus Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-06	MCM-11 (bg)	MCM-15 (bg)	MCM-16 (bg)	MCM-18 (bg)	MCM-19 (bg)
9/14/2021	16400	66	76	11800	191	96	<25	2190	14600
3/1/2022	15600			9040					4050
3/2/2022		97	94		124	103		3100	
3/3/2022							104		
9/20/2022	13000			3900				2000	10000
9/21/2022		100	90		110	38	78		
2/28/2023								2090	10400
3/1/2023		78	73		67		56		
3/2/2023	12300			3120		35			
6/13/2023	9920								
6/14/2023				3370					
9/12/2023		80				20	42		
9/13/2023					274				15500
9/14/2023	10600		76	4240				2040	
12/6/2023	12200			3780					

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/19/2024 3:57 PM View: Resample Reports

Plant McManus Data: McManus Ash Pond Data

MCM-20 (bg)

8/30/2016	
8/31/2016	
11/30/2016	
2/15/2017	
2/16/2017	
5/31/2017	
6/1/2017	
6/2/2017	
8/2/2017	
8/15/2017	
8/16/2017	
8/17/2017	
4/4/2018	
4/5/2018	
5/8/2018	
5/9/2018	
6/19/2018	
6/20/2018	
9/25/2018	
9/26/2018	
9/27/2018	
11/6/2018	
11/7/2018	
3/6/2019	
3/24/2019	
3/25/2019	
10/15/2019	
10/16/2019	
10/17/2019	
11/7/2019	13500
11/18/2019	
11/19/2019	13300
12/4/2019	13200
12/5/2019	
12/17/2019	
12/18/2019	12500
1/8/2020	12300
1/9/2020	
1/21/2020	12000
2/4/2020	12300
2/13/2020	12400
3/26/2020	
3/27/2020	14600
3/28/2020	
6/16/2020	
10/12/2020	
10/13/2020	13900
10/14/2020	
10/15/2020	
3/2/2021	
3/3/2021	11400
3/4/2021	

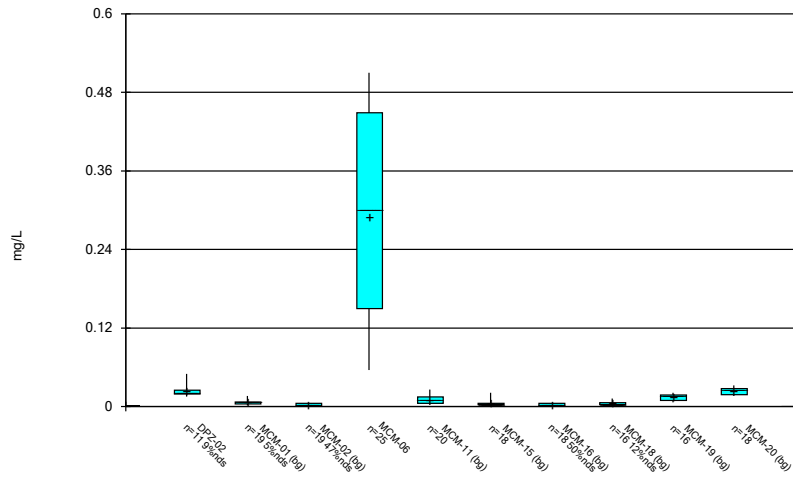
Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/19/2024 3:57 PM View: Resample Reports
Plant McManus Data: McManus Ash Pond Data

	MCM-20 (bg)
9/14/2021	10300
3/1/2022	10500
3/2/2022	
3/3/2022	
9/20/2022	8600
9/21/2022	
2/28/2023	8720
3/1/2023	
3/2/2023	
6/13/2023	11300
6/14/2023	
9/12/2023	
9/13/2023	10300
9/14/2023	
12/6/2023	11400

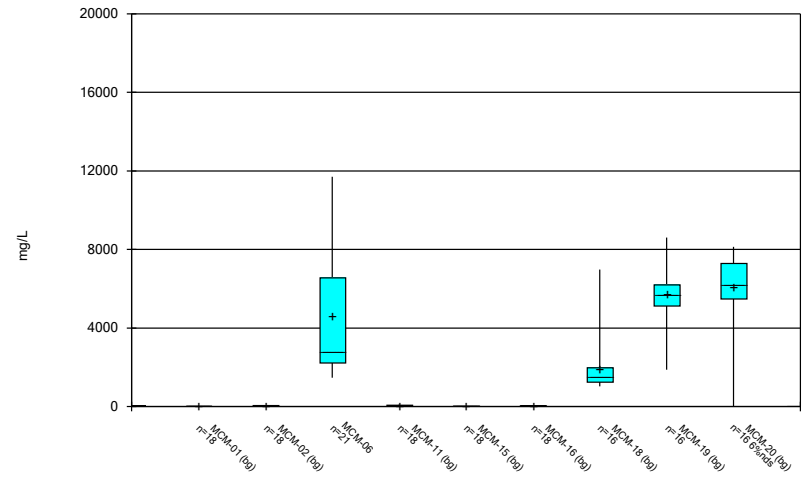
FIGURE L.

Box & Whiskers Plot



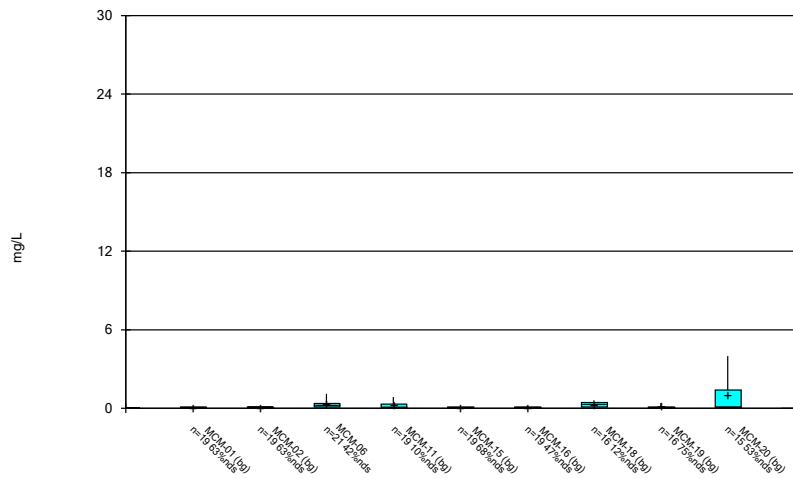
Constituent: Arsenic Analysis Run 1/19/2024 3:58 PM View: Resample Reports
Plant McManus Data: McManus Ash Pond Data

Box & Whiskers Plot



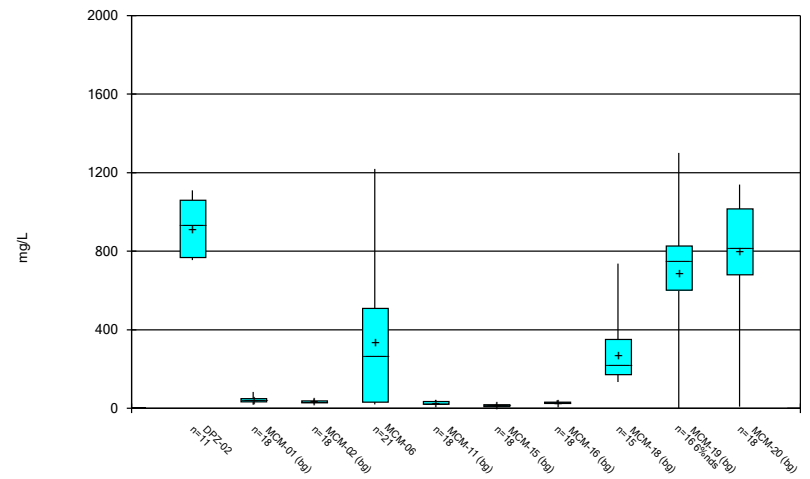
Constituent: Chloride Analysis Run 1/19/2024 3:58 PM View: Resample Reports
Plant McManus Data: McManus Ash Pond Data

Box & Whiskers Plot



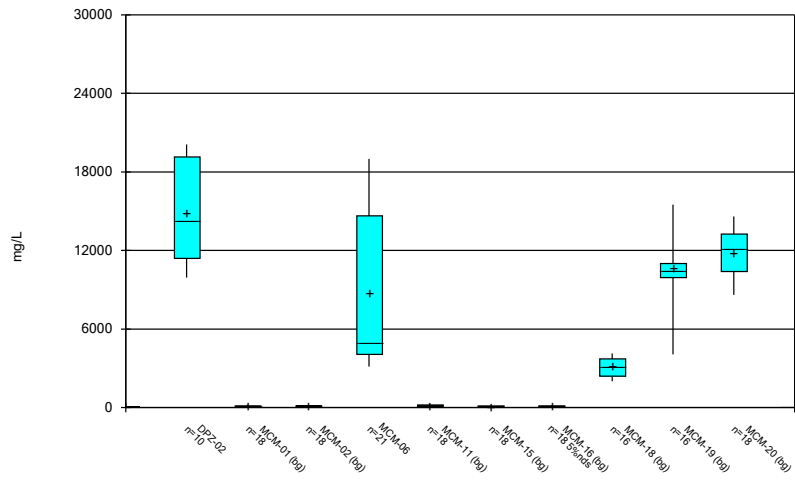
Constituent: Fluoride Analysis Run 1/19/2024 3:58 PM View: Resample Reports
Plant McManus Data: McManus Ash Pond Data

Box & Whiskers Plot



Constituent: Sulfate Analysis Run 1/19/2024 3:58 PM View: Resample Reports
Plant McManus Data: McManus Ash Pond Data

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 1/19/2024 3:58 PM View: Resample Reports
Plant McManus Data: McManus Ash Pond Data

FIGURE M.

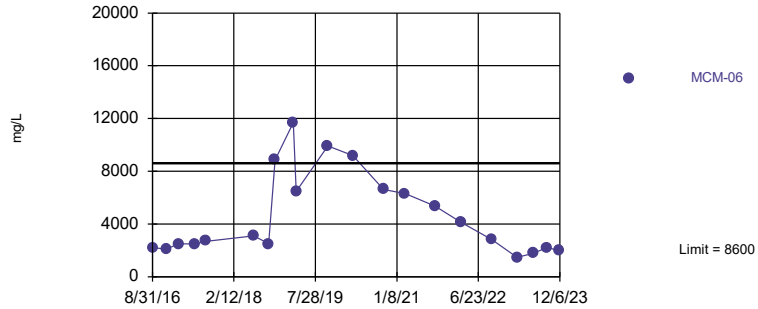
Interwell Prediction Limits - December 2023 Resample - All Results (No Significant)

Plant McManus Data: McManus Ash Pond Data Printed 1/19/2024, 3:41 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform Alpha	Method
Chloride (mg/L)	MCM-06	8600	n/a	12/6/2023	1970	No	138	n/a	n/a	0.7246	n/a	n/a	0.0001031 NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-06	3.98	n/a	12/6/2023	1.1J	No	142	n/a	n/a	49.3	n/a	n/a	0.00009726NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-06	1300	n/a	12/6/2023	258	No	139	n/a	n/a	0.7194	n/a	n/a	0.0001013 NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-06	15500	n/a	12/6/2023	3780	No	140	n/a	n/a	0.7143	n/a	n/a	0.00009956NP Inter (normality) 1 of 2

Within Limit

Prediction Limit Interwell Non-parametric

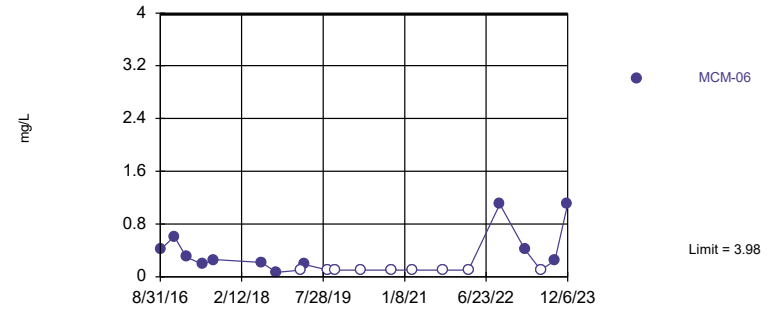


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 138 background values. 0.7246% NDs. Annual per-constituent alpha = 0.001442. Individual comparison alpha = 0.0001031 (1 of 2). Assumes 6 future values.

Constituent: Chloride Analysis Run 1/19/2024 3:41 PM View: Resample Interwell PLS
Plant McManus Data: McManus Ash Pond Data

Within Limit

Prediction Limit Interwell Non-parametric

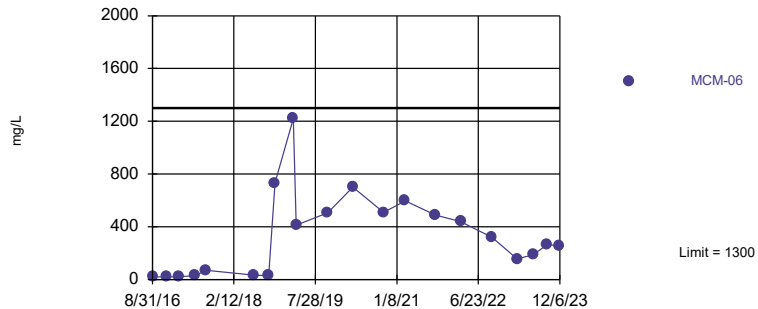


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 142 background values. 49.3% NDs. Annual per-constituent alpha = 0.001361. Individual comparison alpha = 0.00009726 (1 of 2). Assumes 6 future values.

Constituent: Fluoride Analysis Run 1/19/2024 3:41 PM View: Resample Interwell PLS
Plant McManus Data: McManus Ash Pond Data

Within Limit

Prediction Limit Interwell Non-parametric

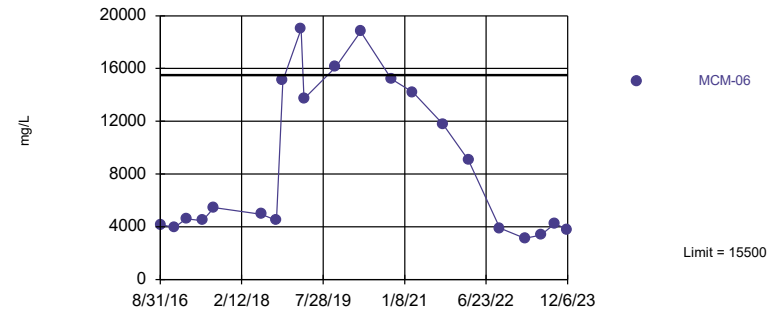


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 139 background values. 0.7194% NDs. Annual per-constituent alpha = 0.001418. Individual comparison alpha = 0.0001013 (1 of 2). Assumes 6 future values.

Constituent: Sulfate Analysis Run 1/19/2024 3:41 PM View: Resample Interwell PLS
Plant McManus Data: McManus Ash Pond Data

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 140 background values. 0.7143% NDs. Annual per-constituent alpha = 0.001393. Individual comparison alpha = 0.00009956 (1 of 2). Assumes 6 future values.

Constituent: Total Dissolved Solids Analysis Run 1/19/2024 3:41 PM View: Resample Interwell PLS
Plant McManus Data: McManus Ash Pond Data

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/19/2024 3:41 PM View: Resample Interwell PLs

Plant McManus Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-16 (bg)	MCM-06	MCM-11 (bg)	MCM-02 (bg)	MCM-15 (bg)	MCM-18 (bg)	MCM-20 (bg)	MCM-19 (bg)
8/30/2016	9.7	26							
8/31/2016			2200						
11/30/2016	19	27	2100						
2/15/2017	21	30							
2/16/2017			2500						
5/31/2017				98	39				
6/1/2017	12	27							
6/2/2017			2500			11			
8/2/2017				57	42	3.2			
8/15/2017				15					
8/16/2017	14				41				
8/17/2017		32	2700			12			
4/4/2018				69		13.4			
4/5/2018					40.2				
5/8/2018				72.3		13.2			
5/9/2018					40.6				
6/19/2018	24.4			17.3	37.7	13.7			
6/20/2018		30	3100						
9/25/2018				31.3					
9/26/2018	23.4	28.4			33.4	18.5			
9/27/2018			2510 (D)						
11/6/2018				9.8					
11/7/2018	21.8	25.1	8860		30.7	20.2			
3/6/2019			11700						
3/24/2019			6470						
3/25/2019	19.4	21.8		12.9	33.5	19.7			
10/15/2019						17.1			
10/16/2019	21.4	20		12.2	33.1				
10/17/2019			9930						
11/7/2019							2360	7880	6170
11/18/2019							6970		
11/19/2019								8130	5650
12/4/2019								7410	6100
12/5/2019							2130		
12/17/2019									5660
12/18/2019							2090	7170	
1/8/2020								6480	5070
1/9/2020							1750		
1/21/2020							1630	6000	5010
2/4/2020							1760	5700	5030
2/13/2020							1850	7060	6140
3/26/2020	23								
3/27/2020		23.6		14.5	32.9	14.1	1450	7110	6870
3/28/2020			9190						
10/12/2020				13.9			1340		
10/13/2020	13.5	23.3			25.7	3.8		5980	5260
10/14/2020			6630						
3/2/2021						4.2			
3/3/2021	13.6	27.6		9.4	20.5		1230	<1	5170
3/4/2021			6310						
9/14/2021	16.7	30	5360	62.8	21.8	13.6	1020	5100	7250
3/1/2022			4150					4900	1870

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/19/2024 3:41 PM View: Resample Interwell PLs
Plant McManus Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-16 (bg)	MCM-06	MCM-11 (bg)	MCM-02 (bg)	MCM-15 (bg)	MCM-18 (bg)	MCM-20 (bg)	MCM-19 (bg)
3/2/2022	13.4			28.4	20.6	14.3	1420		
3/3/2022		26.5							
9/20/2022			2800				1200	5700	6200
9/21/2022	17	17		32	23	3.3			
2/28/2023							1250	7930	5760
3/1/2023	14.9	14.2		17.7	21.8				
3/2/2023			1470			4.88			
6/14/2023			1770						
9/12/2023	10.7	13.3				3.49			
9/13/2023				98.5				5250	8600
9/14/2023			2220		21.1		1190		
12/6/2023			1970						

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/19/2024 3:41 PM View: Resample Interwell PLs

Plant McManus Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-16 (bg)	MCM-06	MCM-02 (bg)	MCM-11 (bg)	MCM-15 (bg)	MCM-20 (bg)	MCM-19 (bg)	MCM-18 (bg)
8/30/2016	0.03 (J)	0.04 (J)							
8/31/2016			0.41						
11/30/2016	0.04 (J)	0.18 (J)	0.61						
2/15/2017	0.007 (J)	0.02 (J)							
2/16/2017			0.3 (J)						
5/31/2017				0.01 (J)	0.85				
6/1/2017	<0.1	0.005 (J)							
6/2/2017			0.19 (J)				<0.1		
8/2/2017				0.14 (J)	0.69	0.05 (J)			
8/15/2017					0.29 (J)				
8/16/2017	0.03 (J)			0.13 (J)					
8/17/2017		0.04 (J)	0.26 (J)				<0.1		
4/4/2018					0.32	<0.1			
4/5/2018				<0.1					
5/8/2018					0.63	<0.1			
5/9/2018				<0.1					
6/19/2018	<0.1			0.065 (J)	0.17 (J)	0.057 (J)			
6/20/2018		0.038 (J)	0.22 (J)						
9/25/2018					0.15 (J)				
9/26/2018	0.12 (J)	0.029		0.029		0.029			
9/27/2018			0.068 (J)						
11/6/2018					<0.1				
11/7/2018	<0.1	<0.1	10.3 (o)	<0.1		<0.1			
3/6/2019			<0.1						
3/24/2019			0.19 (J)						
3/25/2019	0.038 (J)	0.041 (J)		0.039 (J)	0.12 (J)	0.036 (J)			
8/27/2019	<0.1	<0.1				<0.1			
8/28/2019			<0.1	<0.1	0.068 (J)				
10/15/2019						0.14 (J)			
10/16/2019	0.046 (JD)	0.044 (J)		0.044 (JD)	0.1 (J)				
10/17/2019			<0.1						
11/7/2019						1.4	<0.1	0.49	
11/18/2019								0.52	
11/19/2019						1.2	0.033 (J)		
12/4/2019						1.4	0.22 (J)		
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						0.53	0.11 (J)	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	<0.1								
3/27/2020		<0.1		<0.1	0.066 (J)	<0.1	<0.1	<0.1	0.06 (J)
3/28/2020			<0.1						
10/12/2020					<0.1				0.34
10/13/2020	<0.1	<0.1		<0.1		<0.1	<0.1	<0.1	
10/14/2020			<0.1						
3/2/2021						<0.1			
3/3/2021	<0.1	<0.1		<0.1	0.082 (J)		<0.1	<0.1	0.32
3/4/2021			<0.1						

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/19/2024 3:41 PM View: Resample Interwell PLs
Plant McManus Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-16 (bg)	MCM-06	MCM-02 (bg)	MCM-11 (bg)	MCM-15 (bg)	MCM-20 (bg)	MCM-19 (bg)	MCM-18 (bg)
9/14/2021	<0.1	<0.1	<0.1	<0.1	0.18	<0.1	<0.1	<0.1	<0.1
3/1/2022			<0.1				<0.1	<0.1	
3/2/2022	<0.1			<0.1	0.097 (J)	<0.1			<0.1
3/3/2022		<0.1							
9/20/2022			1.1 (J)				4.3 (Jo)	<0.1	0.61 (J)
9/21/2022	<0.1	<0.1		<0.1	0.11	<0.1			
2/28/2023							3.32 (J)	0.38 (J)	0.407 (J)
3/1/2023	<0.1	0.0397 (J)		<0.1	0.101 (J)				
3/2/2023			0.419 (J)			0.0397 (J)			
6/14/2023			<0.1						
9/12/2023	<0.1	<0.1				<0.1			
9/13/2023					0.362 (J)		3.98 (J)	<0.1	
9/14/2023			0.246 (J)	<0.1					0.251 (J)
12/6/2023			1.1 (J)						

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/19/2024 3:41 PM View: Resample Interwell PLs

Plant McManus Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-16 (bg)	MCM-06	MCM-11 (bg)	MCM-02 (bg)	MCM-15 (bg)	MCM-19 (bg)	MCM-18 (bg)	MCM-20 (bg)
8/30/2016	17	24							
8/31/2016			21						
11/30/2016	33	26	19						
2/15/2017	83	30							
2/16/2017			22						
5/31/2017				40	46				
6/1/2017	51	24							
6/2/2017			28			13			
8/2/2017				34	43	14			
8/15/2017				24					
8/16/2017	36				41				
8/17/2017		26	69			14			
4/4/2018				33.9		13.4			
4/5/2018					33.4				
5/8/2018				35.7		14.8			
5/9/2018					36				
6/19/2018	50.3			23.7	35.5	15.5			
6/20/2018		31.2	33						
9/25/2018				25.6					
9/26/2018	54.1	36.8			39.6	23			
9/27/2018			29.4 (D)						
11/6/2018				25.2					
11/7/2018	45.6	35	734		35.8	22.2			
3/6/2019			1220 (J)						
3/24/2019			413						
3/25/2019	43	40.1		24.9	34.2	22.4			
10/15/2019						17.9			
10/16/2019	31.9	28.5		17.4	24.4				
10/17/2019			507						
11/7/2019							832	379	1010
11/18/2019								737	
11/19/2019							795		1140
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							611	254	798
2/4/2020							599	432	1120
2/13/2020							761	300	833
3/26/2020	36.2								
3/27/2020		31.2		23.4	28.6	14.6	836	219	700
3/28/2020			701						
10/12/2020				19.3				191	
10/13/2020	32.3	26.8			27.6	7.6	609		638
10/14/2020			510						
3/2/2021						8			
3/3/2021	33.8	30.5		19.9	27.6		<1	171	743
3/4/2021			596						
9/14/2021	34.2	24.4	490	33.1	30.4	16.7	995	134	659
3/1/2022			440				158		543

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/19/2024 3:41 PM View: Resample Interwell PLs
Plant McManus Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-16 (bg)	MCM-06	MCM-11 (bg)	MCM-02 (bg)	MCM-15 (bg)	MCM-19 (bg)	MCM-18 (bg)	MCM-20 (bg)
3/2/2022	30.8			19.5	25.7	16		186	
3/3/2022		20.4							
9/20/2022			320				740	160	750
9/21/2022	39	24		23	29	6.3			
2/28/2023							820	186	950
3/1/2023	45.3	25.8		21.4	27.4				
3/2/2023			157			8.12			
6/13/2023									1030
6/14/2023			187						
9/12/2023	47.5	25.2				6.48			
9/13/2023				42			1300		832
9/14/2023			263		28.8			165	
12/6/2023			258						917

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/19/2024 3:41 PM View: Resample Interwell PLs

Plant McManus Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-16 (bg)	MCM-06	MCM-02 (bg)	MCM-11 (bg)	MCM-15 (bg)	MCM-18 (bg)	MCM-20 (bg)	MCM-19 (bg)
8/30/2016	86	99							
8/31/2016			4160						
11/30/2016	131	111	3950						
2/15/2017	212	170							
2/16/2017			4600						
5/31/2017				123	257				
6/1/2017	103	98							
6/2/2017			4470			69			
8/2/2017				136	183	35			
8/15/2017					90				
8/16/2017	65			124					
8/17/2017		84	5450			51			
4/4/2018					197	90			
4/5/2018				128					
5/8/2018					225	89			
5/9/2018				127					
6/19/2018	142			143	112	110			
6/20/2018		123	4940						
9/25/2018					137				
9/26/2018	133	117		132		124			
9/27/2018			4480						
11/6/2018					89				
11/7/2018	121	120	15100	134		125			
3/6/2019			19000						
3/24/2019			13700						
3/25/2019	116	101		111	74	98			
10/15/2019						107			
10/16/2019	104	95		96	82				
10/17/2019			16100						
11/7/2019							4140	13500	10900
11/18/2019							4030		
11/19/2019								13300	10000
12/4/2019								13200	11000
12/5/2019							3840		
12/17/2019									9860
12/18/2019							3880	12500	
1/8/2020								12300	9760
1/9/2020							3520		
1/21/2020							3280	12000	10100
2/4/2020							3220	12300	10600
2/13/2020							3580	12400	10900
3/26/2020	114								
3/27/2020		110		119	87	110	3090	14600	14300
3/28/2020			18800						
10/12/2020					94		2920		
10/13/2020	113	115		118		63		13900	6600
10/14/2020			15200						
3/2/2021						40			
3/3/2021	99	122		84	66		2620	11400	11000
3/4/2021			14200						
9/14/2021	66	<25	11800	76	191	96	2190	10300	14600
3/1/2022			9040					10500	4050

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/19/2024 3:41 PM View: Resample Interwell PLs
Plant McManus Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-16 (bg)	MCM-06	MCM-02 (bg)	MCM-11 (bg)	MCM-15 (bg)	MCM-18 (bg)	MCM-20 (bg)	MCM-19 (bg)
3/2/2022	97			94	124	103	3100		
3/3/2022		104							
9/20/2022			3900				2000	8600	10000
9/21/2022	100	78		90	110	38			
2/28/2023							2090	8720	10400
3/1/2023	78	56		73	67				
3/2/2023			3120			35			
6/13/2023								11300	
6/14/2023			3370						
9/12/2023	80	42				20			
9/13/2023					274			10300	15500
9/14/2023			4240	76			2040		
12/6/2023			3780					11400	

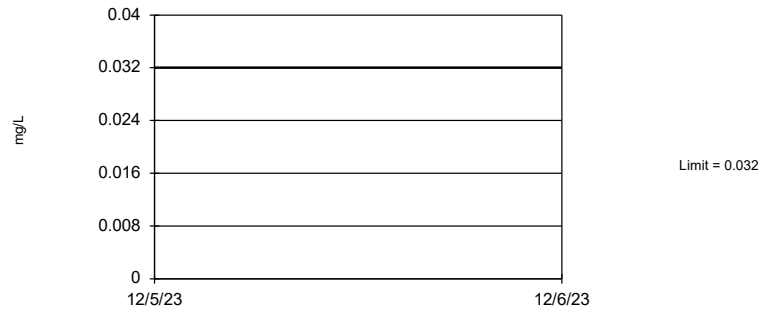
FIGURE N.

Upper Tolerance Limits Summary Table - December 2023 Resample

Plant McManus Data: McManus Ash Pond Data Printed 1/19/2024, 3:44 PM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Bq N</u>	<u>Bq Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	0.032	144	n/a	n/a	14.58	n/a	n/a	0.0006197	NP Inter(normality)
Fluoride (mg/L)	3.98	142	n/a	n/a	49.3	n/a	n/a	0.0006867	NP Inter(normality)

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 144 background values. 14.58% NDs. 96.68% coverage at alpha=0.01; 97.85% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.0006197.

Constituent: Arsenic Analysis Run 1/19/2024 3:43 PM View: Resample UTLs
Plant McManus Data: McManus Ash Pond Data

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 142 background values. 49.3% NDs. 96.68% coverage at alpha=0.01; 97.85% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.0006867.

Constituent: Fluoride Analysis Run 1/19/2024 3:43 PM View: Resample UTLs
Plant McManus Data: McManus Ash Pond Data

FIGURE O.

Confidence Intervals - December 2023 Resample - Significant Results

Plant McManus Data: McManus Ash Pond Data Printed 1/19/2024, 3:47 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig. N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	MCM-06	0.3708	0.2102	0.032	Yes 25	0.2905	0.1612	0	None	No	0.01	Param.

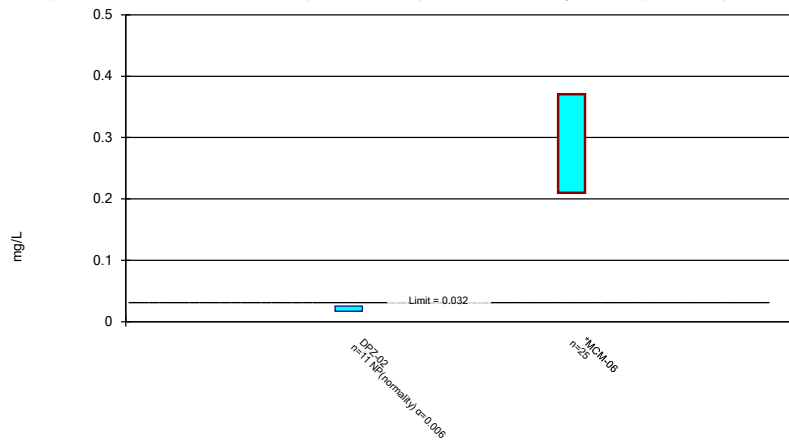
Confidence Intervals - December 2023 Resample - All Results

Plant McManus Data: McManus Ash Pond Data Printed 1/19/2024, 3:47 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	DPZ-02	0.0254	0.017	0.032	No 11	0.02335	0.009349	9.091 None	No	0.006	NP (normality)
Arsenic (mg/L)	MCM-06	0.3708	0.2102	0.032	Yes 25	0.2905	0.1612	0 None	No	0.01	Param.
Fluoride (mg/L)	MCM-06	0.41	0.1	4	No 21	0.2863	0.3039	42.86 None	No	0.01	NP (normality)

Parametric and Non-Parametric (NP) Confidence Interval

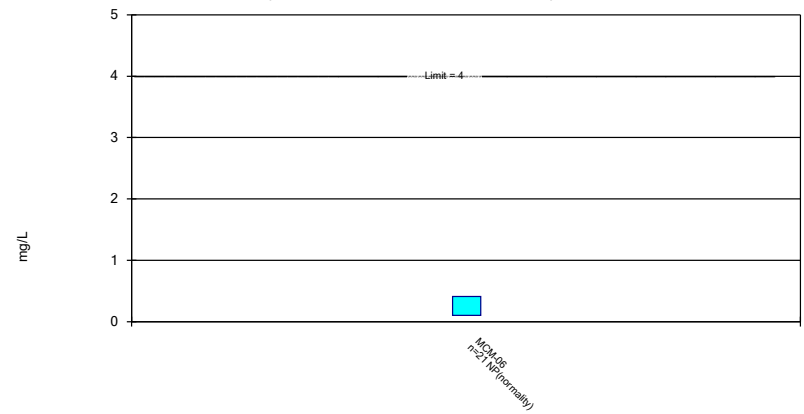
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 1/19/2024 3:46 PM View: Resample Confidence Intervals
Plant McManus Data: McManus Ash Pond Data

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Fluoride Analysis Run 1/19/2024 3:46 PM View: Resample Confidence Intervals
Plant McManus Data: McManus Ash Pond Data

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 1/19/2024 3:47 PM View: Resample Confidence Intervals

Plant McManus Data: McManus Ash Pond Data

	DPZ-02	MCM-06
8/31/2016		0.212
11/30/2016		0.129
2/16/2017		0.257
6/2/2017		0.0559
8/17/2017		0.458
6/20/2018		0.44
9/27/2018		0.27
11/7/2018		0.5
11/27/2018		0.5
3/6/2019		0.49
3/26/2019		0.3
7/2/2019		0.37
8/28/2019		0.5
10/17/2019		0.34
3/28/2020	<0.1	0.3
10/14/2020		0.43
10/15/2020	0.021	
3/4/2021	0.017 (J)	0.35
9/14/2021	0.022	0.51
3/1/2022	0.015 (J)	0.24
6/28/2022	0.025	0.17
9/20/2022	0.021	0.18
3/2/2023	0.0202	0.0764
6/13/2023	0.0213	
6/14/2023		0.0607
9/14/2023	0.0254	0.0653
12/6/2023	0.0189 (J)	0.0581
Mean	0.02335	0.2905
Std. Dev.	0.009349	0.1612
Upper Lim.	0.0254	0.3708
Lower Lim.	0.017	0.2102

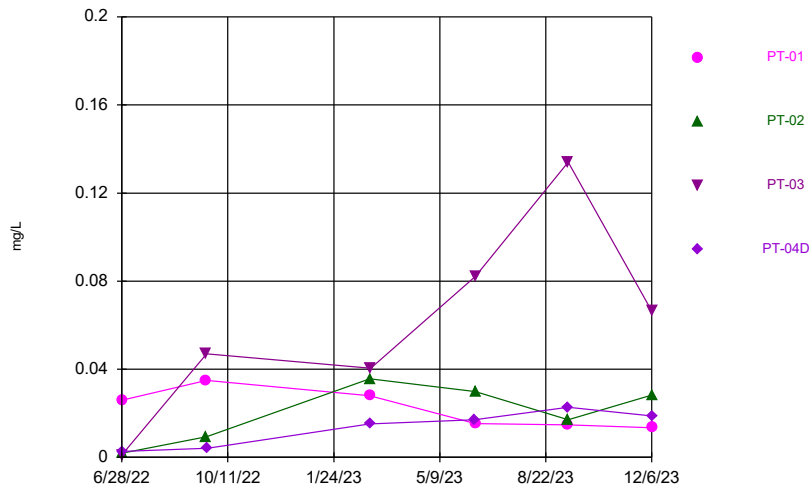
Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 1/19/2024 3:47 PM View: Resample Confidence Intervals
Plant McManus Data: McManus Ash Pond Data

	MCM-06
8/31/2016	0.41
11/30/2016	0.61
2/16/2017	0.3 (J)
6/2/2017	0.19 (J)
8/17/2017	0.26 (J)
6/20/2018	0.22 (J)
9/27/2018	0.068 (J)
11/7/2018	10.3 (o)
3/6/2019	<0.1
3/24/2019	0.19 (J)
8/28/2019	<0.1
10/17/2019	<0.1
3/28/2020	<0.1
10/14/2020	<0.1
3/4/2021	<0.1
9/14/2021	<0.1
3/1/2022	<0.1
9/20/2022	1.1 (J)
3/2/2023	0.419 (J)
6/14/2023	<0.1
9/14/2023	0.246 (J)
12/6/2023	1.1 (J)
Mean	0.2863
Std. Dev.	0.3039
Upper Lim.	0.41
Lower Lim.	0.1

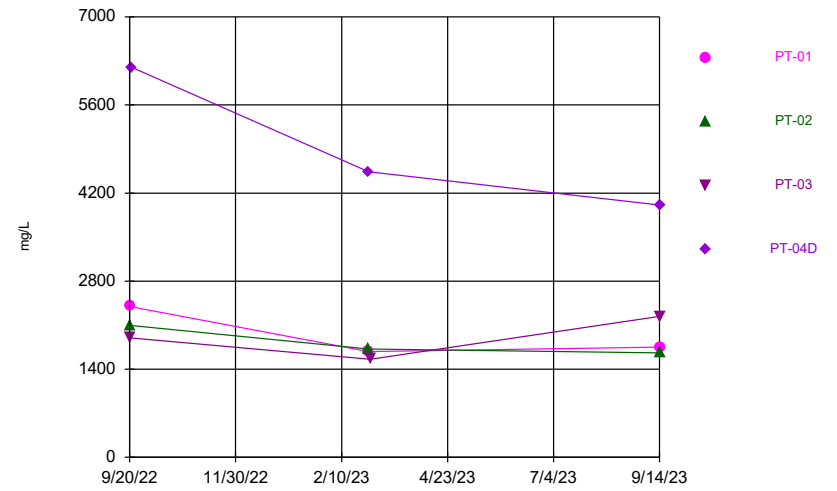
FIGURE P.

Time Series



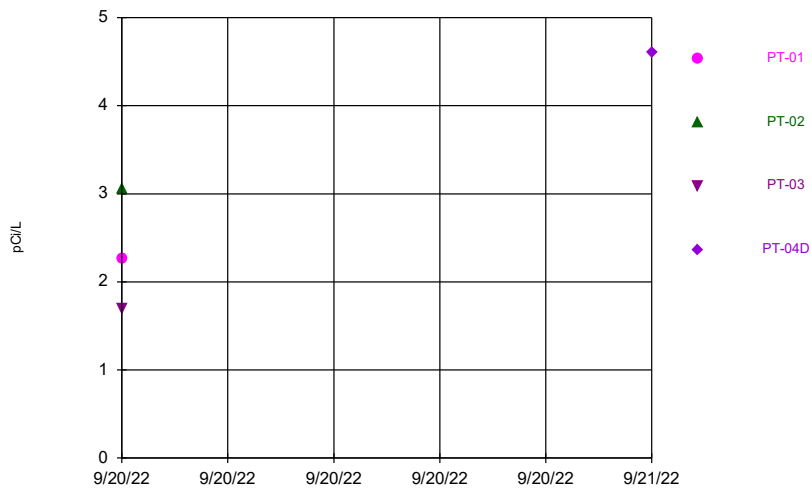
Constituent: Arsenic Analysis Run 1/19/2024 4:01 PM View: Piezometers
Plant McManus Data: McManus Ash Pond Data

Time Series



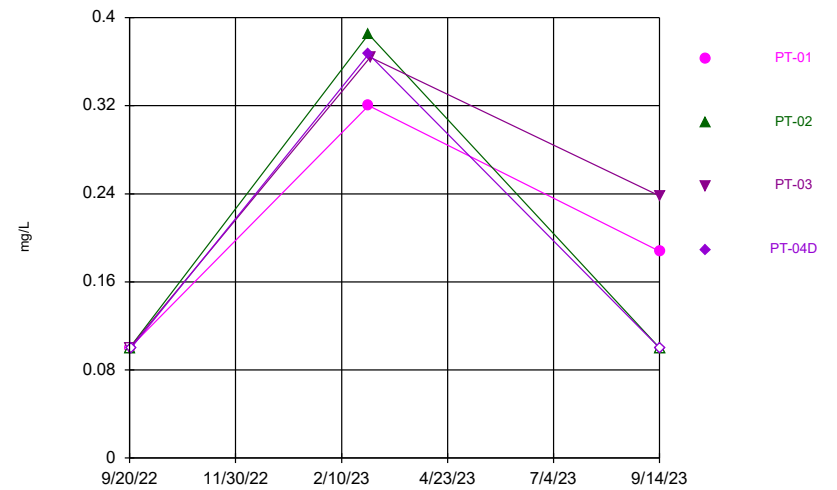
Constituent: Chloride Analysis Run 1/19/2024 4:01 PM View: Piezometers
Plant McManus Data: McManus Ash Pond Data

Time Series



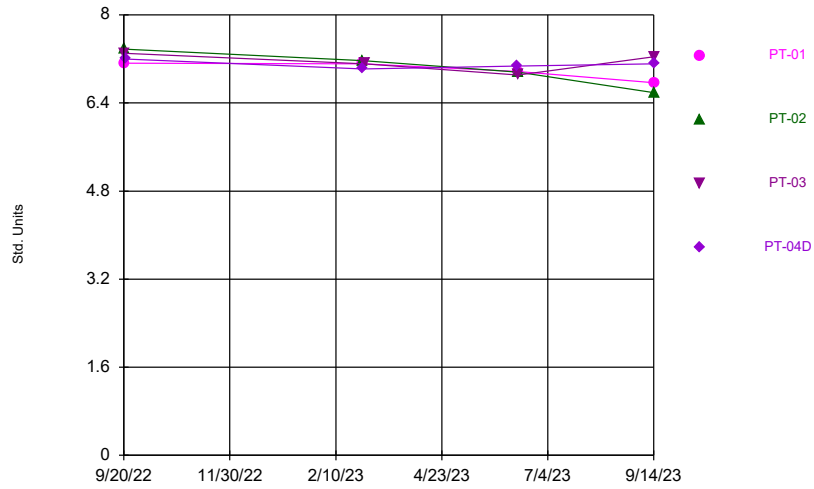
Constituent: Combined Radium 226 + 228 Analysis Run 1/19/2024 4:01 PM View: Piezometers
Plant McManus Data: McManus Ash Pond Data

Time Series



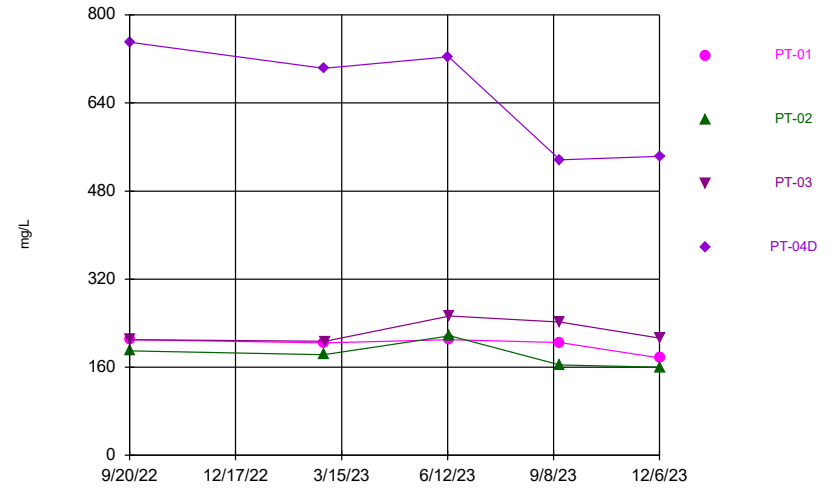
Constituent: Fluoride Analysis Run 1/19/2024 4:01 PM View: Piezometers
Plant McManus Data: McManus Ash Pond Data

Time Series



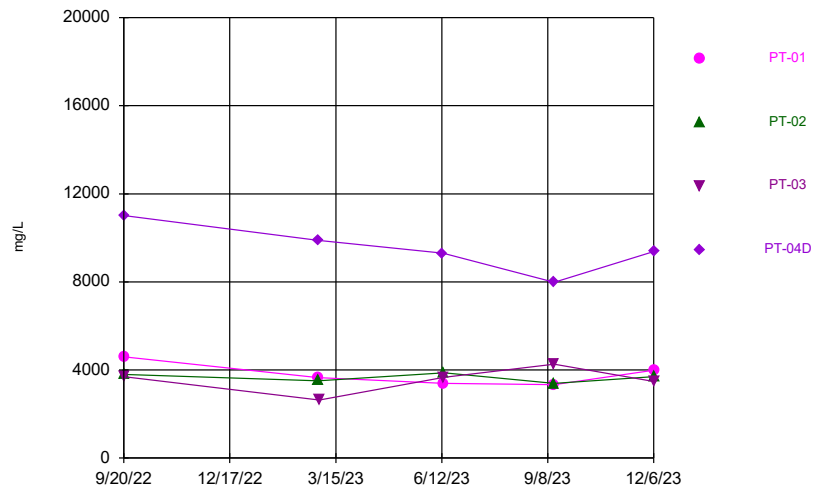
Constituent: pH, field Analysis Run 1/19/2024 4:01 PM View: Piezometers
Plant McManus Data: McManus Ash Pond Data

Time Series



Constituent: Sulfate Analysis Run 1/19/2024 4:01 PM View: Piezometers
Plant McManus Data: McManus Ash Pond Data

Time Series



Constituent: Total Dissolved Solids Analysis Run 1/19/2024 4:01 PM View: Piezometers
Plant McManus Data: McManus Ash Pond Data

Time Series

Constituent: Arsenic (mg/L) Analysis Run 1/19/2024 4:01 PM View: Piezometers
Plant McManus Data: McManus Ash Pond Data

	PT-01	PT-02	PT-03	PT-04D
6/28/2022	0.026		0.0011	0.0027
6/29/2022		0.0019		
9/20/2022	0.035	0.0094	0.047	
9/21/2022				0.0041
3/1/2023	0.0279	0.0356		0.0152
3/2/2023			0.0405	
6/13/2023				0.017
6/14/2023	0.0153	0.0298	0.0821	
9/14/2023	0.0147	0.0171	0.134	0.0228
12/6/2023	0.0135	0.0283	0.0665	0.0188 (J)

Time Series

Constituent: Chloride (mg/L) Analysis Run 1/19/2024 4:01 PM View: Piezometers

Plant McManus Data: McManus Ash Pond Data

	PT-01	PT-02	PT-03	PT-04D
9/20/2022	2400	2100	1900	
9/21/2022				6200
3/1/2023	1680	1720		4540
3/2/2023			1560	
9/14/2023	1750	1660	2240	4010

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 1/19/2024 4:01 PM View: Piezometers
Plant McManus Data: McManus Ash Pond Data

	PT-01	PT-02	PT-03	PT-04D
9/20/2022	2.26	3.06	1.69	
9/21/2022				4.61

Time Series

Constituent: Fluoride (mg/L) Analysis Run 1/19/2024 4:01 PM View: Piezometers
Plant McManus Data: McManus Ash Pond Data

	PT-01	PT-02	PT-03	PT-04D
9/20/2022	<0.1	<0.1	<0.1	
9/21/2022				<0.1
3/1/2023	0.32 (J)	0.385 (J)		0.367 (J)
3/2/2023			0.364 (J)	
9/14/2023	0.188 (J)	<0.1	0.238 (J)	<0.1

Time Series

Constituent: pH, field (Std. Units) Analysis Run 1/19/2024 4:01 PM View: Piezometers
Plant McManus Data: McManus Ash Pond Data

	PT-01	PT-02	PT-03	PT-04D
9/20/2022	7.12	7.38	7.3	
9/21/2022				7.2
3/1/2023	7.11	7.17		7.02
3/2/2023			7.11	
6/13/2023				7.07
6/14/2023	6.97	6.96	6.91	
9/14/2023	6.77	6.59	7.24	7.11

Time Series

Constituent: Sulfate (mg/L) Analysis Run 1/19/2024 4:01 PM View: Piezometers
Plant McManus Data: McManus Ash Pond Data

	PT-01	PT-02	PT-03	PT-04D
9/20/2022	210	190	210	
9/21/2022				750
3/1/2023	204	183		703
3/2/2023			207	
6/13/2023				724
6/14/2023	210	217	253	
9/14/2023	205	164	242	537
12/6/2023	177	160	213	543

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/19/2024 4:01 PM View: Piezometers
Plant McManus Data: McManus Ash Pond Data

	PT-01	PT-02	PT-03	PT-04D
9/20/2022	4600	3800	3700	
9/21/2022				11000
3/1/2023	3660	3510		9890
3/2/2023			2640	
6/13/2023				9300
6/14/2023	3390	3870	3670	
9/14/2023	3330	3390	4270	7990
12/6/2023	3990	3700	3480	9380

APPENDIX E

ANNUAL POTABLE WELL SURVEY

Mcmanus

Crispin Blvd
Brunswick, GA 31523

Inquiry Number: 7512385.1s
December 05, 2023

The EDR GeoCheck® Report



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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GEOCHECK® - PHYSICAL SETTING SOURCE REPORT

TARGET PROPERTY ADDRESS

MCMANUS
CRISPIN BLVD
BRUNSWICK, GA 31523

TARGET PROPERTY COORDINATES

Latitude (North):	31.215613 - 31° 12' 56.21"
Longitude (West):	81.545353 - 81° 32' 43.27"
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	448053.3
UTM Y (Meters):	3453441.0
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).

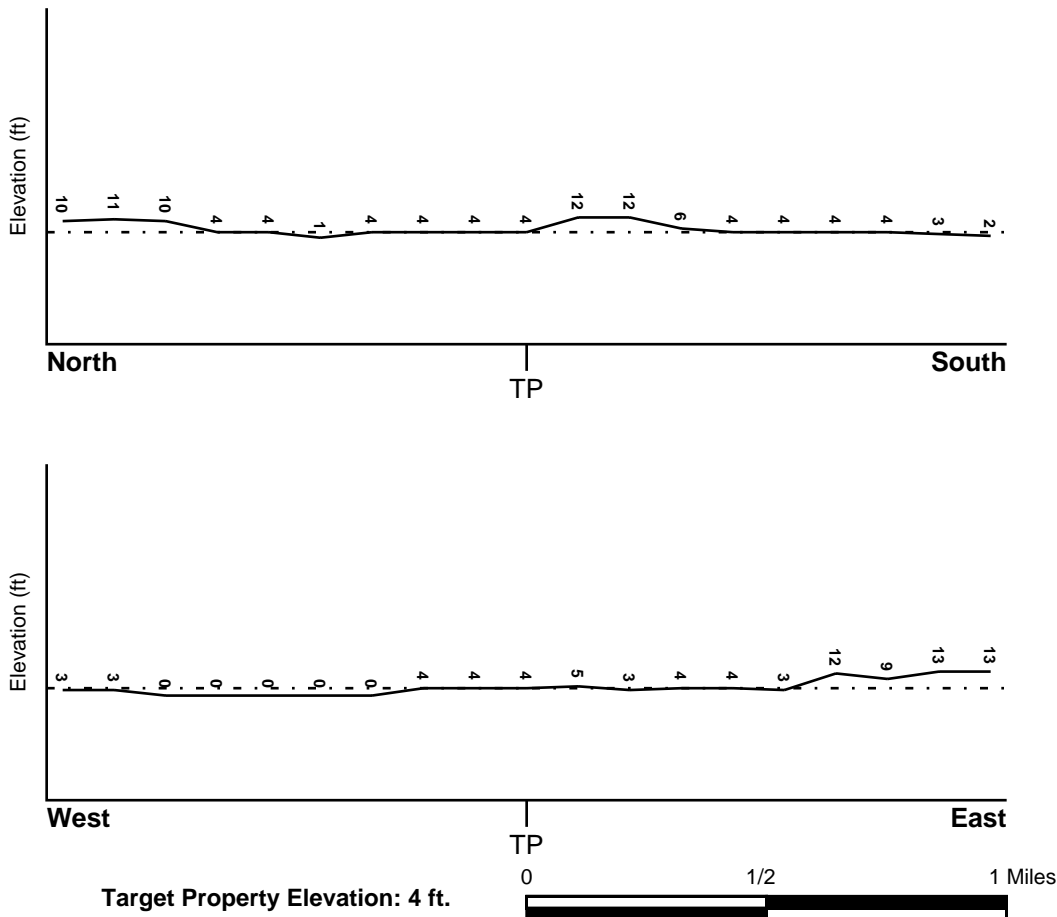
TOPOGRAPHIC INFORMATION

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 North

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



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

<u>Flood Plain Panel at Target Property</u>	<u>FEMA Source Type</u>
13127C0208F	FEMA FIRM Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
13127C0206F	FEMA FIRM Flood data
13039C0075F	FEMA FIRM Flood data
13127C0209F	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
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.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
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

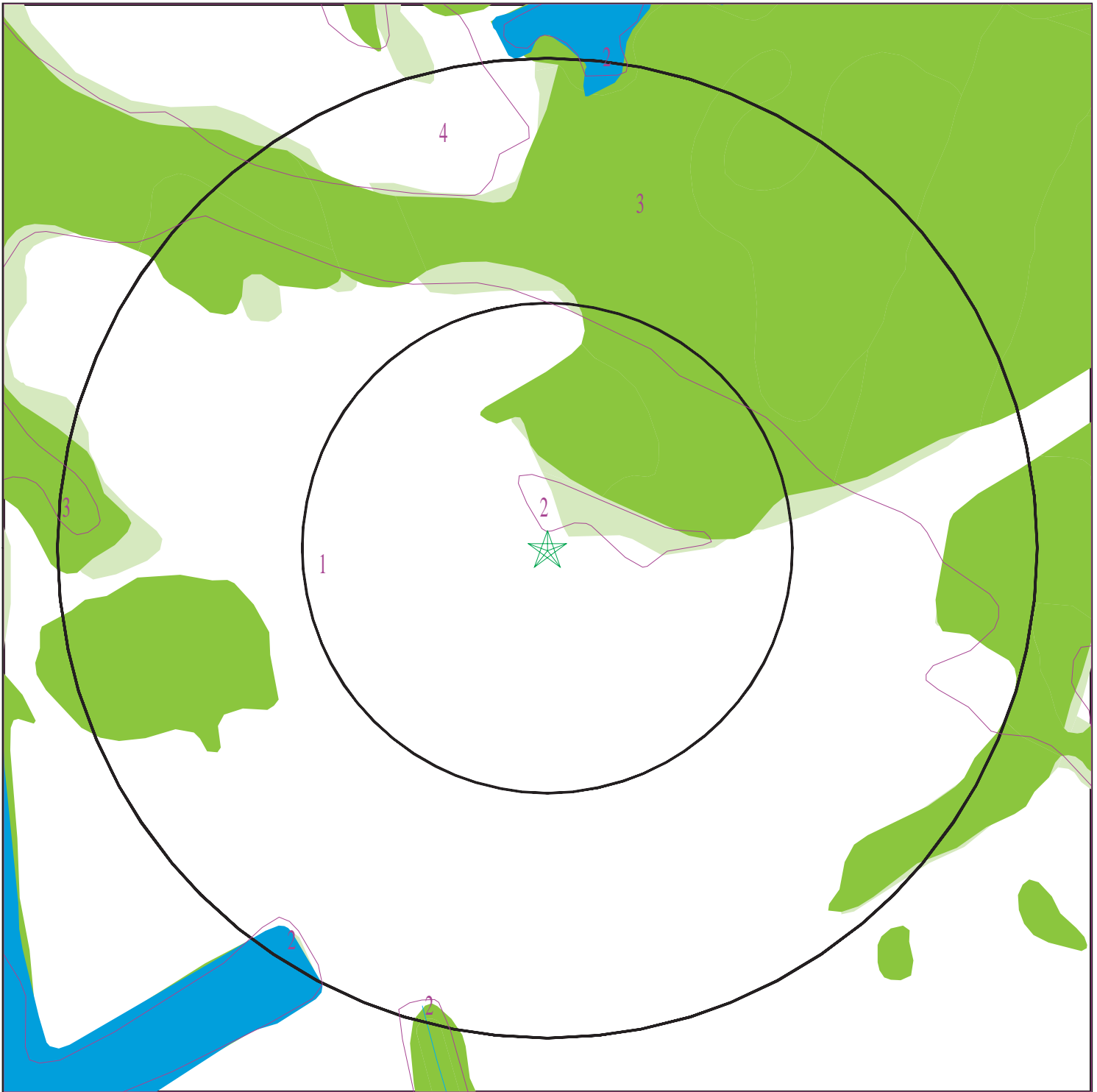
Era: Cenozoic
System: Quaternary
Series: Holocene
Code: Qh *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

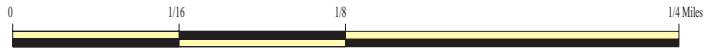
Category: Stratified Sequence

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 - 7512385.1s



- ★ Target Property
- SSURGO Soil
- Water



SITE NAME: Mcmanus
ADDRESS: Crispin Blvd
Brunswick GA 31523
LAT/LONG: 31.215613 / 81.545353

CLIENT: ARCADIS U.S., Inc.
CONTACT: Rebecca Steever
INQUIRY #: 7512385.1s
DATE: December 05, 2023 9:32 am

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: 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							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		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

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 2

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: 3

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							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		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

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
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: 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							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		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

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
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

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

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	1.000
State Database	1.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A4	USGS40000255109	0 - 1/8 Mile SW
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 ENE
E15	USGS40000255133	1/2 - 1 Mile East
F17	USGS40000255192	1/2 - 1 Mile NE
G19	USGS40000255185	1/2 - 1 Mile NE
H22	USGS40000255223	1/2 - 1 Mile NNW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
I24	USGS40000255124	1/2 - 1 Mile East
G25	USGS40000255189	1/2 - 1 Mile NE
J28	USGS40000255142	1/2 - 1 Mile ENE
J31	USGS40000255151	1/2 - 1 Mile ENE
G32	USGS40000255198	1/2 - 1 Mile NE
K34	USGS40000255221	1/2 - 1 Mile NNE
L37	USGS40000255235	1/2 - 1 Mile North
M39	USGS40000255178	1/2 - 1 Mile ENE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

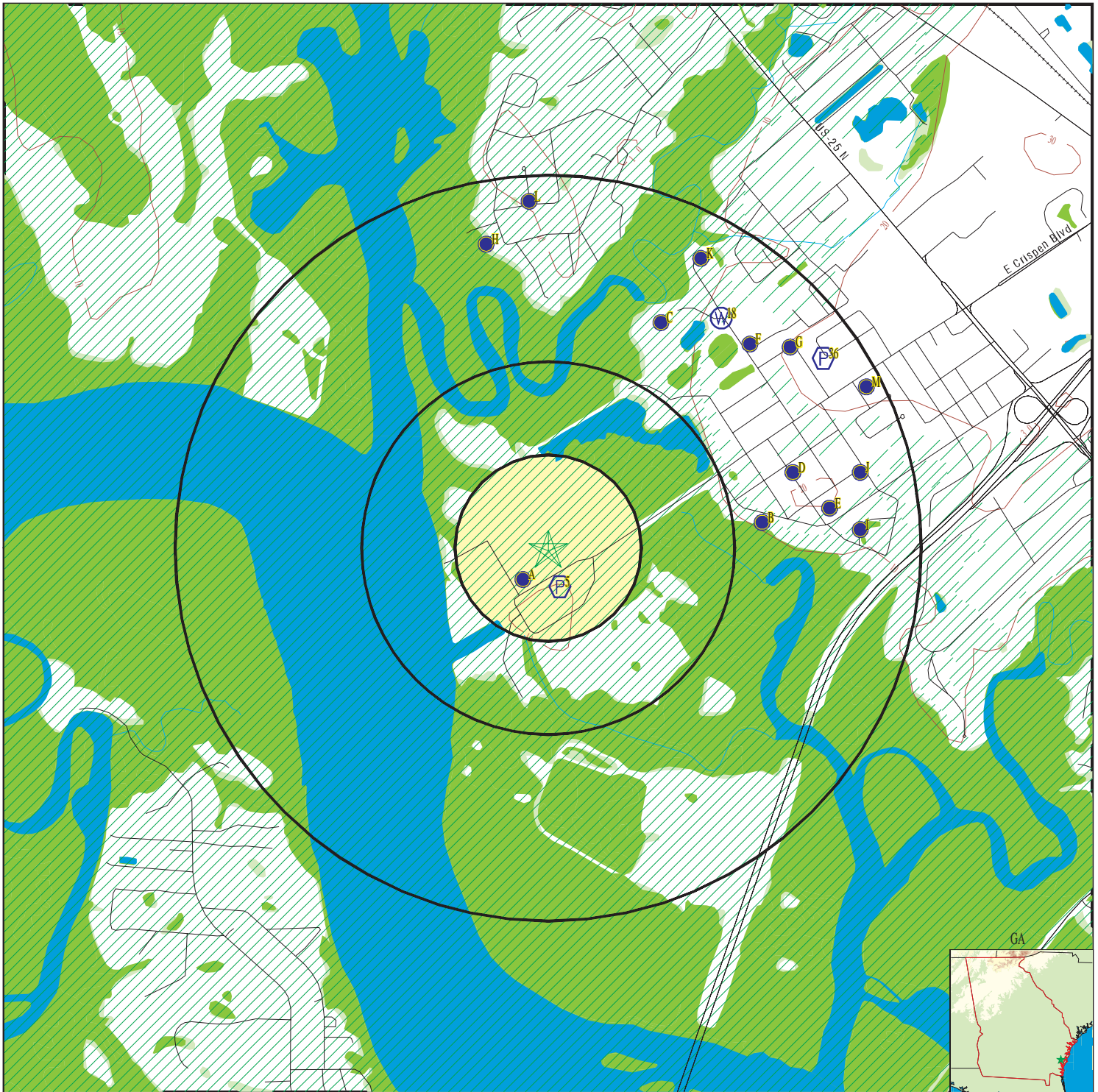
MAP ID	WELL ID	LOCATION FROM TP
5	GA1270027	0 - 1/8 Mile SSE
36	GA1270058	1/2 - 1 Mile NE

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	0000005276	0 - 1/8 Mile SW
A2	0000005277	0 - 1/8 Mile SW
A3	0000005278	0 - 1/8 Mile SW
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 ENE
E14	0000005289	1/2 - 1 Mile East
F16	0000005320	1/2 - 1 Mile NE
18	GAPR01000000052	1/2 - 1 Mile NE
G20	0000005317	1/2 - 1 Mile NE
H21	0000005339	1/2 - 1 Mile NNW
I23	0000005286	1/2 - 1 Mile East
G26	0000005318	1/2 - 1 Mile NE
G27	0000005319	1/2 - 1 Mile NE
J29	0000005292	1/2 - 1 Mile ENE
J30	0000005298	1/2 - 1 Mile ENE
G33	0000005323	1/2 - 1 Mile NE
K35	0000005338	1/2 - 1 Mile NNE
L38	0000005350	1/2 - 1 Mile North
M40	0000005313	1/2 - 1 Mile ENE

PHYSICAL SETTING SOURCE MAP - 7512385.1s



- 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
- Wildlife Areas
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory



SITE NAME: Mcmanus
 ADDRESS: Crispin Blvd
 Brunswick GA 31523
 LAT/LONG: 31.215613 / 81.545353

CLIENT: ARCADIS U.S., Inc.
 CONTACT: Rebecca Steever
 INQUIRY #: 7512385.1s
 DATE: December 05, 2023 9:32 am

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

A1
SW
0 - 1/8 Mile
Higher

GA WELLS 000005276

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:	000005276

A2
SW
0 - 1/8 Mile
Higher

GA WELLS 000005277

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:	000005277

A3
SW
0 - 1/8 Mile
Higher

GA WELLS 000005278

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:	000005278

A4
SW
0 - 1/8 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

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Contrib Drainage Area:	Not Reported	Contrib Drainage Area Units:	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

**5
SSE
0 - 1/8 Mile
Higher**

FRDS PWS GA1270027

Epa region:	04	State:	GA
Pwsid:	GA1270027	Pwsname:	GEORGIA POWER-PLANT MCMANUS
Cityserved:	Not Reported	Stateserved:	GA
Ziperved:	Not Reported	Fipscounty:	13127
Status:	Active	Retpopsrvd:	40
Pwssvconn:	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

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

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 Violation/Reminder Notice		
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 Public Notif requested	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		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

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		

**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 000005287

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:	000005287

**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

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

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 000005325

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:	000005325

**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

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

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 000005324

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:	000005324

**D12
ENE
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
ENE
1/2 - 1 Mile
Higher**

GA WELLS 000005297

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:	000005297

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

E14
East
1/2 - 1 Mile
Higher

GA WELLS 000005289

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:	000005289

E15
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		

F16
NE
1/2 - 1 Mile
Higher

GA WELLS 000005320

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:	000005320

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

F17
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 Units:	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		

18
NE
1/2 - 1 Mile
Higher

GA WELLS GAPR01000000052

Report ID:	1	Well Type:	Drilled Well
Well Age (yrs):	2	Well Depth (ft):	0
Coliform Test:	Satisfactory	Date Taken:	19-MAY-22
Results Date:	20-MAY-22	Coliform Present:	No
Fecal Present:	No		

G19
NE
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 Units:	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

G20
NE
1/2 - 1 Mile
Higher

GA WELLS 000005317

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:	000005317

H21
NNW
1/2 - 1 Mile
Higher

GA WELLS 000005339

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:	000005339

H22
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		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

I23
East
1/2 - 1 Mile
Higher

GA WELLS 000005286

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:	000005286

I24
East
1/2 - 1 Mile
Higher

FED USGS USGS4000255124

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		

G25
NE
1/2 - 1 Mile
Higher

FED USGS USGS4000255189

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

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

G26
NE
1/2 - 1 Mile
Higher

GA WELLS 000005318

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:	000005318

G27
NE
1/2 - 1 Mile
Higher

GA WELLS 000005319

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:	000005319

J28
ENE
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

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

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

J29
ENE
1/2 - 1 Mile
Higher

GA WELLS 000005292

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:	000005292

J30
ENE
1/2 - 1 Mile
Higher

GA WELLS 000005298

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:	000005298

J31
ENE
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

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Contrib Drainage Area:	Not Reported	Contrib Drainage Area Units:	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		

**G32
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 Units:	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

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

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

G33
NE
1/2 - 1 Mile
Higher

GA WELLS 000005323

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:	000005323

K34
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

K35
NNE
1/2 - 1 Mile
Higher

GA WELLS 000005338

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:	000005338

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

36
NE
1/2 - 1 Mile
Higher

FRDS PWS GA1270058

Epa region:	04	State:	GA
Pwsid:	GA1270058	Pwsname:	OAK ACRES SUBDIVISION
Cityserved:	Not Reported	Stateserved:	GA
Ziperved:	Not Reported	Fipscounty:	13127
Status:	Active	Retpopsrvd:	36
Pwssvconn:	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		

L37
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

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

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		

L38
North
1/2 - 1 Mile
Higher

GA WELLS 000005350

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:	000005350

M39
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		

M40
ENE
1/2 - 1 Mile
Higher

GA WELLS 000005313

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

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Casing dia: 4.5
Depth to top: 120
Opening type: X
Discharge: Not Reported
Aquifer code: Not Reported

Casing matl: P
Depth to bot: 160
Constr date: 19900715
Prim use: H
Edr id: 0000005313

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

<u>Area</u>	<u>Average Activity</u>	<u>% <4 pCi/L</u>	<u>% 4-20 pCi/L</u>	<u>% >20 pCi/L</u>
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.

OTHER STATE DATABASE INFORMATION

A listing of Private Water Well locations

Georgia Department of Public Health

Telephone: (404) 657-2700

A listing of Private Water Well locations

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

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.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

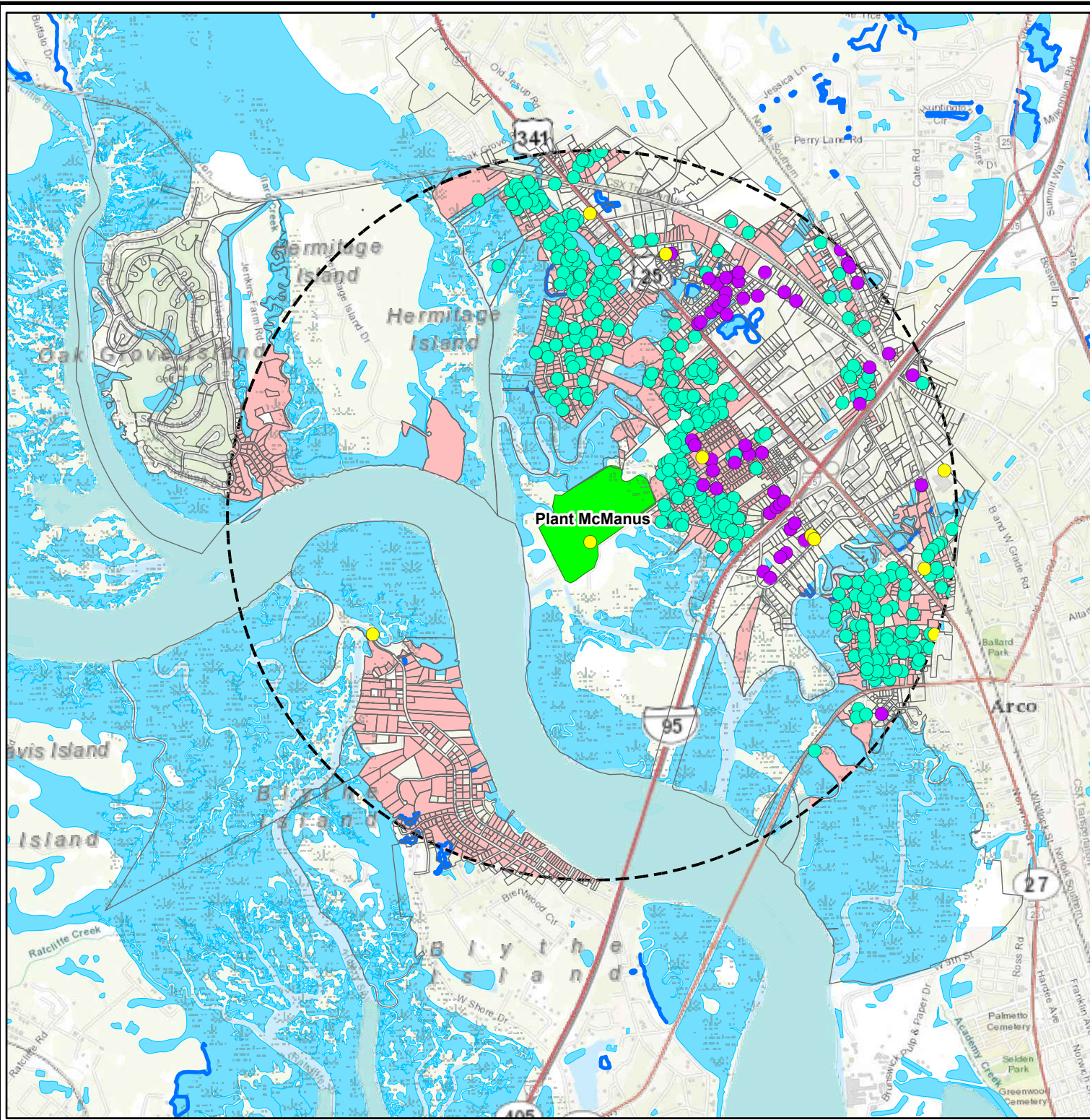
Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

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

STREET AND ADDRESS INFORMATION

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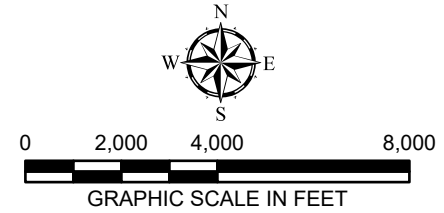
PATH: T:_ENVGA_PowerPlant_McManus_Brunswick_GA\Water_Well_Survey_Proj\Water_Wells.aprx Fig. 1_Water_Well_Survey_Last Saved by: idrum 1/5/2024



LEGEND

- Water Wells
- Inactive Private Irrigation/Drinking Well
- Private Drinking Well
- 2-Mile Radius
- Ash Pond 1
- Hydro Lines
- Lakes and Ponds
- Parcels
- Parcels Identified as Likely Having a Well

NOTE:
 1) WELLS IDENTIFIED BY PARCEL LOCATION BUT THAT DO NOT HAVE AN EXACT LOCATION AVAILABLE ARE PRESENTED AS INSIDE THE 2-MILE RADIUS IF THE PARCEL STRADDLES THE INVESTIGATION BOUNDARY.



Georgia Power

PLANT MCMANUS ASH POND 1
BRUNSWICK, GA

WATER WELL SURVEY

FIGURE
1